Logic Element Cartridges

*Powered by Sun **QuickPrint**,*
your on-demand, customized catalogue solution.

Table of Contents

DKDC	Normally closed, balanced poppet, logic element - pilot-to-open	1
DKDS	Normally closed, balanced poppet, logic element - pilot-to-open	2
DKFC	Normally closed, balanced poppet, logic element - pilot-to-open	3
DKFS	Normally closed, balanced poppet, logic element - pilot-to-open	4
DKHC	Normally closed, balanced poppet, logic element - pilot-to-open	5
DKHS	Normally closed, balanced poppet, logic element - pilot-to-open	6
DKJC	Normally closed, balanced poppet, logic element - pilot-to-open	7
DKJS	Normally closed, balanced poppet, logic element - pilot-to-open	8
DKDD	Normally closed, balanced poppet, logic element - vent-to-open	9
DKDR	Normally closed, balanced poppet, logic element - vent-to-open	10
DKFD	Normally closed, balanced poppet, logic element - vent-to-open	11
DKFR	Normally closed, balanced poppet, logic element - vent-to-open	12
DKHD	Normally closed, balanced poppet, logic element - vent-to-open	13
DKHR	Normally closed, balanced poppet, logic element - vent-to-open	14
DKJD	Normally closed, balanced poppet, logic element - vent-to-open	15
DKJR	Normally closed, balanced poppet, logic element - vent-to-open	16
DODC	Normally open, balanced poppet, logic element - pilot-to-close	17
DODS	Normally open, balanced poppet, logic element - pilot-to-close	18
DOFC	Normally open, balanced poppet, logic element - pilot-to-close	19
DOFS	Normally open, balanced poppet, logic element - pilot-to-close	20

sun hydraulics

Table of Contents

DOHC	Normally open, balanced poppet, logic element - pilot-to-close	21
DOHS	Normally open, balanced poppet, logic element - pilot-to-close	22
DOJC	Normally open, balanced poppet, logic element - pilot-to-close	23
DOJS	Normally open, balanced poppet, logic element - pilot-to-close	24
DODD	Normally open, balanced poppet, logic element - vent-to-close	25
DODR	Normally open, balanced poppet, logic element - vent-to-close	26
DOFD	Normally open, balanced poppet, logic element - vent-to-close	27
DOFR	Normally open, balanced poppet, logic element - vent-to-close	28
DOHD	Normally open, balanced poppet, logic element - vent-to-close	29
DOHR	Normally open, balanced poppet, logic element - vent-to-close	30
DOJD	Normally open, balanced poppet, logic element - vent-to-close	31
DOJR	Normally open, balanced poppet, logic element - vent-to-close	32
LODC	Pilot-to-close, spring biased closed, unbalanced poppet logic element	33
LOFC	Pilot-to-close, spring biased closed, unbalanced poppet logic element	34
LOHC	Pilot-to-close, spring biased closed, unbalanced poppet logic element	35
LOJC	Pilot-to-close, spring biased closed, unbalanced poppet logic element	36
LOKC	Pilot-to-close, spring biased closed, unbalanced poppet logic element	37
LODA	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1	38
LOFA	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1	39
LOHA	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1	40

sun hydraulics

Table of Contents

LOJA	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1	41
LOKA	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1	42
LODB	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2	43
LOFB	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2	44
LOHB	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2	45
LOJB	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2	46
LOKB	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2	47
LODD	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2	48
LOFD	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2	49
LOHD	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2	50
LOJD	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2	51
LOKD	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2	52
LODA8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity	53
LOFA8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity	54
LOHA8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity	55
LOJA8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity	56
LOKA8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity	57
LODB8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity	58
LOFB8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity	59
LOHB8	Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity	60

LOJB8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity 61

LOKB8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity 62

LODD8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity 63

LOFD8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity 64

LOHD8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity 65

LOJD8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity 66

LOKD8 Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity 67

LODO Pilot-to-close, spring biased open, unbalanced poppet logic element 68

LOFO Pilot-to-close, spring biased open, unbalanced poppet logic element 69

LOHO Pilot-to-close, spring biased open, unbalanced poppet logic element 70

LOJO Pilot-to-close, spring biased open, unbalanced poppet logic element 71

LOKO Pilot-to-close, spring biased open, unbalanced poppet logic element 72

LOFOZ Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch 73

LOHOZ Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch 74

LOJOZ Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch 75

LOKOZ Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch 76

LKDC Pilot-to-open, spring biased closed, unbalanced poppet logic element 77

LKFC Pilot-to-open, spring biased closed, unbalanced poppet logic element 78

LKHC Pilot-to-open, spring biased closed, unbalanced poppet logic element 79

LKJC Pilot-to-open, spring biased closed, unbalanced poppet logic element 80

sun hydraulics

Table of Contents

LKFCZ	Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch	81
LKHCZ	Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch	82
LKJCZ	Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch	83
LOFCZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with position switch	84
LOHCZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with position switch	85
LOJCZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with position switch	86
LOKCZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with position switch	87
LOECZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with metering notches and position switch	88
LOGCZ	Pilot-to-close, spring biased closed, unbalanced poppet logic element with metering notches and position switch	89
DKDR8	Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open	90
DKFR8	Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open	91
DKHR8	Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open	92
DKJR8	Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open	93
DKDP	Normally closed, balanced poppet, logic element - pressure adjustable	94
DKFP	Normally closed, balanced poppet, logic element - pressure adjustable	95
DKHP	Normally closed, balanced poppet, logic element - pressure adjustable	96
DKJP	Normally closed, balanced poppet, logic element - pressure adjustable	97
DODR8	Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close	98
DOFR8	Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close	99
DOHR8	Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close	100

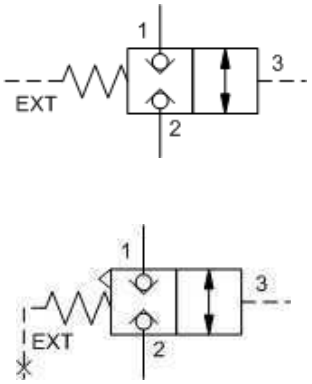
DOJR8	Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close	101
DODP	Normally open, balanced poppet, logic element - pressure adjustable	102
DOFP	Normally open, balanced poppet, logic element - pressure adjustable	103
DOHP	Normally open, balanced poppet, logic element - pressure adjustable	104
DOJP	Normally open, balanced poppet, logic element - pressure adjustable	105
LRBC	Normally closed, modulating element	106
LRDC	Normally closed, modulating element	107
LRFC	Normally closed, modulating element	108
LRHC	Normally closed, modulating element	109
LRJC	Normally closed, modulating element	110
LRBA	Normally closed, modulating element with pilot source from port 1	111
LRDA	Normally closed, modulating element with pilot source from port 1	112
LRFA	Normally closed, modulating element with pilot source from port 1	113
LRHA	Normally closed, modulating element with pilot source from port 1	114
LRJA	Normally closed, modulating element with pilot source from port 1	115
LRDS	Normally closed modulating element with shuttle	116
LPBC	Normally open, modulating element	117
LPDC	Normally open, modulating element	118
LPFC	Normally open, modulating element	119
LPFCL	Tuneable, normally open modulating element	120

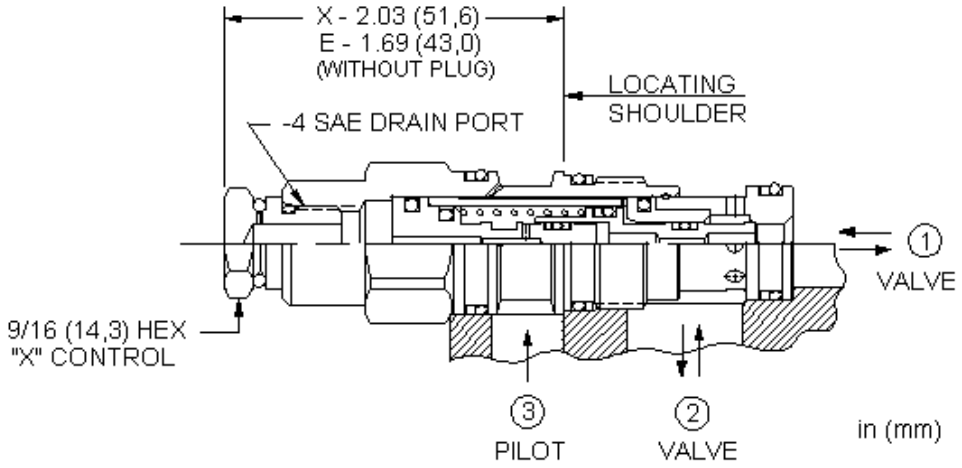
LPHC Normally open, modulating element 121
LPJC Normally open, modulating element 122
LPBA Normally open, modulating element with pilot source from port 1 123
LPDA Normally open, modulating element with pilot source from port 1 124
LPFA Normally open, modulating element with pilot source from port 1 125
LPHA Normally open, modulating element with pilot source from port 1 126
LPJA Normally open, modulating element with pilot source from port 1 127
LPJA8 Normally open, modulating element with integral T-8A control cavity and pilot source from port 1 128
LPDS Normally open modulating element with shuttle 129
LHDT Normally open, bi-directional, modulating element 130
LHFT Normally open, bi-directional, modulating element 131
LHHT Normally open, bi-directional, modulating element 132
LHDA Bypass/restrictive, priority modulating element 133
LHFA Bypass/restrictive, priority modulating element 134
LHHA Bypass/restrictive, priority modulating element 135
LHJA Bypass/restrictive, priority modulating element 136
RVBB Normally closed modulating element valve with relief function 137
RVCB Normally closed modulating element valve with relief function 138
RVEB Normally closed modulating element valve with relief function 139
RVGB Normally closed modulating element valve with relief function 140

RVIB	Normally closed modulating element valve with relief function	141
LRFCL	Tuneable, normally closed, modulating element	142

Cavity Information

Series	Ports	Cavities
Series Z Cartridges 3/8-24 UNF Cartridge Thread 5 mm Valve Hex Size 11 - 14 Nm Valve Installation Torque	2-Port	T-382A
Series P Cartridges M16 Cartridge Thread 22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port	T-8A T-8DP T-9A
Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port	T-162A T-162DP T-163A
Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 6-Port	T-10A T-13A T-11A T-21A T-31A T-61A
Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 4-Port (Dual path) 6-Port 6-Port	T-3A T-5A T-2A T-22A T-32A T-52AD T-52A T-62A
Series 3 Cartridges M36 Cartridge Thread 31,8 mm Valve Hex Size 203 - 217 Nm Valve Installation Torque	2-Port 3-Port 4-Port 4-Port 4-Port (Dual path) 6-Port 6-Port	T-16A T-17A T-23A T-33A T-53AD T-53A T-63A
Series 4 Cartridges M48 Cartridge Thread 41,3 mm Valve Hex Size 474 - 508 Nm Valve Installation Torque	2-Port 2-Port (Undercut) 3-Port 3-Port (Undercut) 4-Port 4-Port (Undercut) 4-Port 4-Port (Dual path) 6-Port 6-Port	T-18A T-18AU T-19A T-19AU T-24A T-24AU T-34A T-54AD T-54A T-64A





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

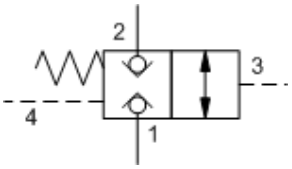
TECHNICAL DATA

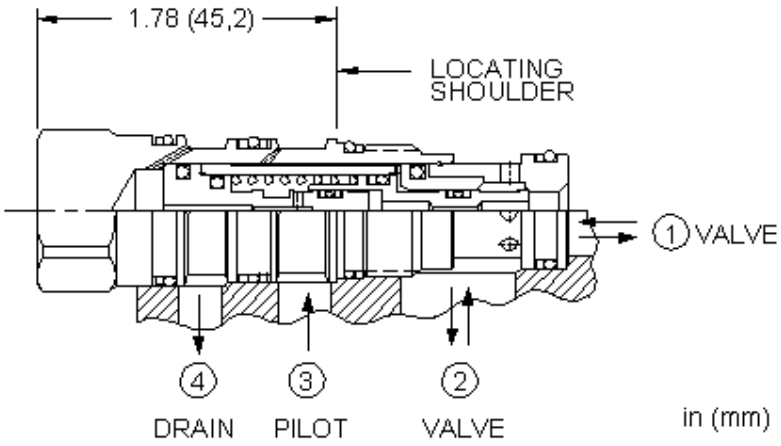
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Seal kit - Cartridge	Buna: 990311007
Seal kit - Cartridge	Viton: 990311006

CONFIGURATION OPTIONS

Model Code Example: DKDCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
E External 4-SAE Drain Port	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
X Standard Pilot, Atmospheric Vent		**E** EPDM	
		V Viton	





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

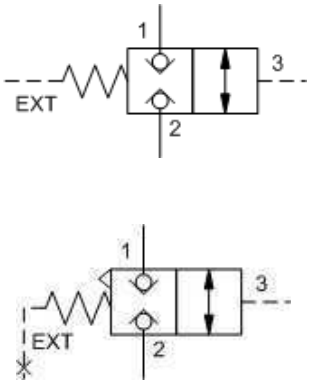
TECHNICAL DATA

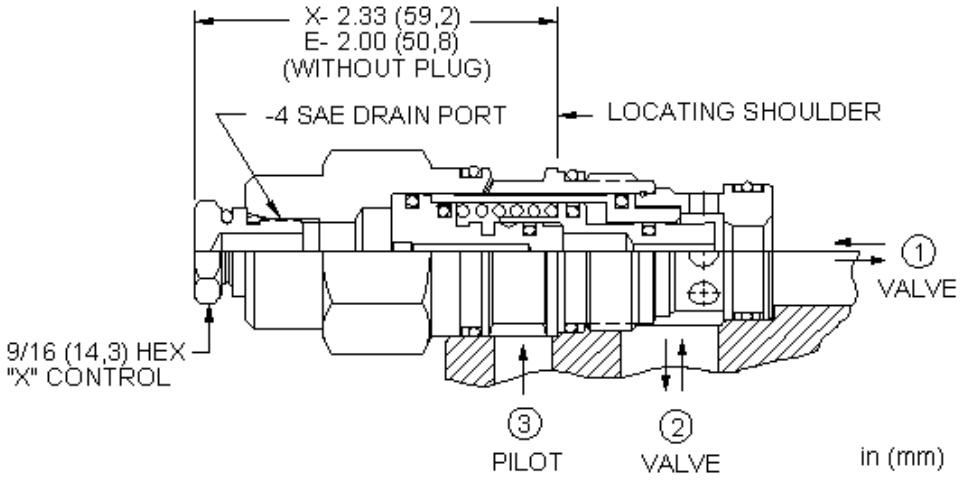
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Pilot Passage into Valve	0,8 mm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DKDSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

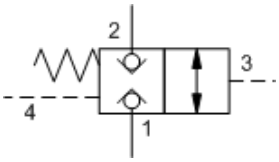
TECHNICAL DATA

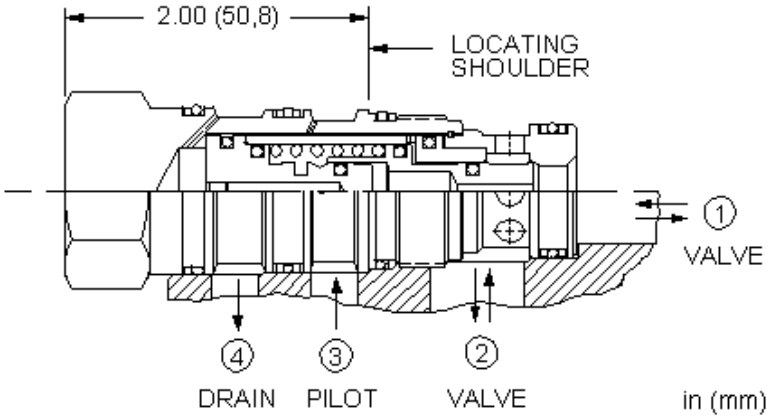
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,3 cc/min.@70 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: DKFCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**V** Viton





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

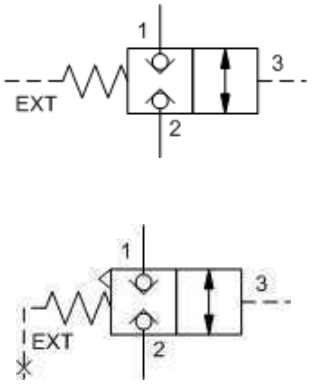
TECHNICAL DATA

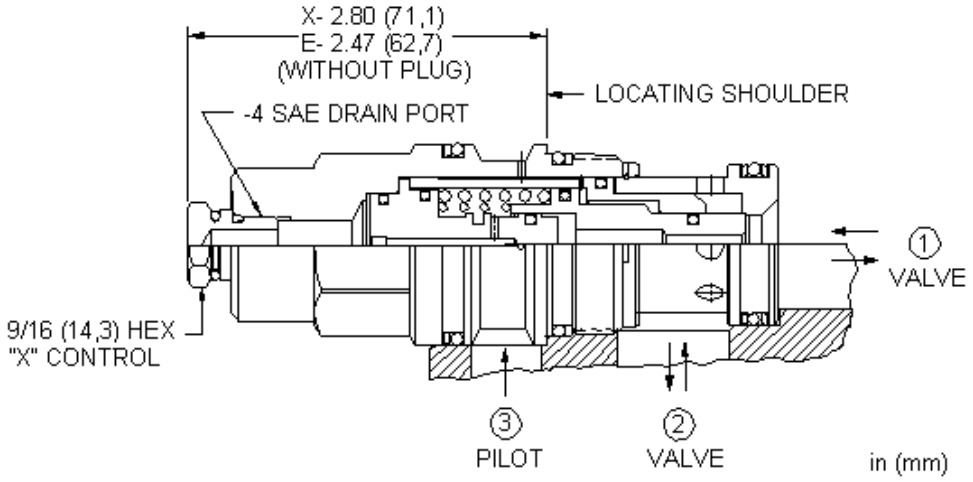
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	EPDM: 990022014
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DKFSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

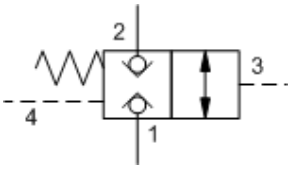
TECHNICAL DATA

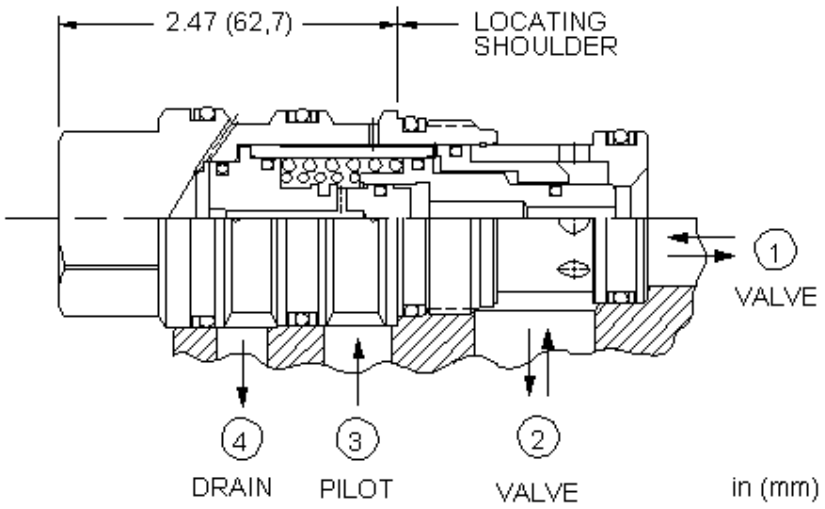
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: DKHCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**V** Viton





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

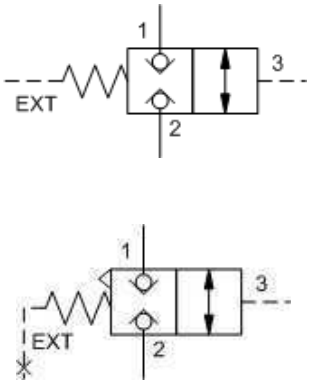
TECHNICAL DATA

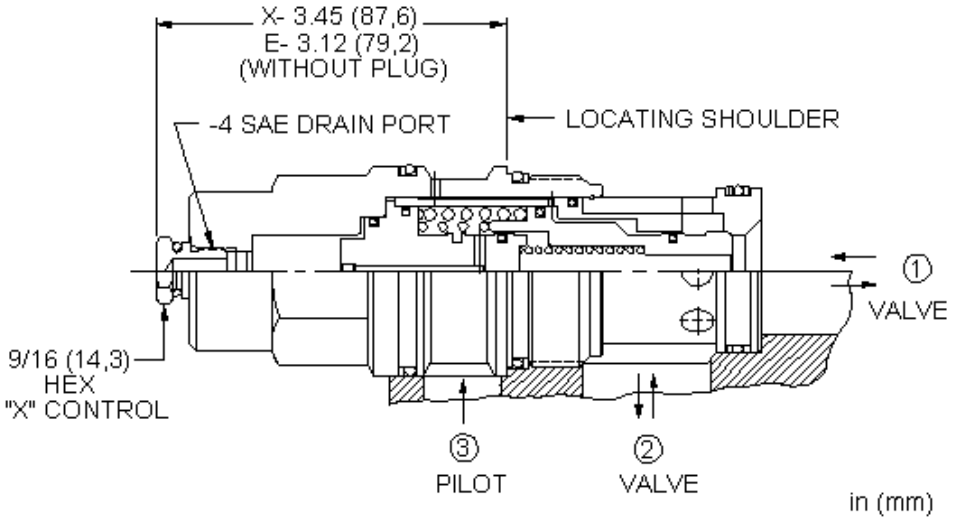
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DKHSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

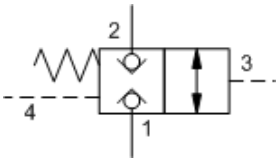
TECHNICAL DATA

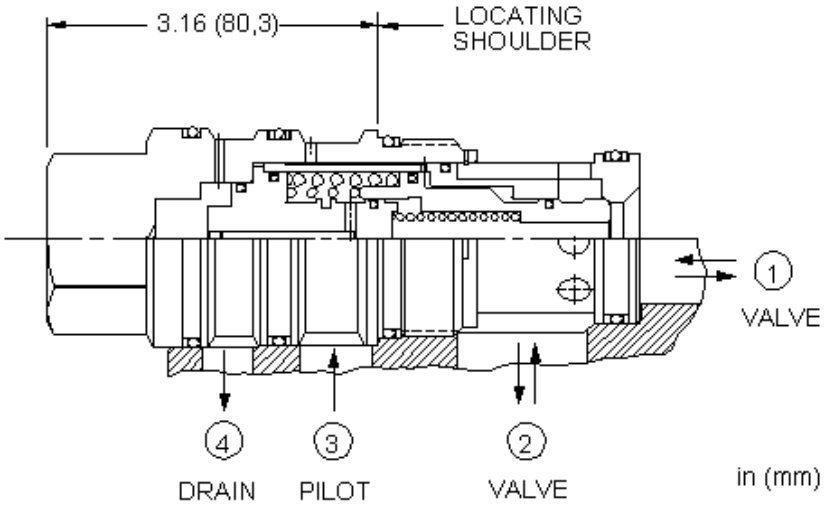
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: DKJCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**E** EPDM
		V Viton





This is a normally closed, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the open position.

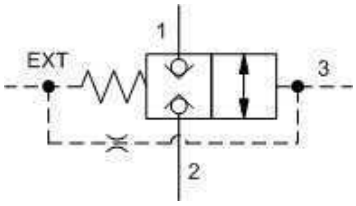
TECHNICAL DATA

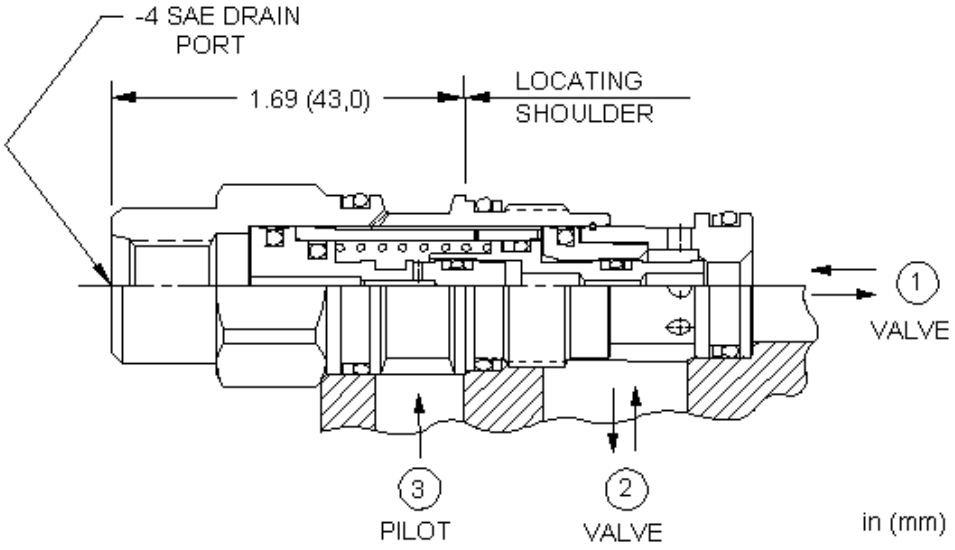
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	EPDM: 990024014
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: DKJSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally closed, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the closed position. Venting the external port shifts it to the open position, provided there is sufficient pressure at port 3.

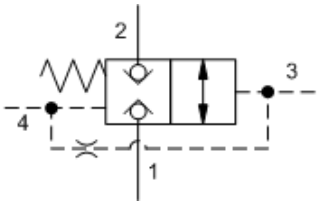
TECHNICAL DATA

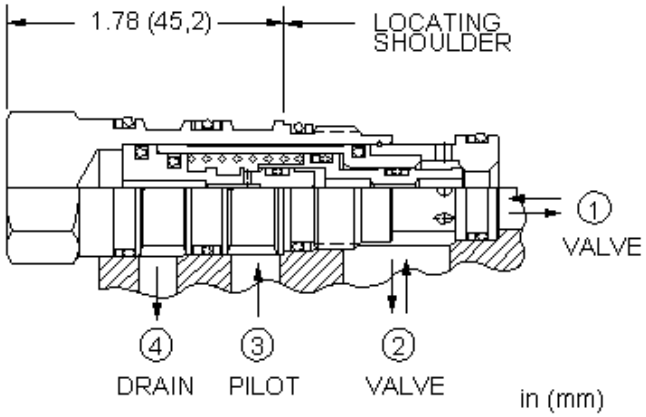
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Pilot Passage into Valve	0,8 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: DKDDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 400 psi (28 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the closed position. Venting port 4 shifts it to the open position, provided there is sufficient pressure at port 3.

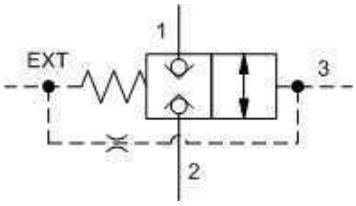
TECHNICAL DATA

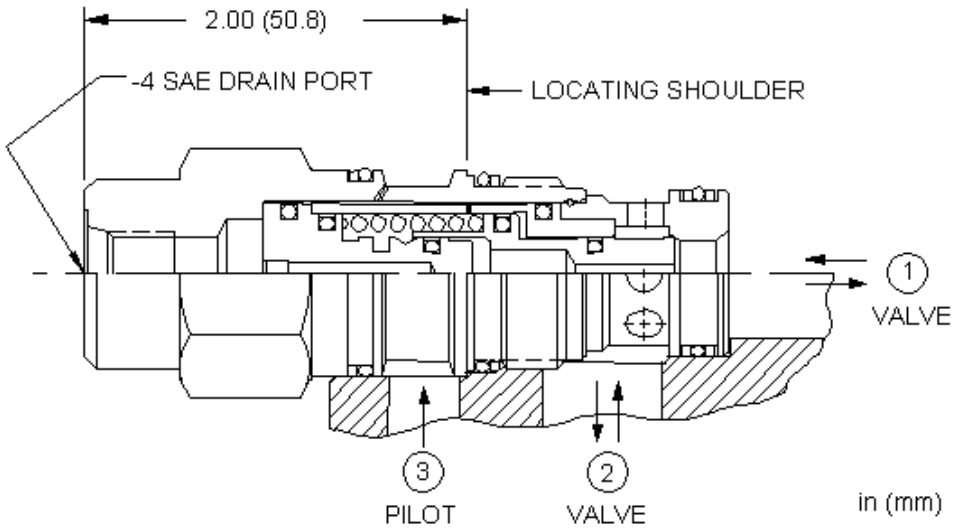
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DKDRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Vent to Operate	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated
			/LH Mild Steel, Zinc-Nickel





This is a normally closed, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the closed position. Venting the external port shifts it to the open position, provided there is sufficient pressure at port 3.

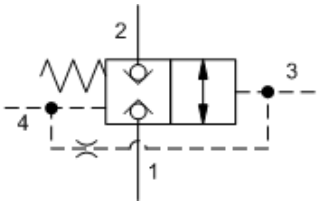
TECHNICAL DATA

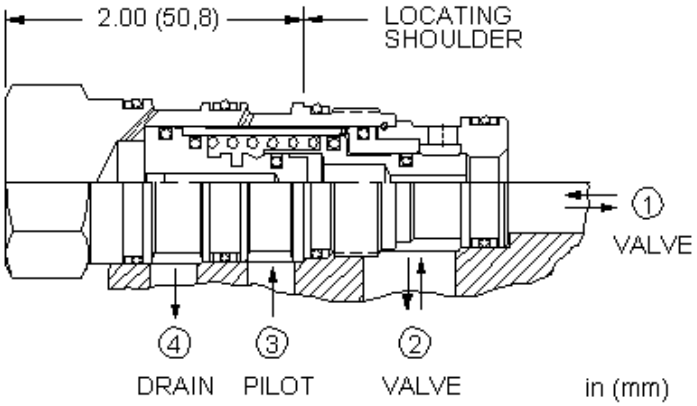
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: DKFDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the closed position. Venting port 4 shifts it to the open position, provided there is sufficient pressure at port 3.

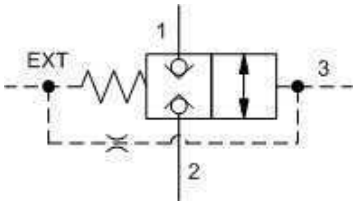
TECHNICAL DATA

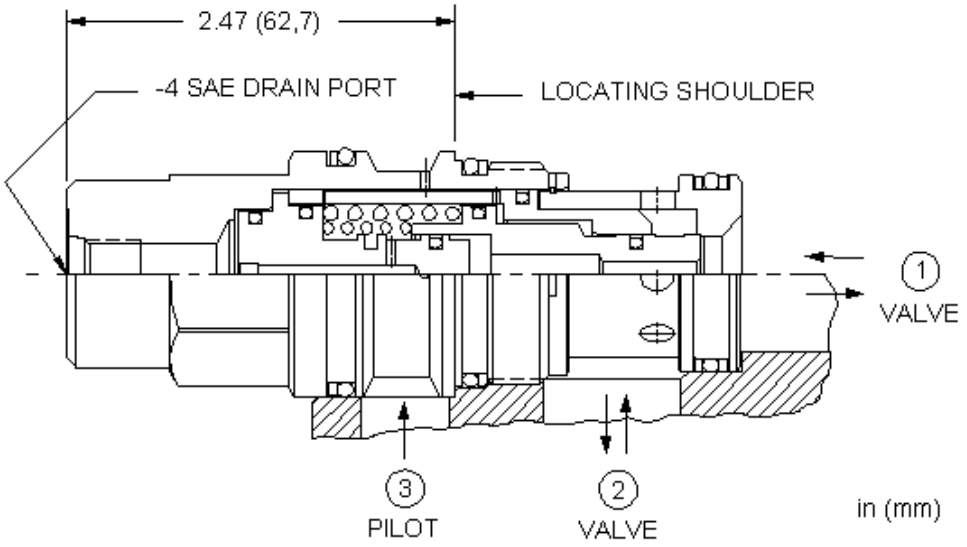
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DKFRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the closed position. Venting the external port shifts it to the open position, provided there is sufficient pressure at port 3.

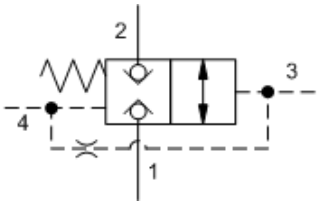
TECHNICAL DATA

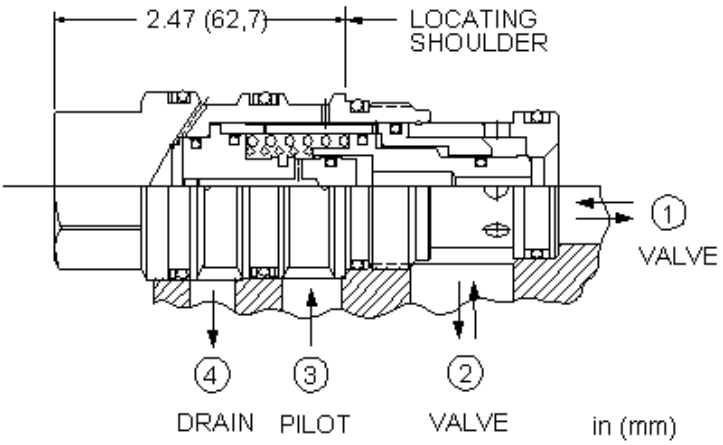
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: DKHDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the closed position. Venting port 4 shifts it to the open position, provided there is sufficient pressure at port 3.

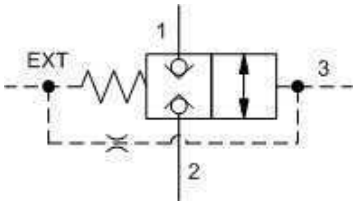
TECHNICAL DATA

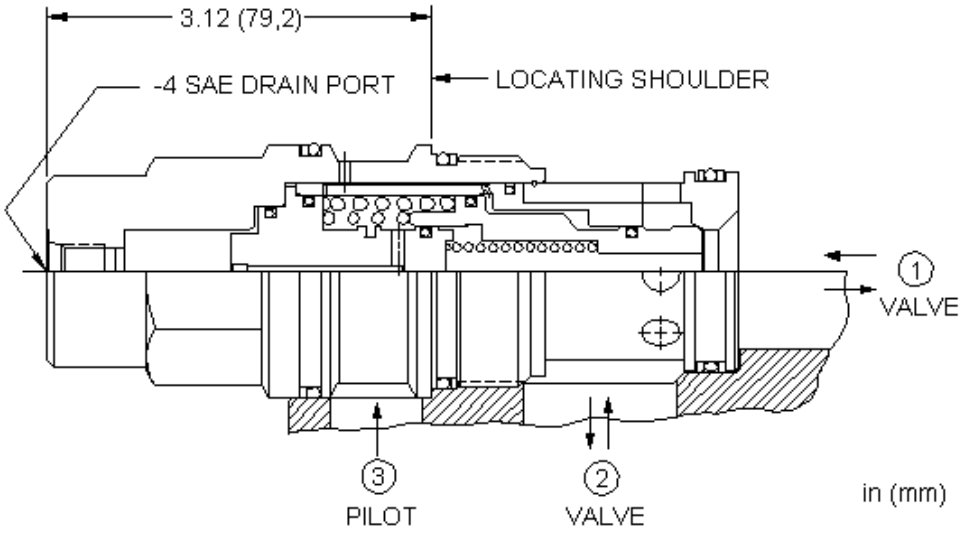
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DKHRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the closed position. Venting the external port shifts it to the open position, provided there is sufficient pressure at port 3.

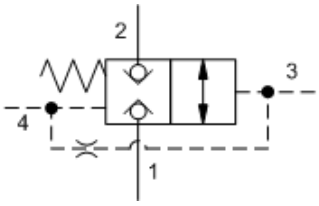
TECHNICAL DATA

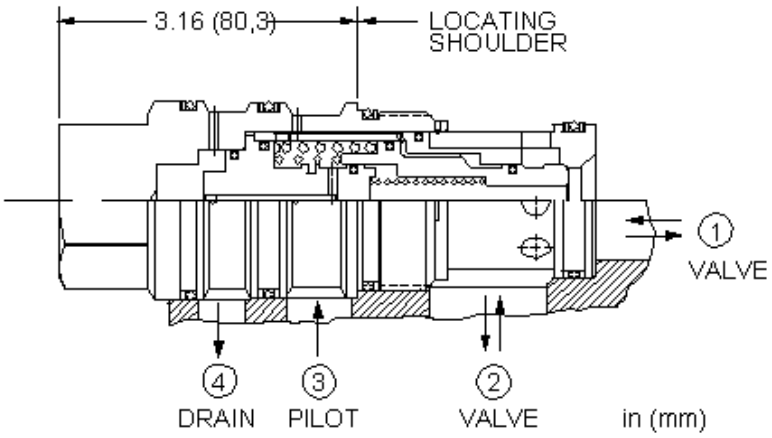
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: DKJDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally closed, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the closed position. Venting port 4 shifts it to the open position, provided there is sufficient pressure at port 3.

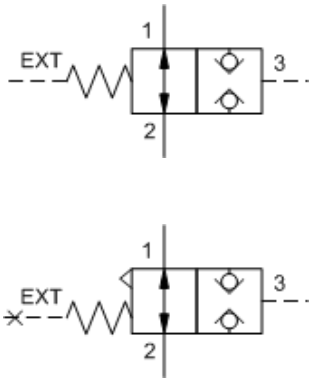
TECHNICAL DATA

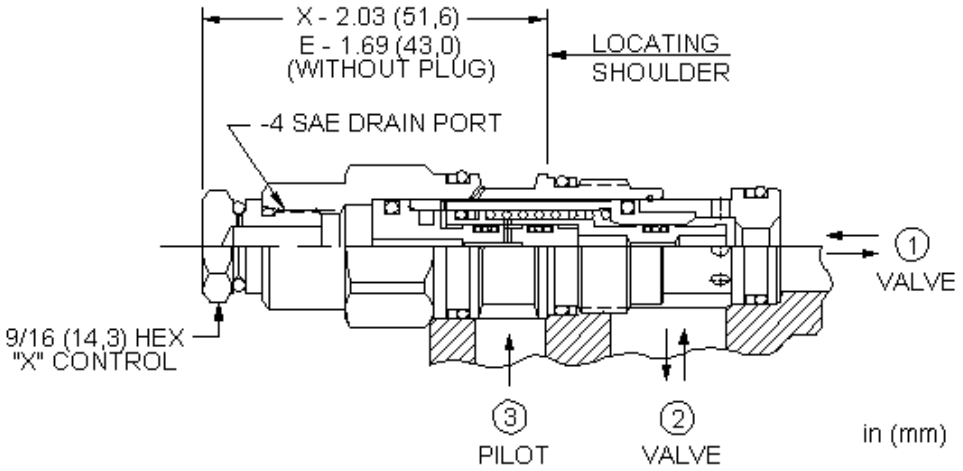
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: DKJRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

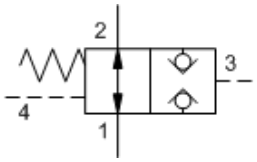
TECHNICAL DATA

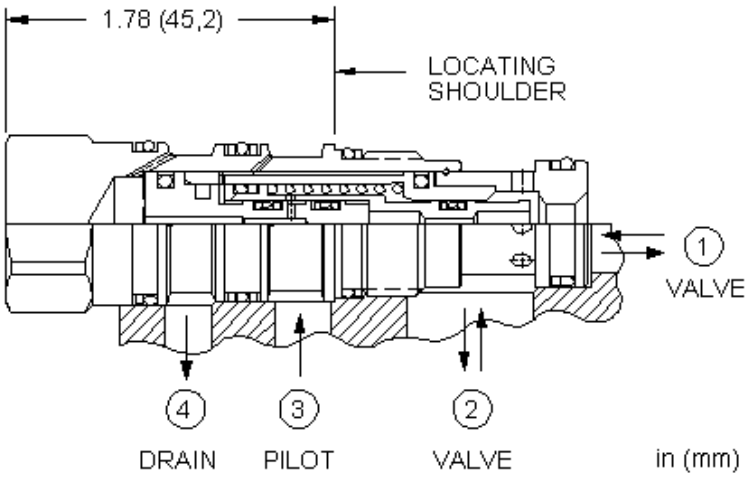
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Seal kit - Cartridge	Buna: 990311007
Seal kit - Cartridge	Viton: 990311006

CONFIGURATION OPTIONS

Model Code Example: DODCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
E External 4-SAE Drain Port	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
X Standard Pilot, Atmospheric Vent		**V** Viton	**/AP** Stainless Steel, Passivated





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

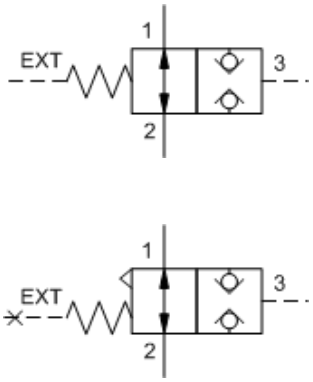
TECHNICAL DATA

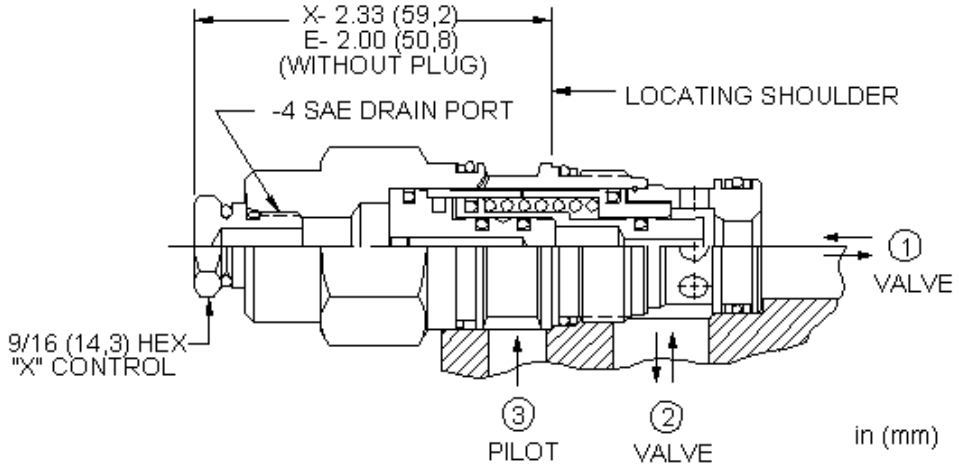
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Pilot Passage into Valve	0,8 mm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DODSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

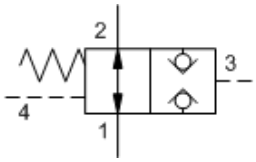
TECHNICAL DATA

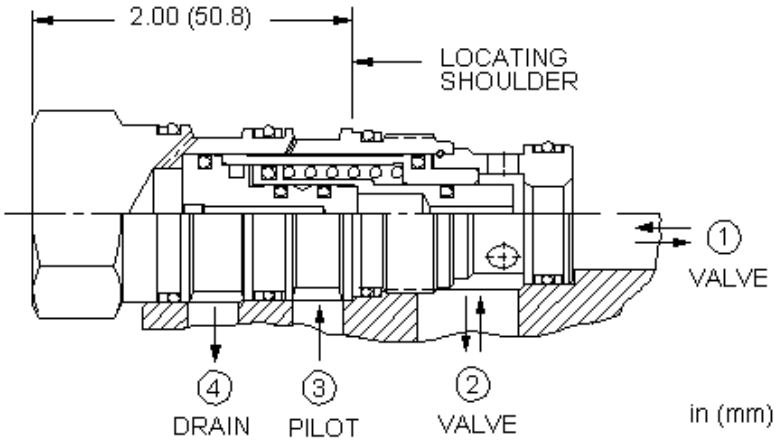
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: DOFCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**V** Viton





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

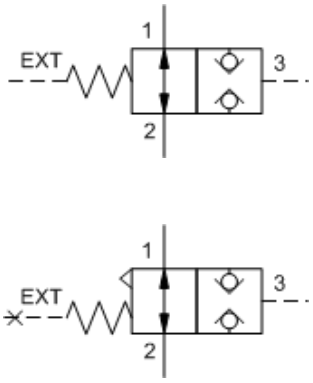
TECHNICAL DATA

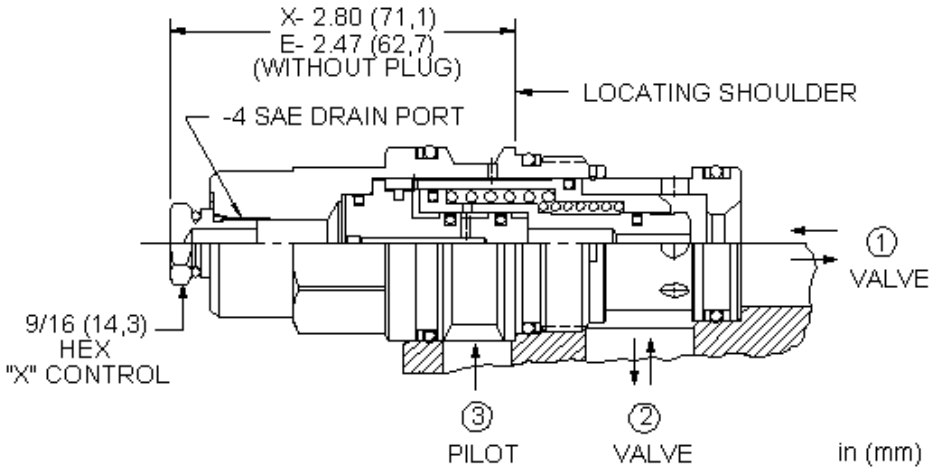
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	EPDM: 990022014
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DOFSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

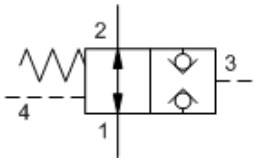
TECHNICAL DATA

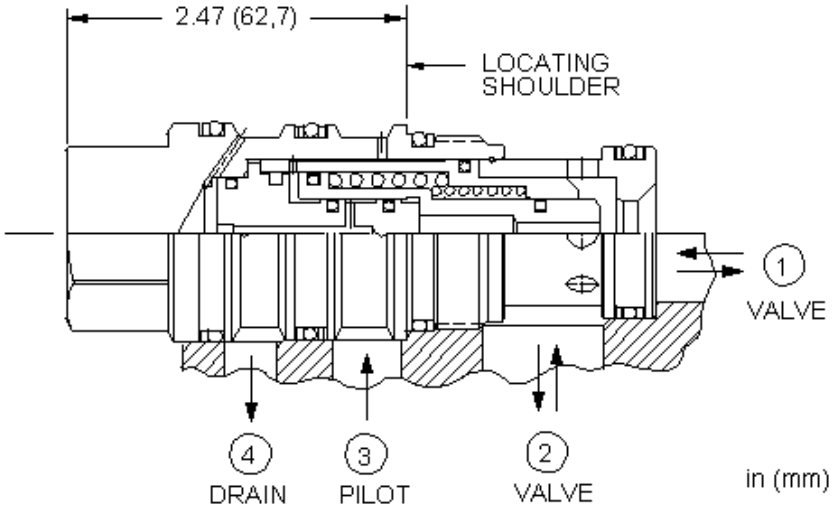
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: DOHCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**V** Viton





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

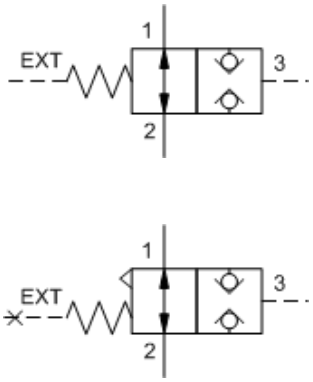
TECHNICAL DATA

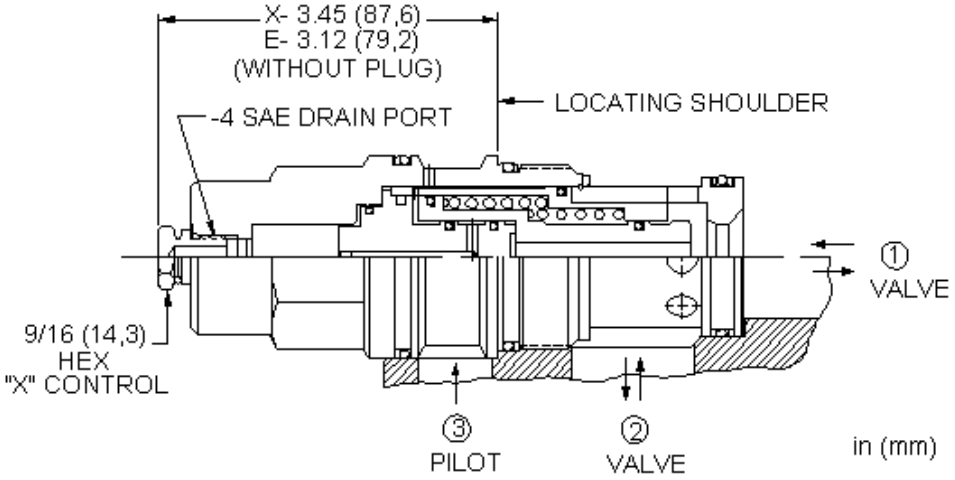
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DOHSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

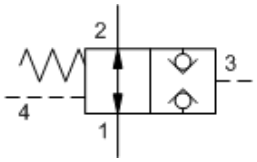
TECHNICAL DATA

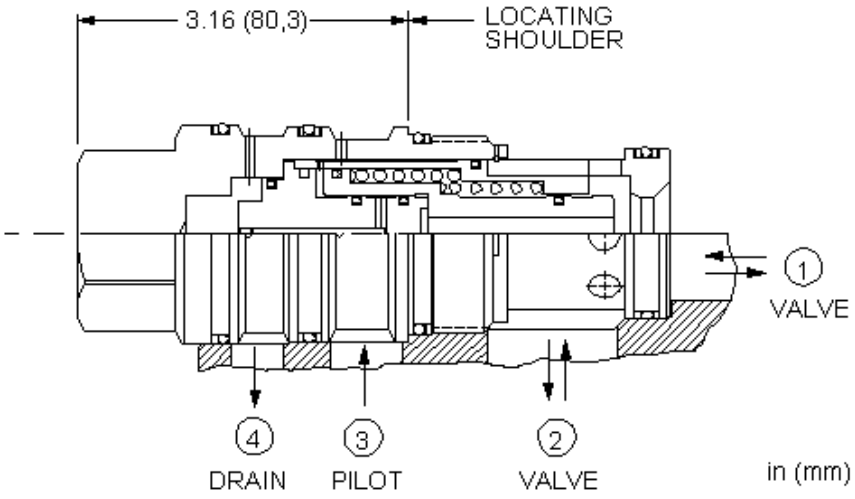
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: DOJCEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
X Standard Pilot, Atmospheric Vent		**V** Viton





This is a normally open, balanced poppet, switching element. Pilot pressure at port 3 shifts the valve to the closed position.

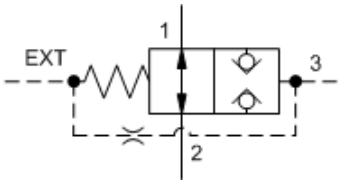
TECHNICAL DATA

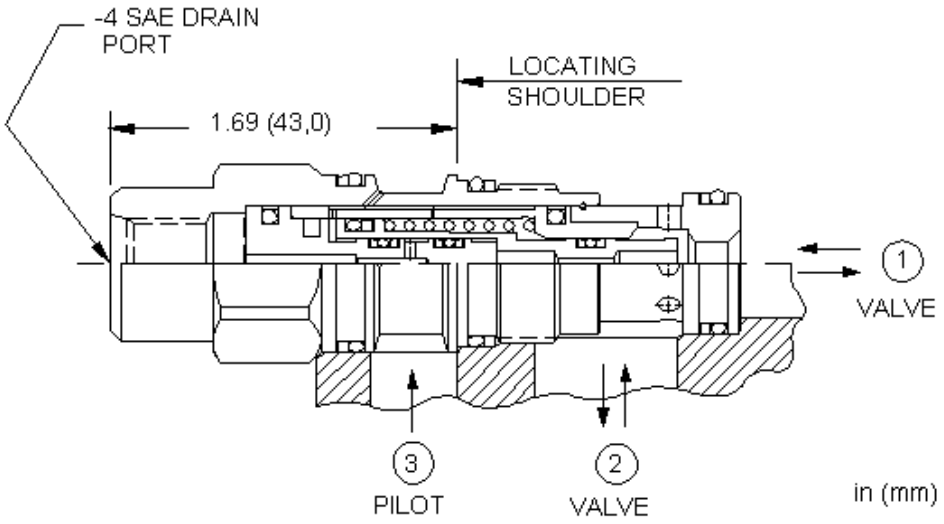
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	EPDM: 990024014
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: DOJSXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**H** 300 psi (20 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally open, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the open position. Venting the external port shifts it to the closed position, provided there is sufficient pressure at port 3.

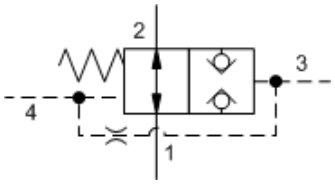
TECHNICAL DATA

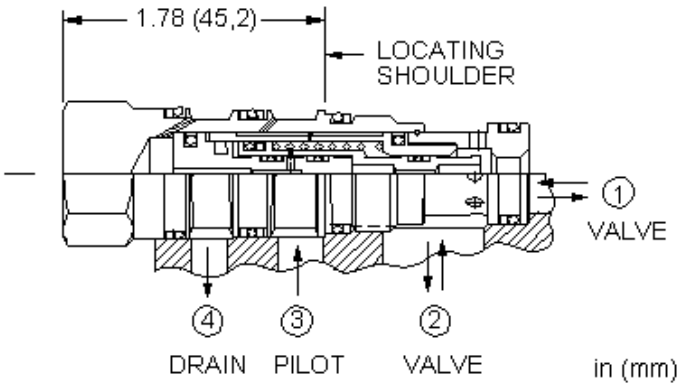
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,16 cc
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: DODDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 400 psi (28 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the open position. Venting port 4 shifts it to the closed position, provided there is sufficient pressure at port 3.

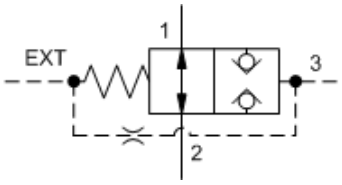
TECHNICAL DATA

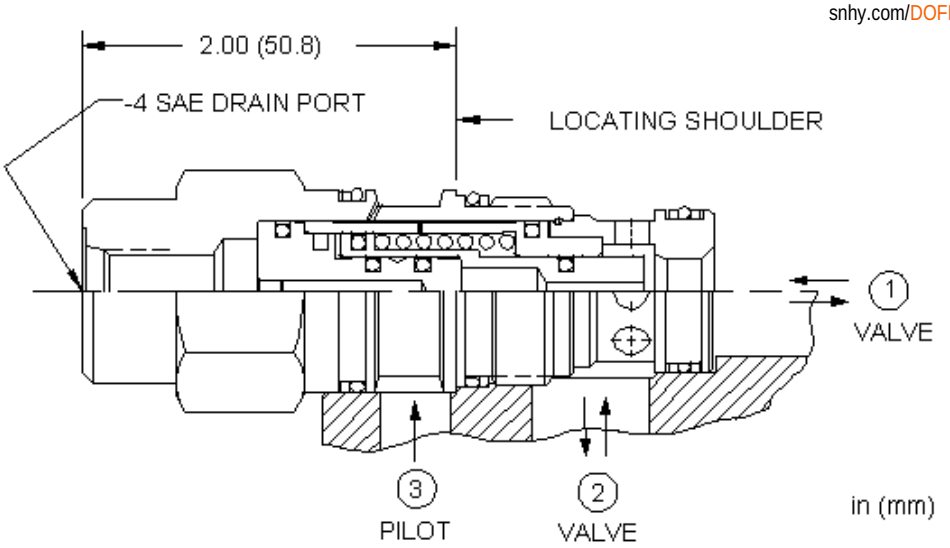
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DODRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Vent to Operate	**H** 400 psi (28 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/LH** Mild Steel, Zinc-Nickel





This is a normally open, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the open position. Venting the external port shifts it to the closed position, provided there is sufficient pressure at port 3.

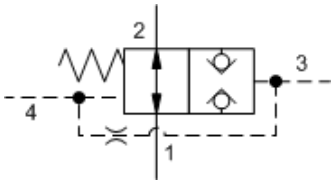
TECHNICAL DATA

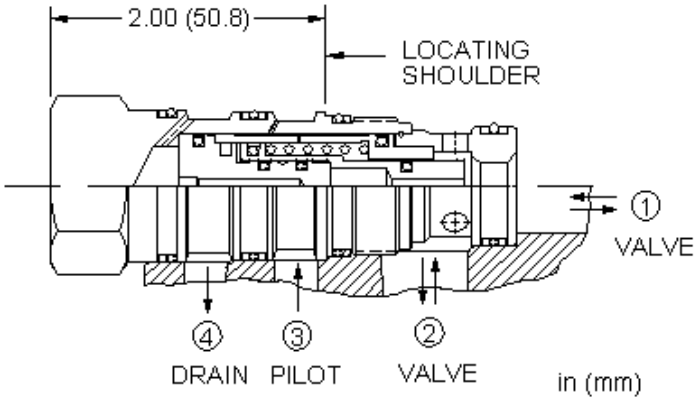
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,33 cc
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: DOFDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the open position. Venting port 4 shifts it to the closed position, provided there is sufficient pressure at port 3.

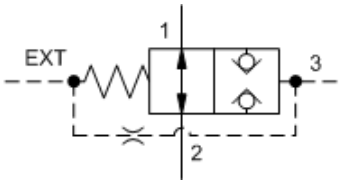
TECHNICAL DATA

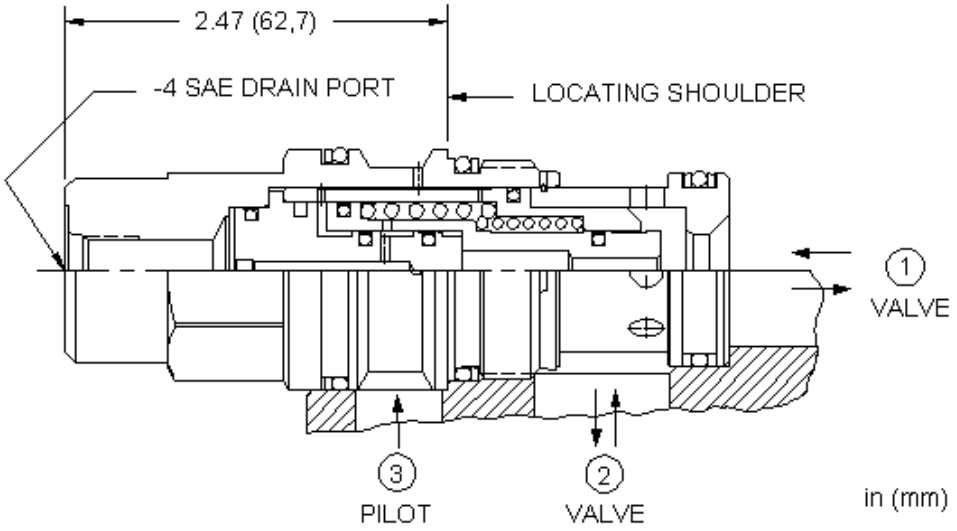
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DOFRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the open position. Venting the external port shifts it to the closed position, provided there is sufficient pressure at port 3.

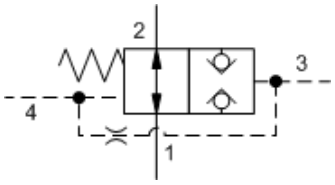
TECHNICAL DATA

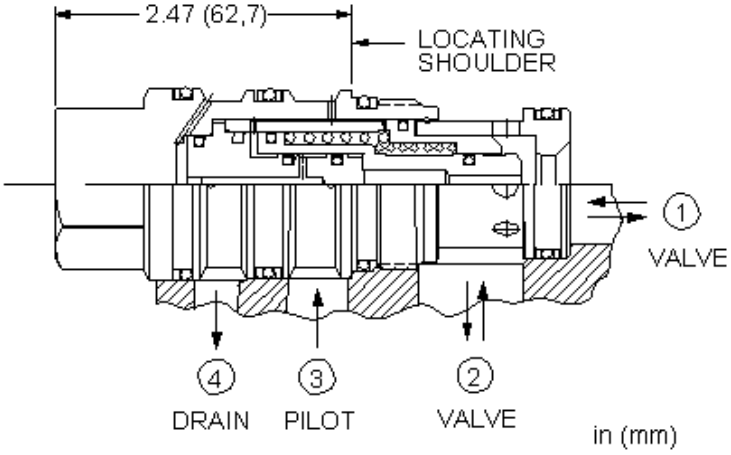
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: DOHDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the open position. Venting port 4 shifts it to the closed position, provided there is sufficient pressure at port 3.

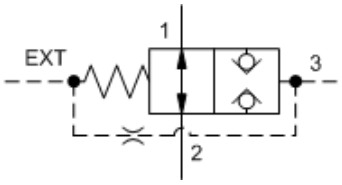
TECHNICAL DATA

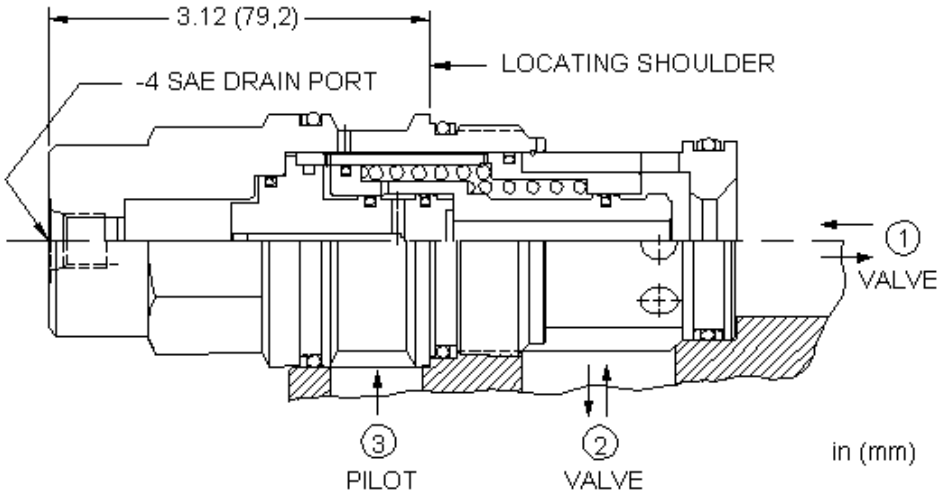
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DOHRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the external vent port is blocked, the poppet remains in the open position. Venting the external port shifts it to the closed position, provided there is sufficient pressure at port 3.

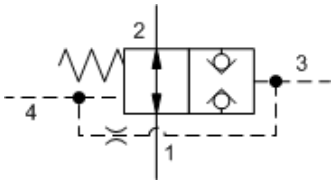
TECHNICAL DATA

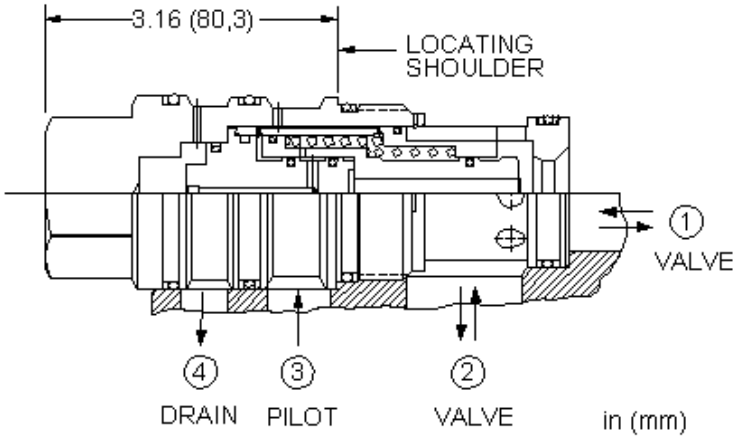
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Volume Displacement	2,8 cc
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: DOJDEHN

CONTROL (E)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
E External 4-SAE Drain Port	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton





This is a normally open, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the open position. Venting port 4 shifts it to the closed position, provided there is sufficient pressure at port 3.

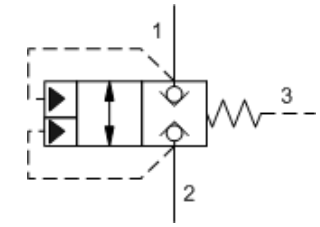
TECHNICAL DATA

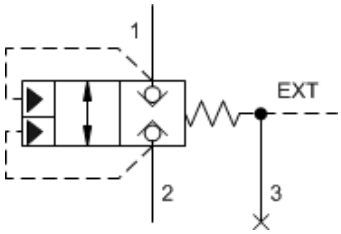
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

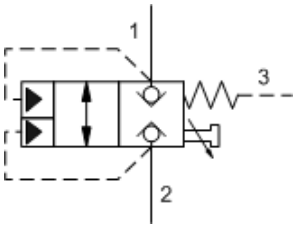
CONFIGURATION OPTIONS

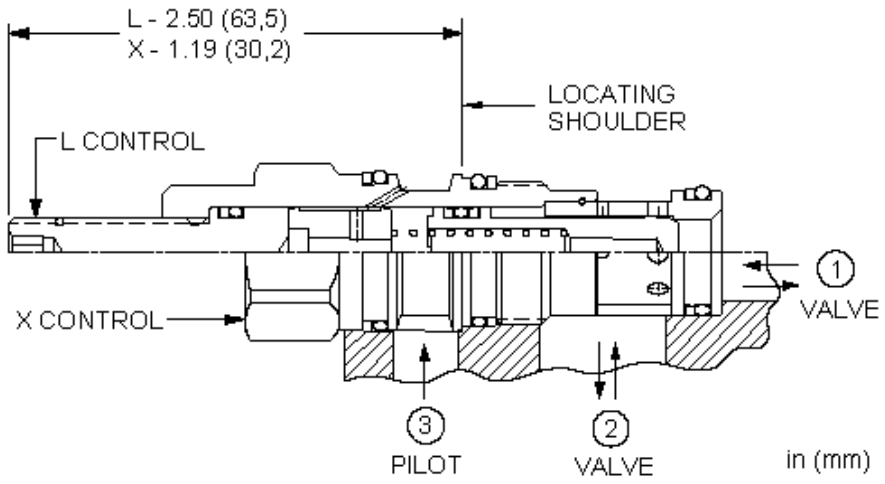
Model Code Example: DOJRXHN

CONTROL (X)	MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
X Vent to Operate	**H** 300 psi (20 bar)	**N** Buna-N
		V Viton









These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

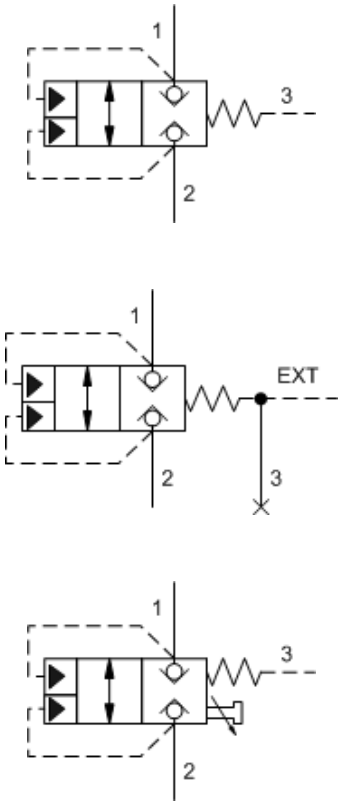
TECHNICAL DATA

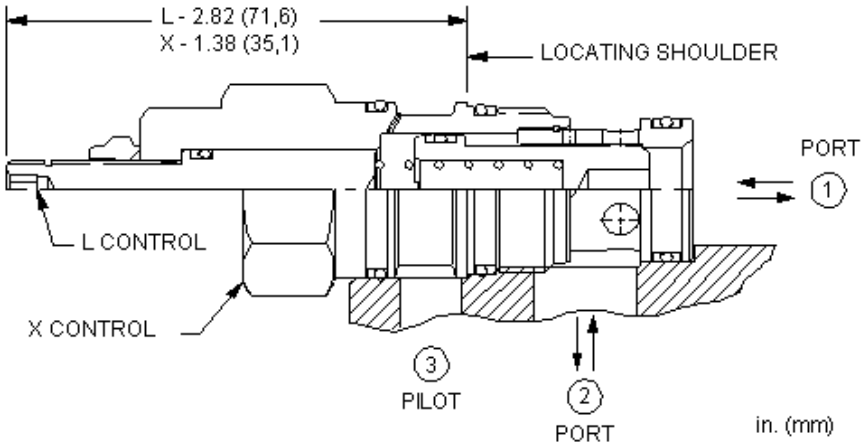
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	0,66 cc
Pilot Passage into Valve	0,8 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LODCXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated
			/LH Mild Steel, Zinc-Nickel





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

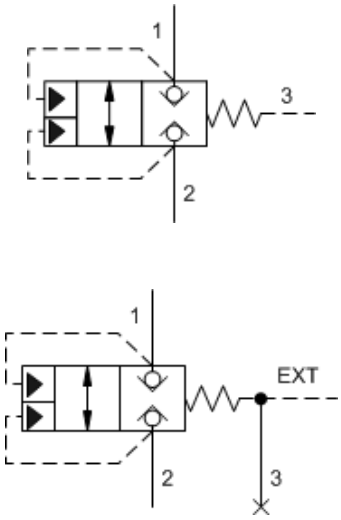
TECHNICAL DATA

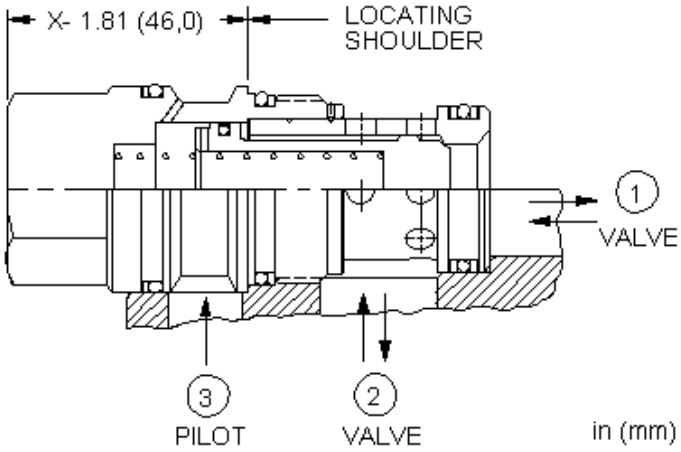
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	1,1 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOFCXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

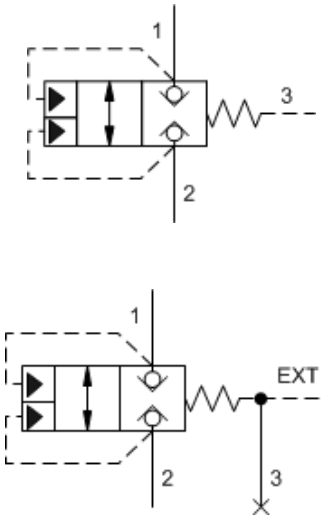
TECHNICAL DATA

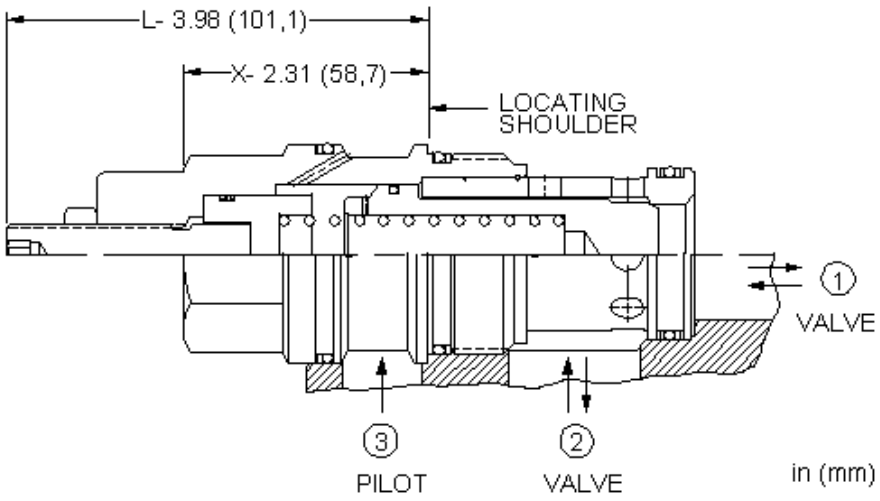
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	4,1 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHCXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

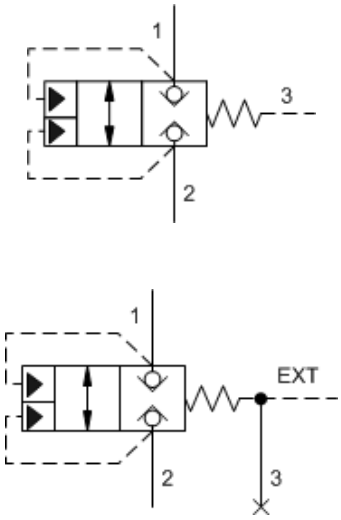
TECHNICAL DATA

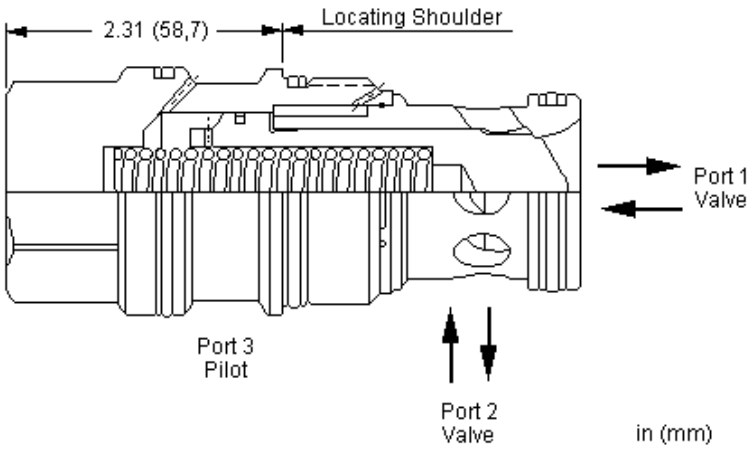
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	6,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJCXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	7,7 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

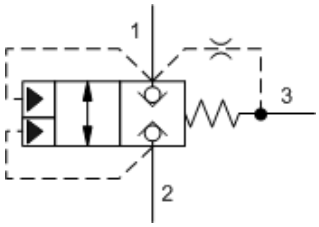
Model Code Example: LOKCXDN

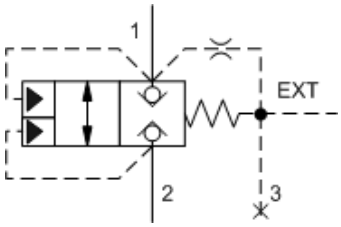
CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel

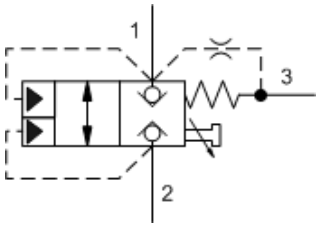
Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1

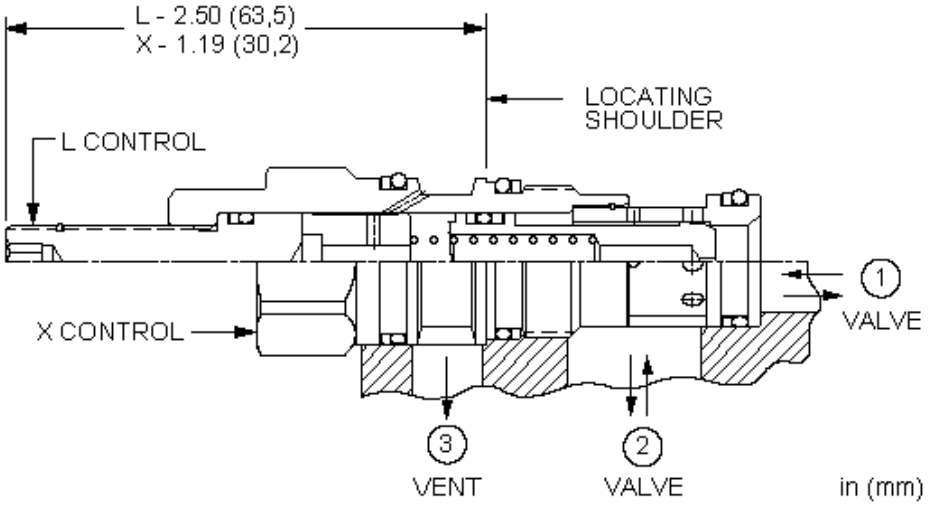
SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-11A

snhy.com/LODA









These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 1 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 1 to 2 direction and will function as a check valve from 2 to 1. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

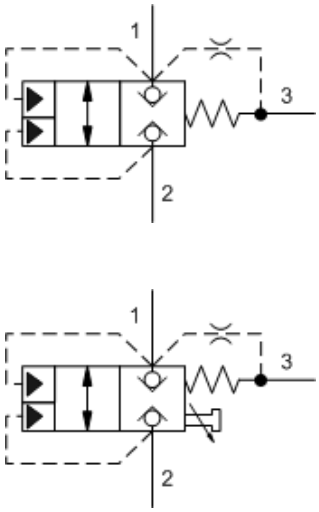
Model Code Example: LODAXDN

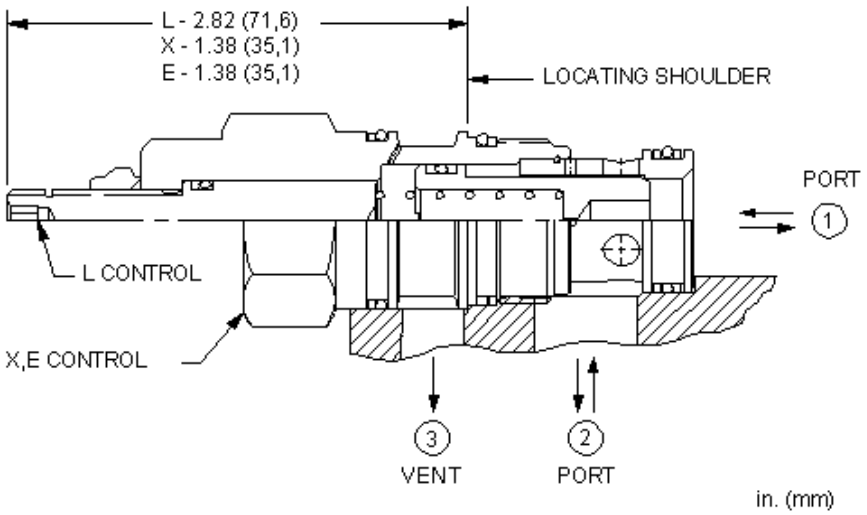
CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1

SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-2A

snhy.com/LOFA





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 1 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 1 to 2 direction and will function as a check valve from 2 to 1. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

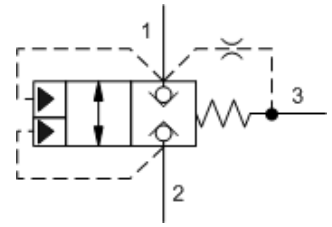
TECHNICAL DATA

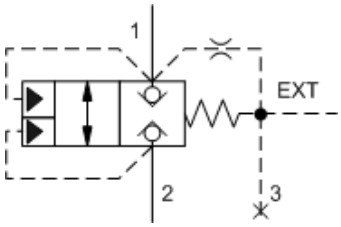
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

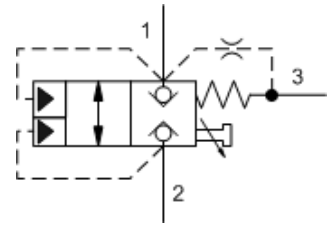
CONFIGURATION OPTIONS

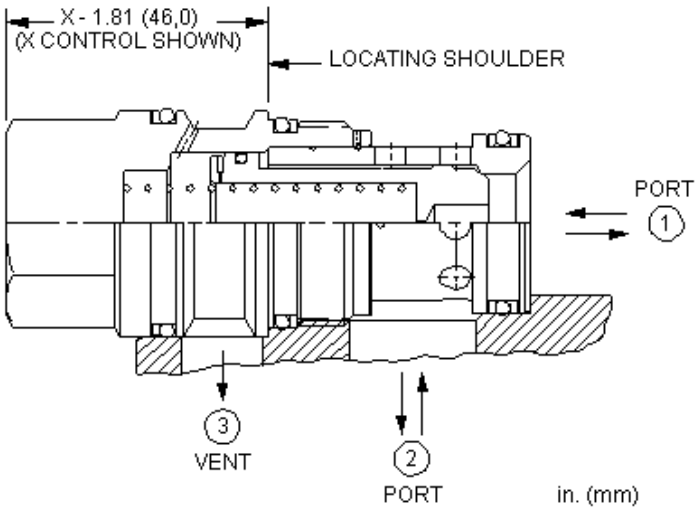
Model Code Example: LOFAXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated









These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 1 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 1 to 2 direction and will function as a check valve from 2 to 1. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

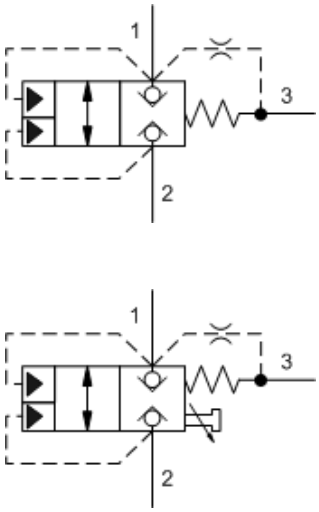
TECHNICAL DATA

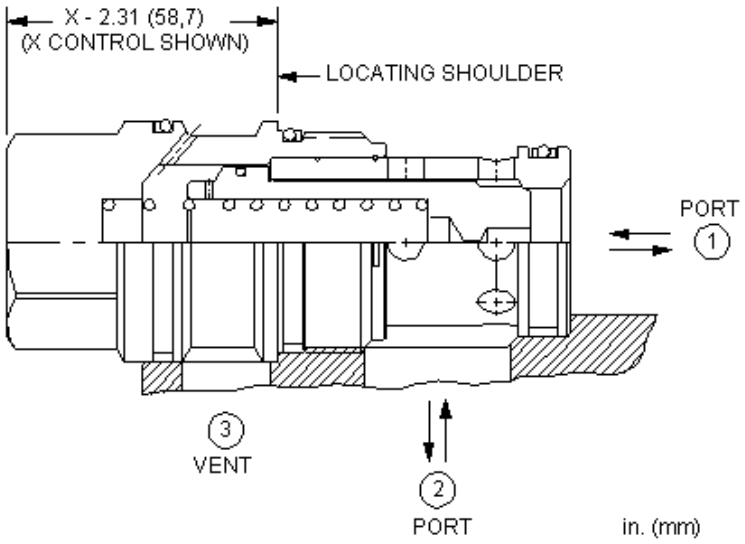
Maximum Operating Pressure	350 bar
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHAXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 1 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 1 to 2 direction and will function as a check valve from 2 to 1. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

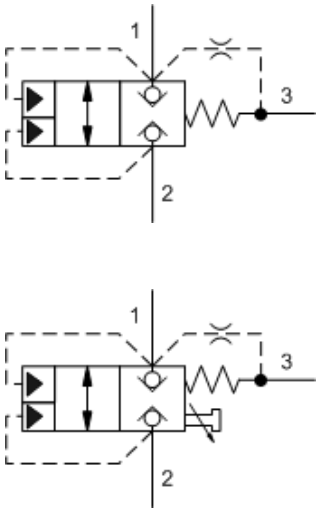
TECHNICAL DATA

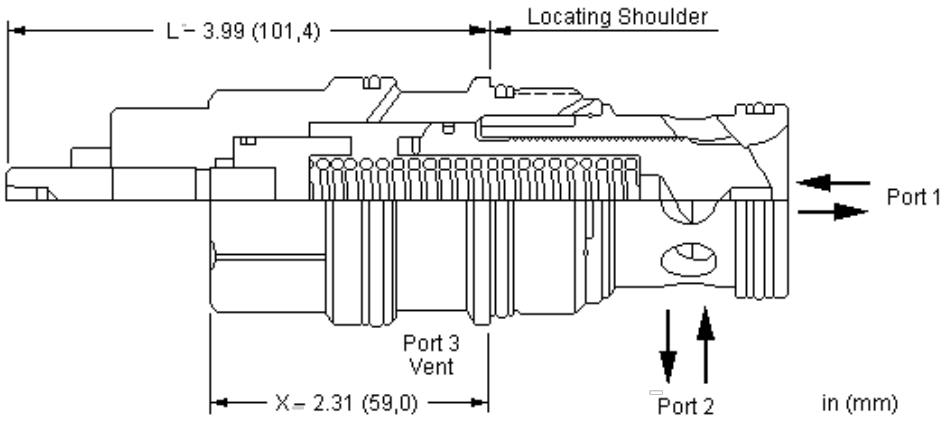
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJAXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
L Stroke Adjustment		**V** Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 1 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 1 to 2 direction and will function as a check valve from 2 to 1. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

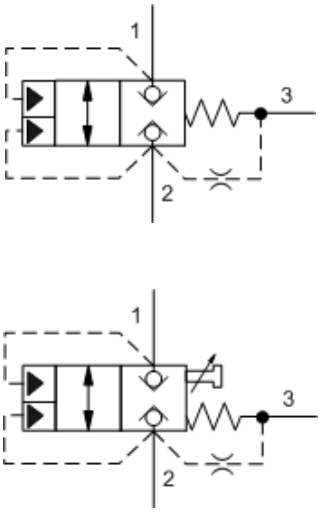
TECHNICAL DATA

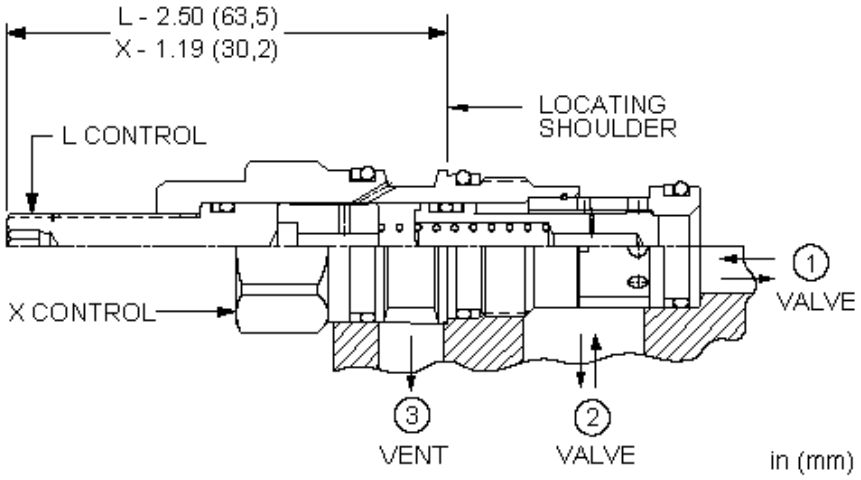
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOKAXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
L Stroke Adjustment		**V** Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 2 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 2 to 1 direction and will function as a check valve from 1 to 2. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

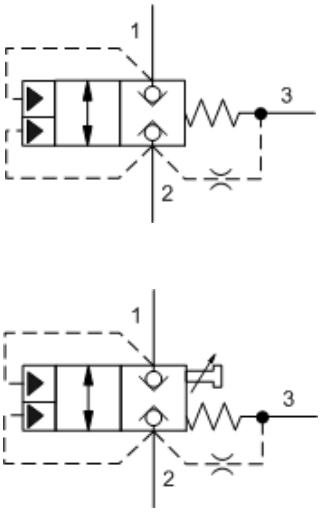
TECHNICAL DATA

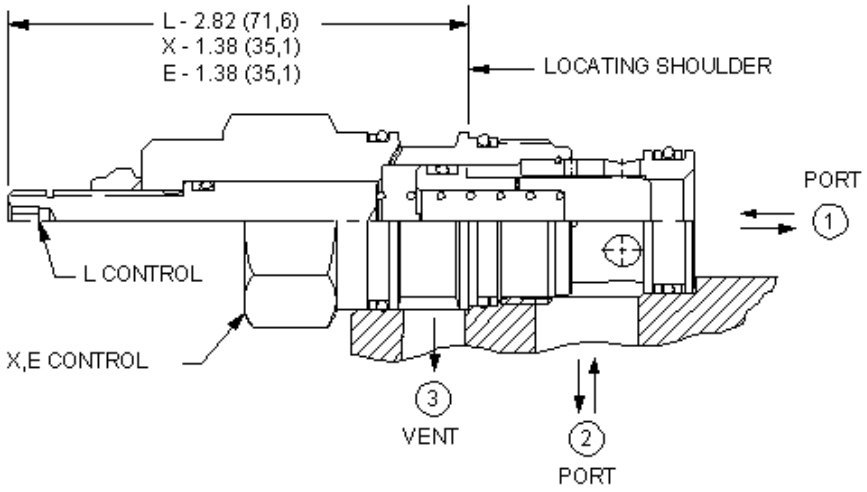
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LODBXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 2 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 2 to 1 direction and will function as a check valve from 1 to 2. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

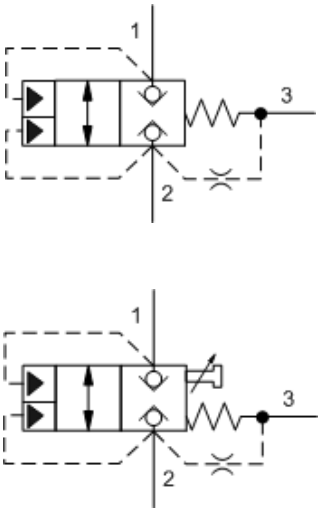
TECHNICAL DATA

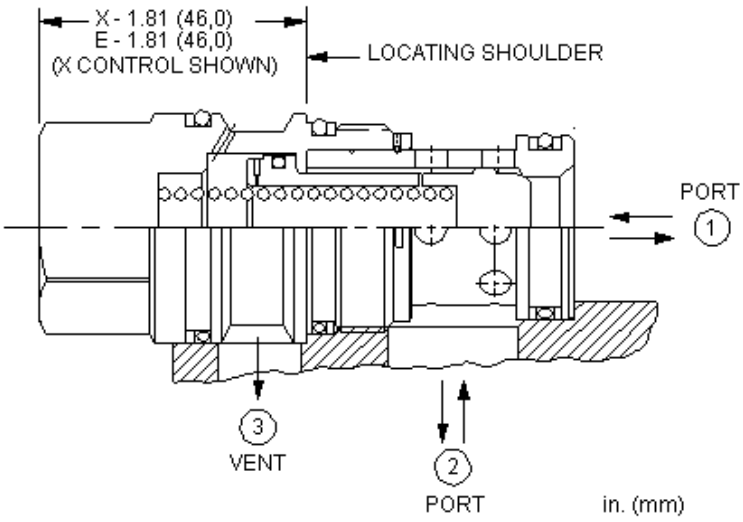
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOFBXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 2 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 2 to 1 direction and will function as a check valve from 1 to 2. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

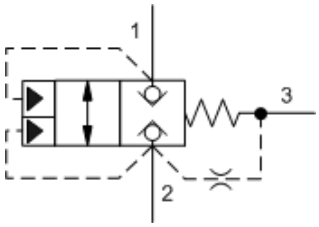
TECHNICAL DATA

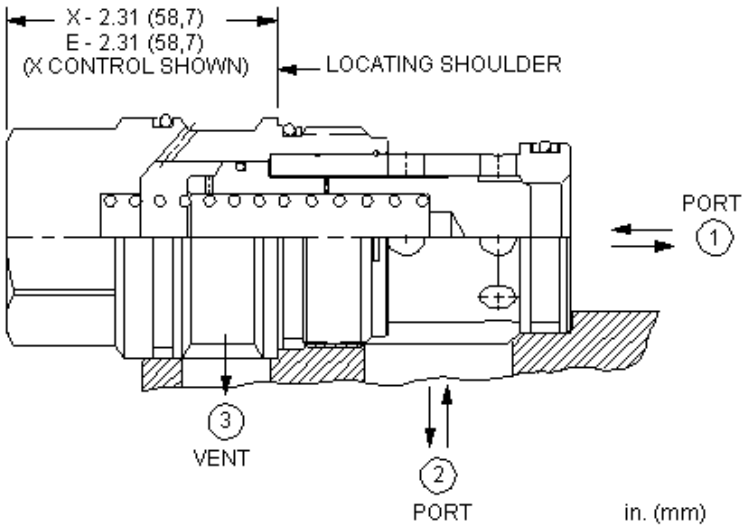
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHBXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 2 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 2 to 1 direction and will function as a check valve from 1 to 2. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

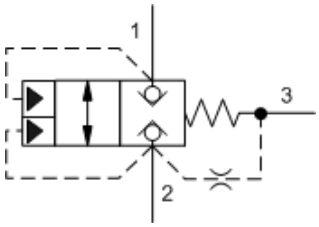
TECHNICAL DATA

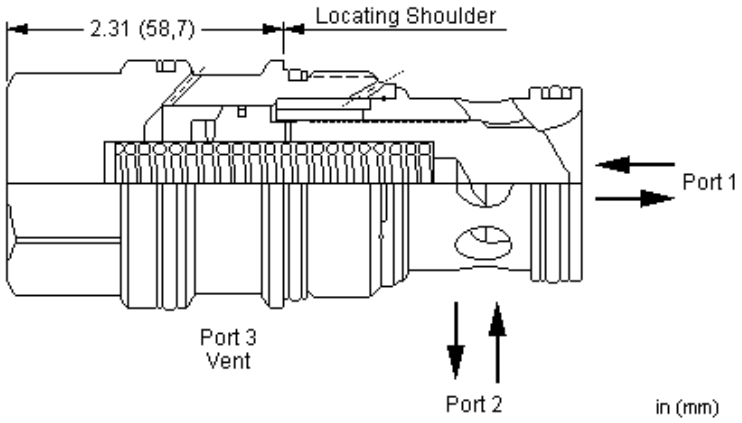
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJBXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and have port 2 as a pilot source. With port 3 blocked, the valve will remain in the closed position in the 2 to 1 direction and will function as a check valve from 1 to 2. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

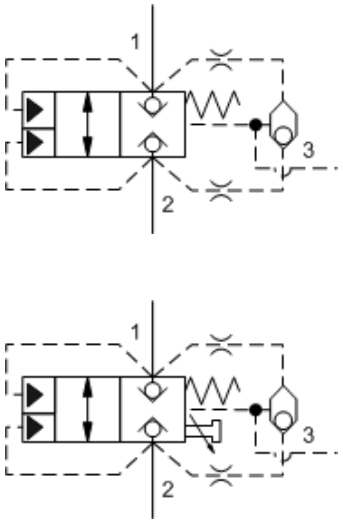
Model Code Example: LOKBXDN

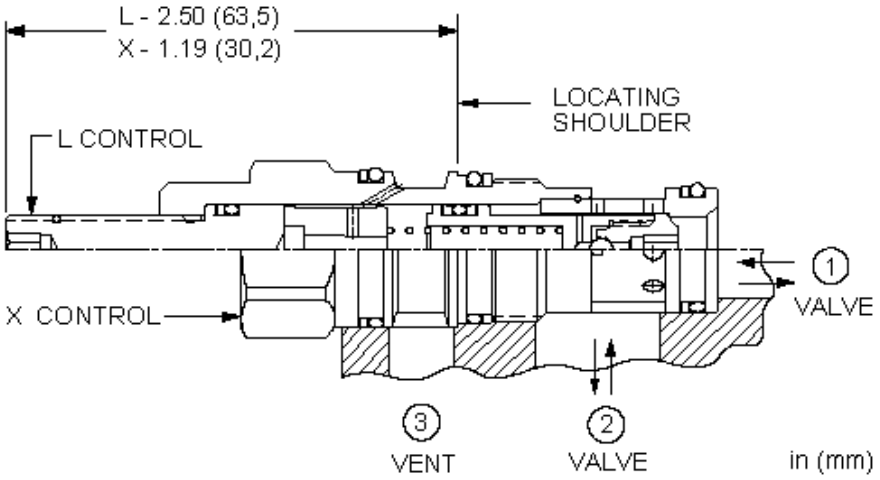
CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2

SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-11A

snhy.com/LODD





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and incorporate an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With port 3 blocked, the valve is held in the closed position by the spring force. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

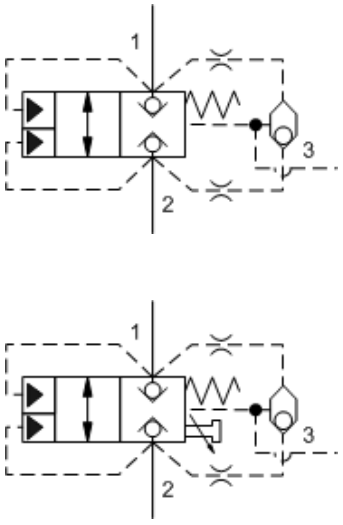
Model Code Example: LODDXDN

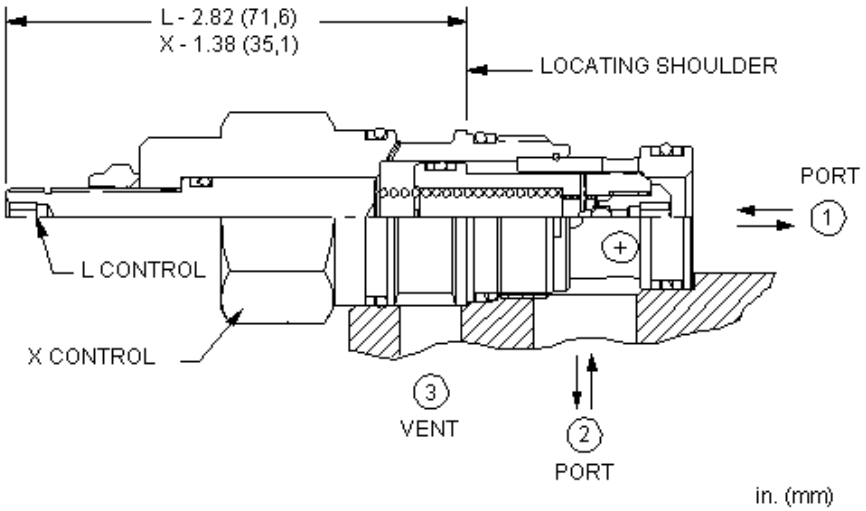
CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2

SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-2A

snhy.com/LOFD





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and incorporate an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With port 3 blocked, the valve is held in the closed position by the spring force. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

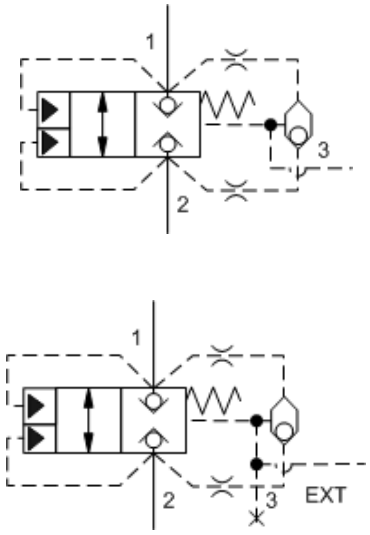
TECHNICAL DATA

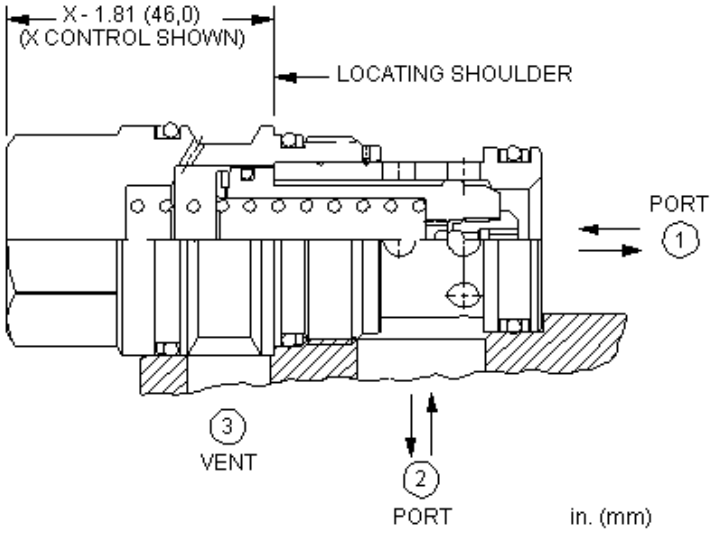
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOFDXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and incorporate an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With port 3 blocked, the valve is held in the closed position by the spring force. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

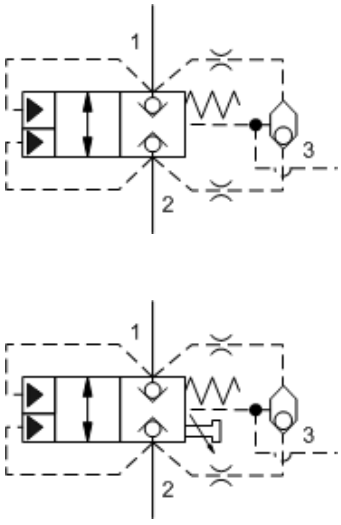
TECHNICAL DATA

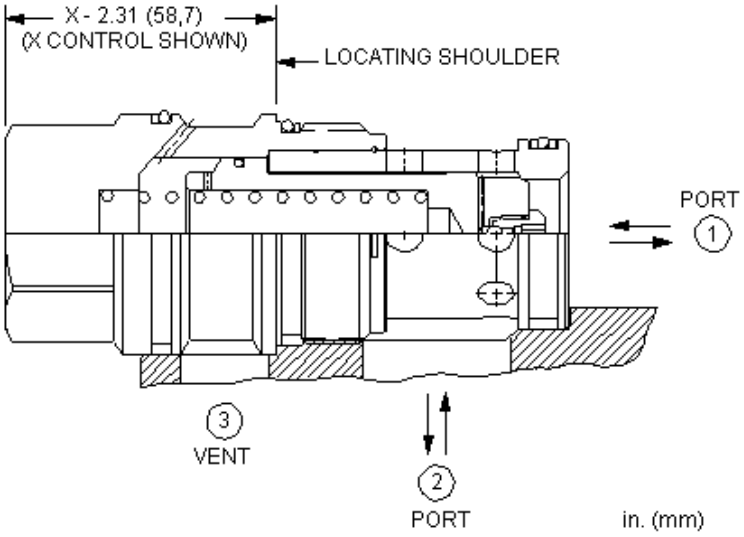
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHDXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and incorporate an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With port 3 blocked, the valve is held in the closed position by the spring force. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

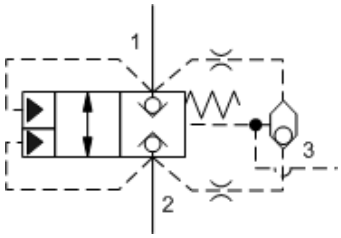
TECHNICAL DATA

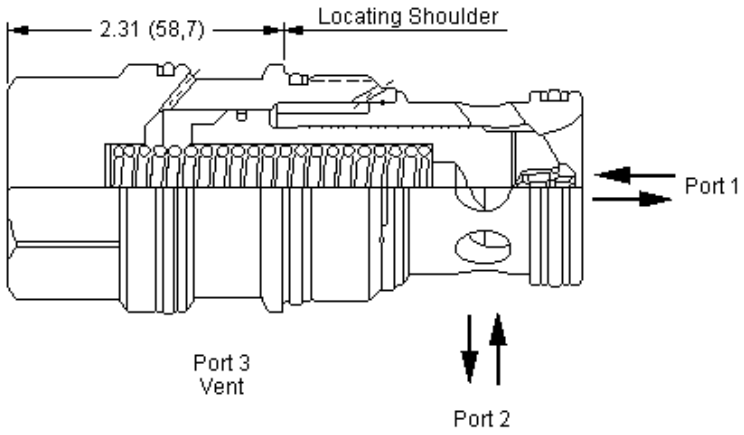
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJDXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
L Stroke Adjustment		**V** Viton	**/AP** Stainless Steel, Passivated





in (mm)

These unbalanced, vent-to-open logic valves are 2-way switching elements that are spring-biased closed and incorporate an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With port 3 blocked, the valve is held in the closed position by the spring force. With port 3 vented, the valve will open provided there is sufficient pressure to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

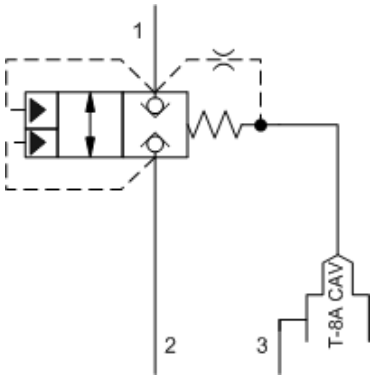
TECHNICAL DATA

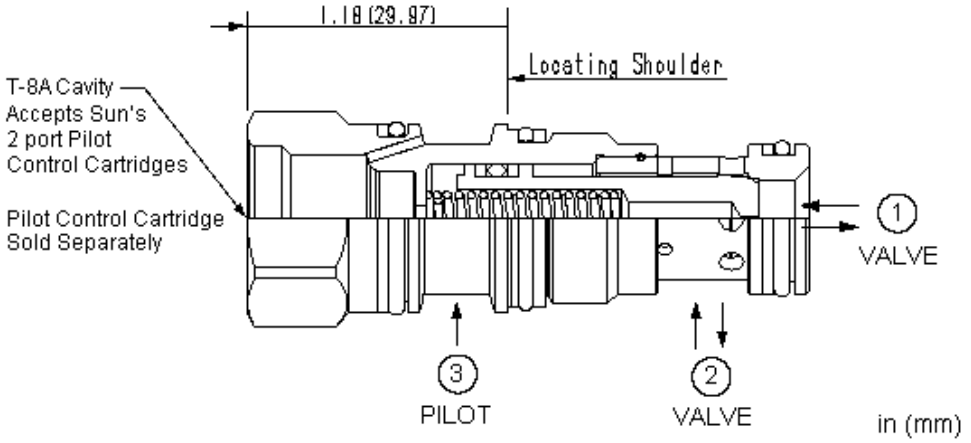
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOKDXDN

CONTROL (X)	CRACKING PRESSURE (D)	SEAL MATERIAL (N)
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N
		V Viton





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 1 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

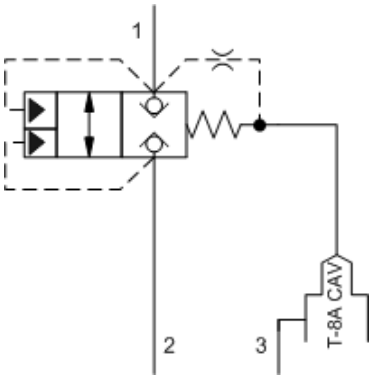
Model Code Example: LODA8DN

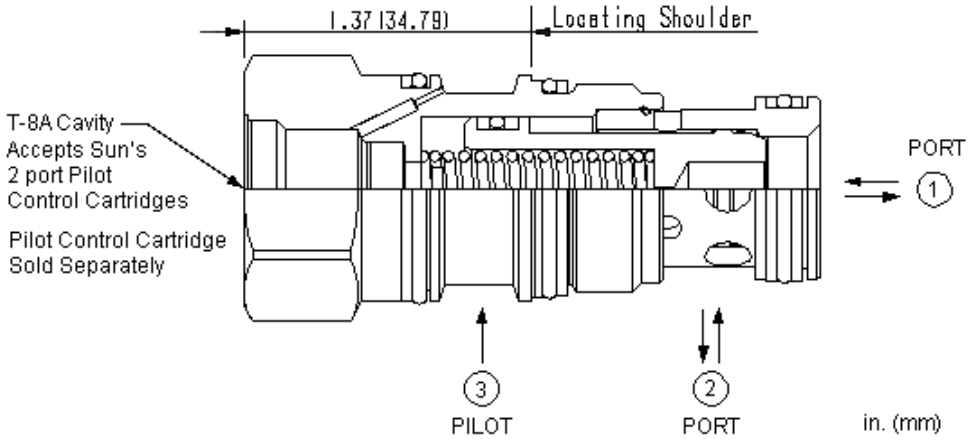
CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
D 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
	V Viton	**/AP** Stainless Steel, Passivated

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity

SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-2A

snhy.com/LOFA8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 1 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOFA8DN

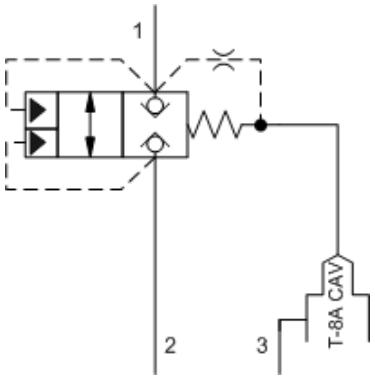
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

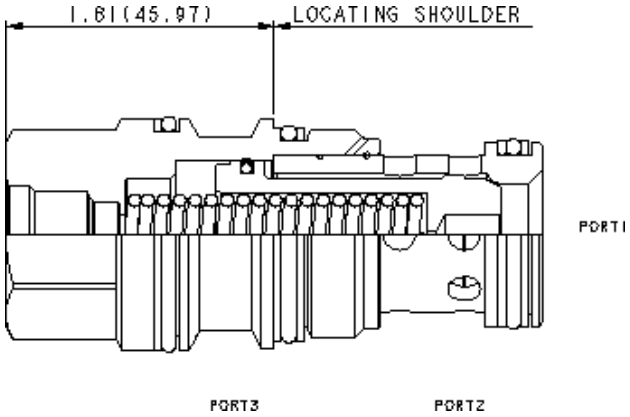
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity

SERIES 3 / CAPACITY: 380 L/min. / CAVITY: T-17A

snhy.com/LOHA8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 1 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOHA8DN

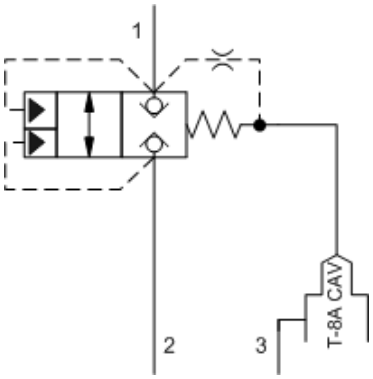
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

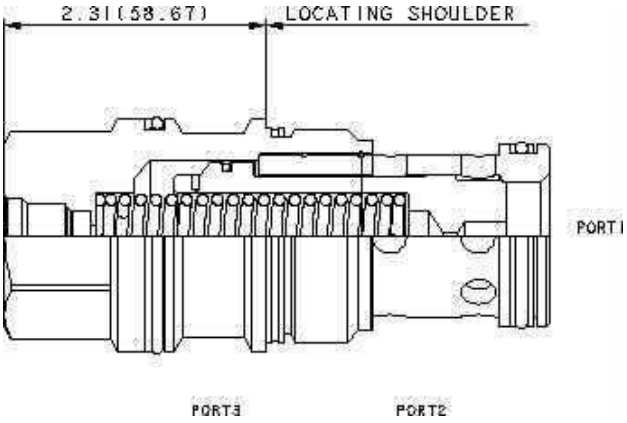
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity

SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-19A

snhy.com/LOJA8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 1 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

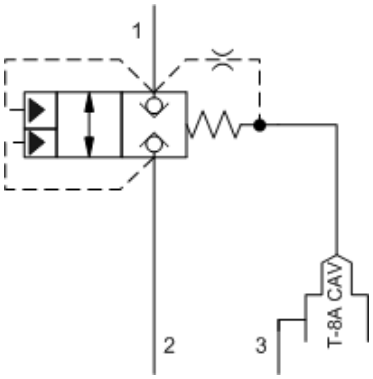
Model Code Example: LOJA8DN

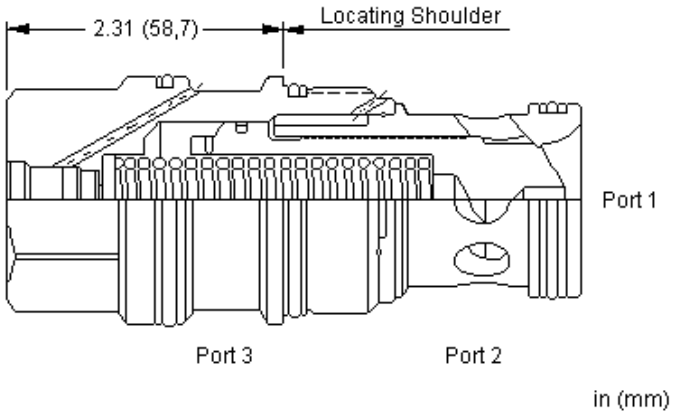
CRACKING PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 and integral T-8A control cavity

SERIES 4 / CAPACITY: 1100 L/min. / CAVITY: T-19AU

snhy.com/LOKA8





in (mm)

This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 1 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

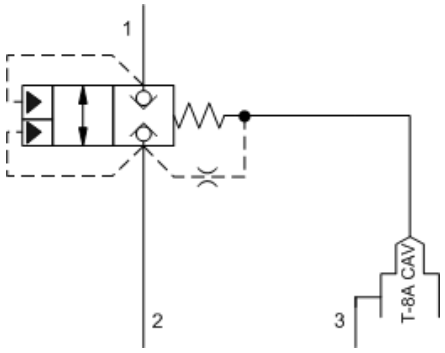
Model Code Example: LOKA8DN

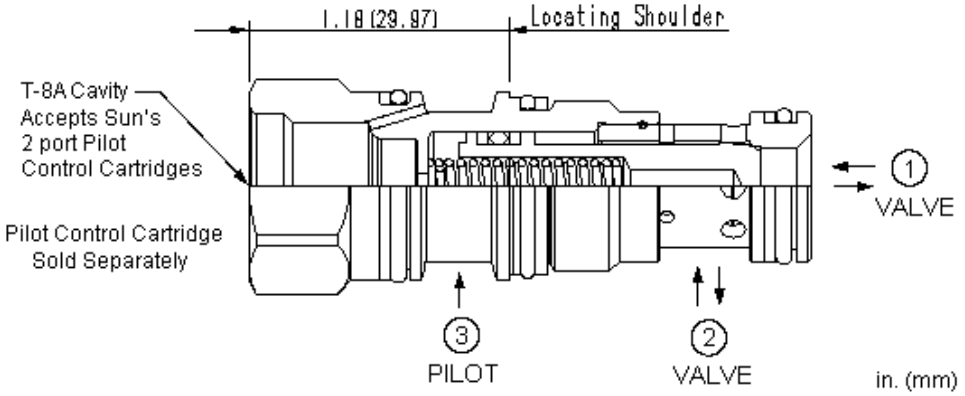
CRACKING PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity

SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-11A

snhy.com/LODB8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 2 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LODB8DN

BIAS PRESSURE (D)

D 50 psi (3,5 bar)

SEAL MATERIAL (N)

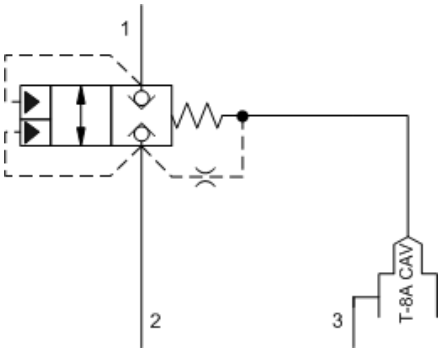
N Buna-N

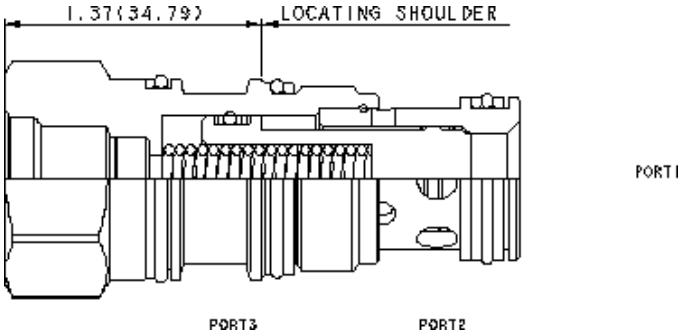
V Viton

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity

SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-2A

snhy.com/LOFB8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 2 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

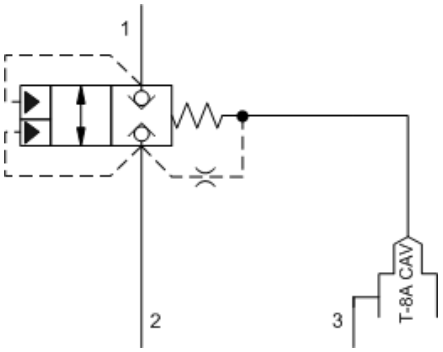
Model Code Example: LOFB8DN

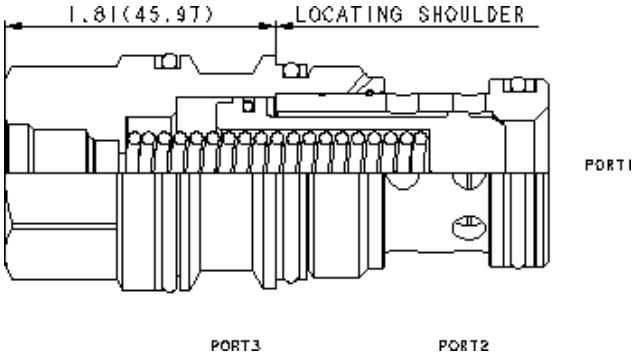
CRACKING PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity

SERIES 3 / CAPACITY: 380 L/min. / CAVITY: T-17A

snhy.com/LOHB8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 2 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOHB8DN

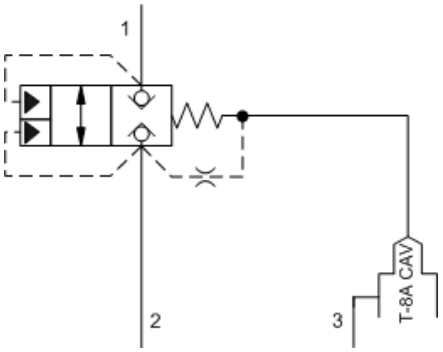
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

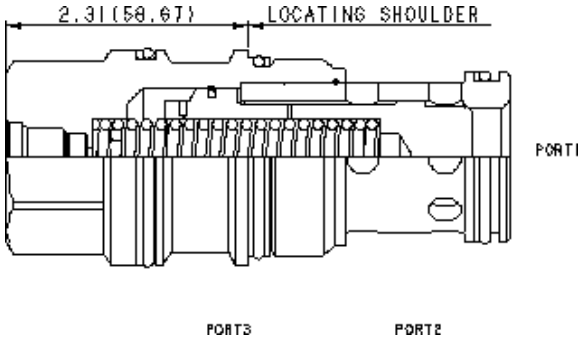
SEAL MATERIAL	(N)
N Buna-N	
E EPDM	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity

SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-19A

snhy.com/LOJB8





This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 2 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOJB8DN

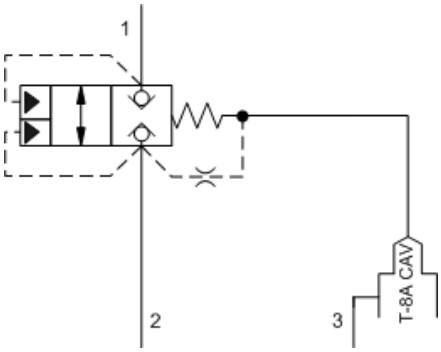
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 2 and integral T-8A control cavity

SERIES 4 / CAPACITY: 1100 L/min. / CAVITY: T-19AU

snhy.com/LOKB8



This valve is an unbalanced, vent-to-open, 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and uses port 2 as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOKB8DN

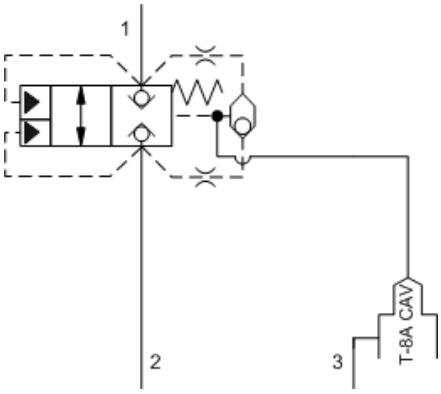
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

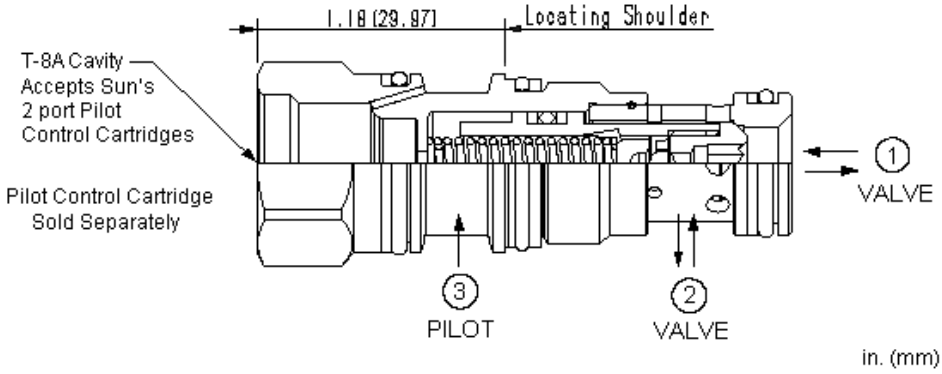
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity

SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-11A

snhy.com/LODD8





This valve is an unbalanced, vent-to-open 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and incorporates an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	0,66 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LODD8DN

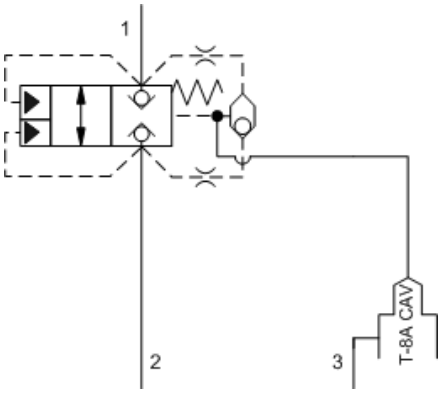
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

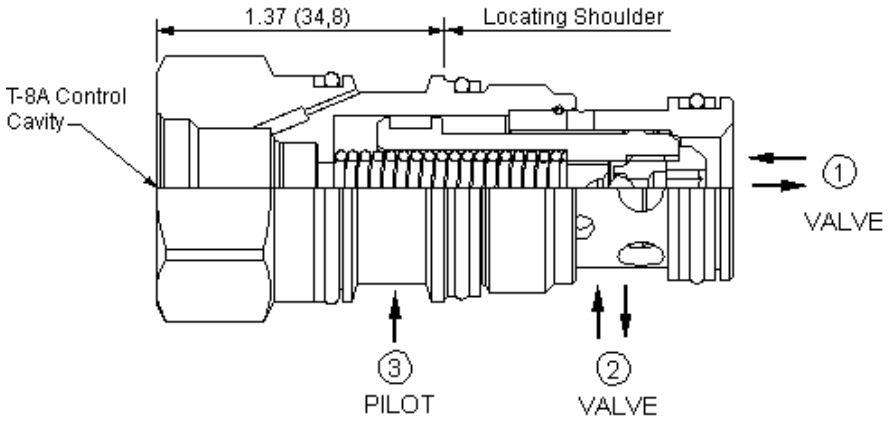
SEAL MATERIAL	(N)
N Buna-N	
E EPDM	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity

SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-2A

snhy.com/LOFD8





This valve is an unbalanced, vent-to-open 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and incorporates an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	1,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOFD8DN

CRACKING PRESSURE (D)

D 50 psi (3,5 bar)

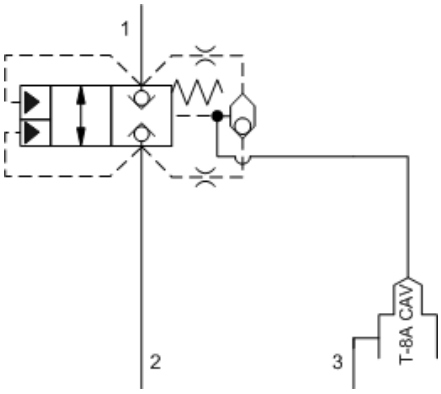
SEAL MATERIAL (N)

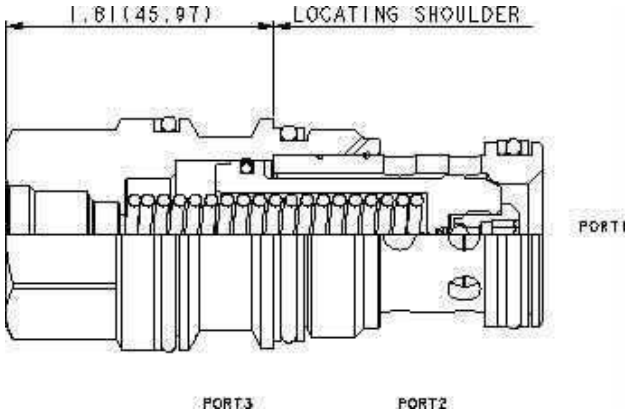
N Buna-N
E EPDM
V Viton

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity

SERIES 3 / CAPACITY: 380 L/min. / CAVITY: T-17A

snhy.com/LOHD8





This valve is an unbalanced, vent-to-open 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and incorporates an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	4,1 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,8 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

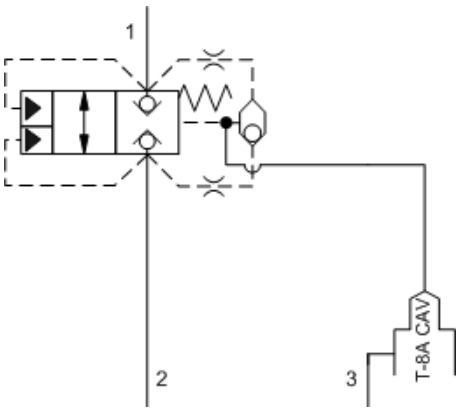
Model Code Example: LOHD8DN

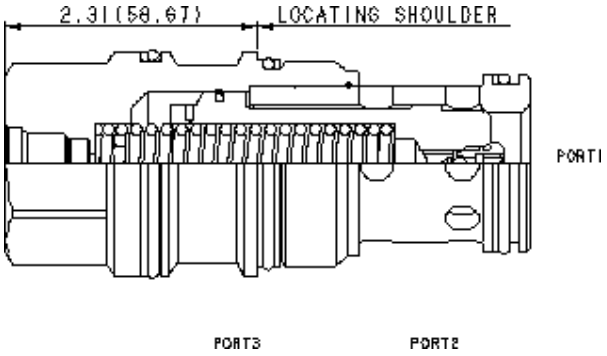
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
E EPDM	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity

SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-19A





This valve is an unbalanced, vent-to-open 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and incorporates an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	6,9 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: LOJD8DN

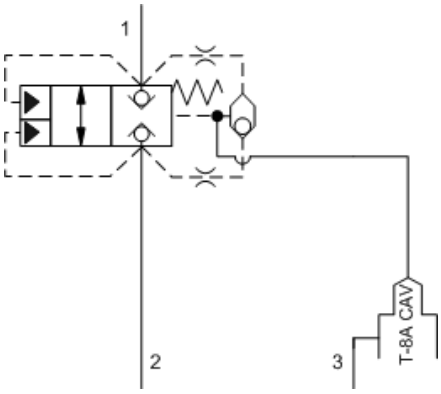
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

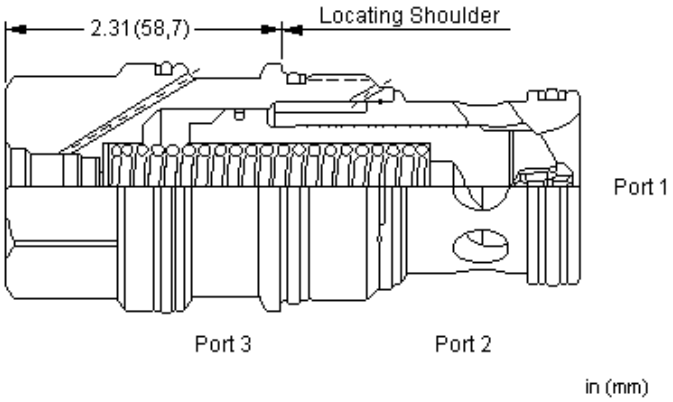
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Vent-to-open, spring biased closed, unbalanced poppet logic element with pilot source from port 1 or 2 and integral T-8A control cavity

SERIES 4 / CAPACITY: 1100 L/min. / CAVITY: T-19AU

snhy.com/LOKD8





This valve is an unbalanced, vent-to-open 2-way logic switching element with an integral pilot control cavity. It is spring biased closed and incorporates an integral shuttle so that the higher of pressures at either port 1 or port 2 can be used as a pilot source. With a pilot 2-way valve in the closed position installed in the T-8A cavity, the logic element will remain in the closed position. With the pilot valve open, the logic element will open providing there is a sufficient combination of pressures to overcome the spring force. The force generated at port 3, plus the spring force, must be greater than the sum of the forces acting at port 1 and port 2 for the valve to remain closed. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Pilot Volume Displacement	7,7 cc
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

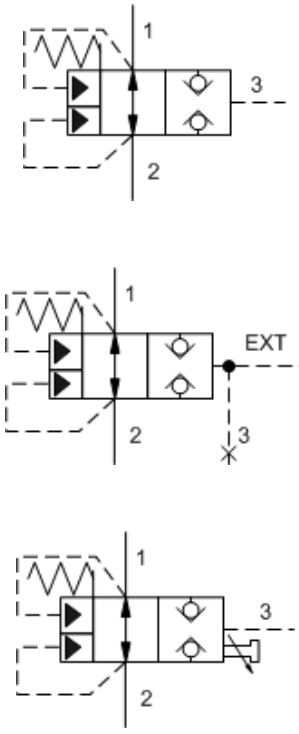
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

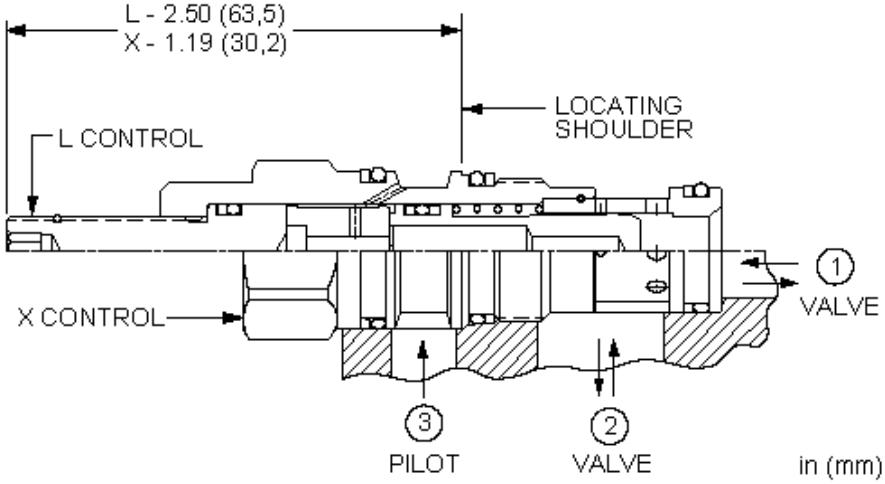
CONFIGURATION OPTIONS

Model Code Example: LOKD8DN

CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

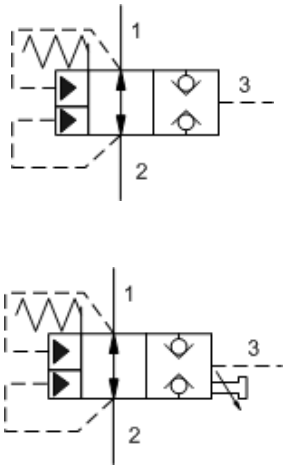
TECHNICAL DATA

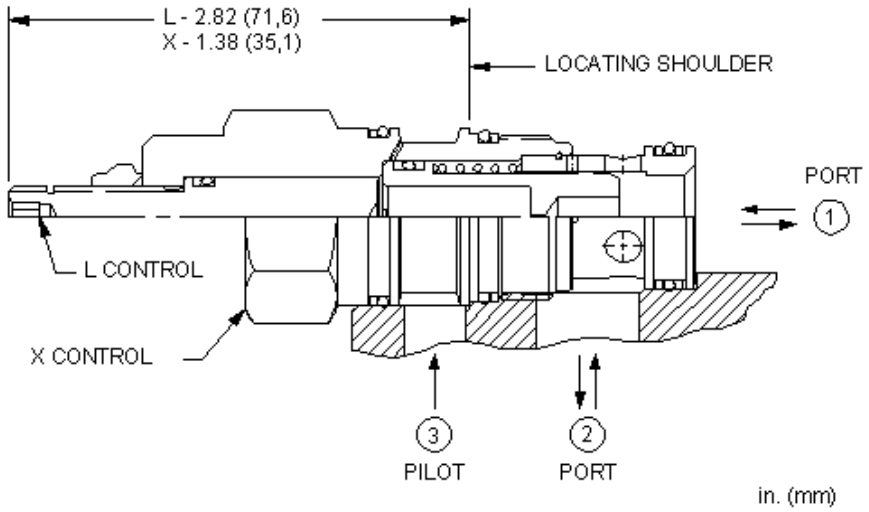
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	0,66 cc
Pilot Passage into Valve	0,8 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LODOXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

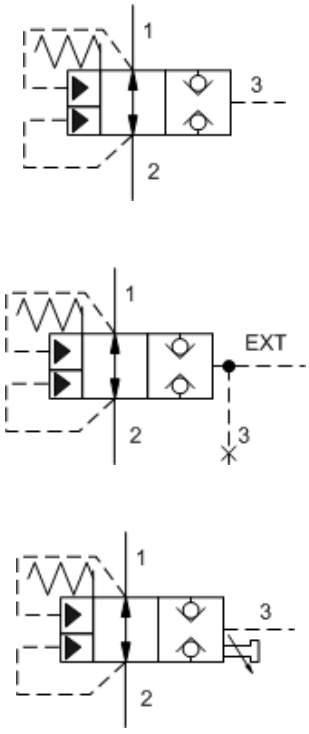
TECHNICAL DATA

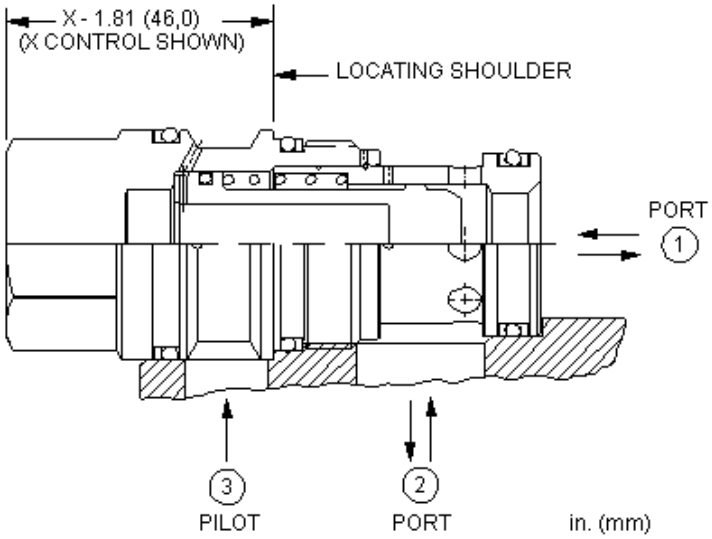
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	1,1 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOFOXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

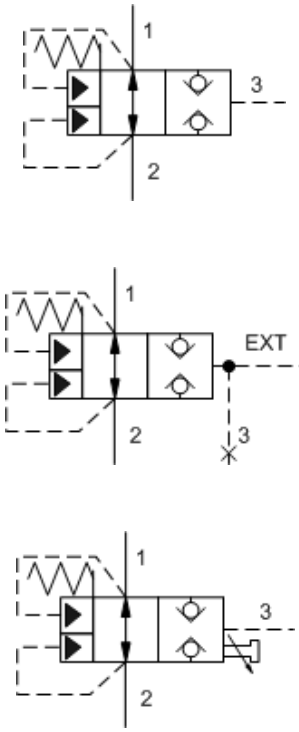
TECHNICAL DATA

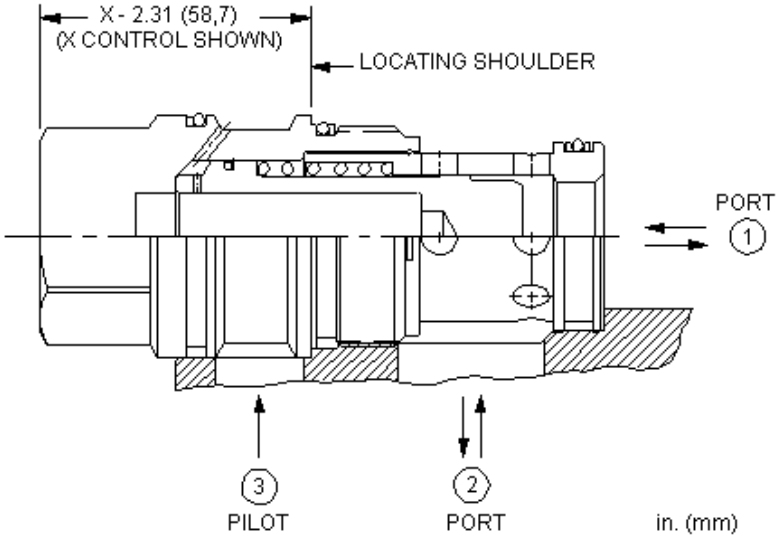
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	4,1 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHOXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

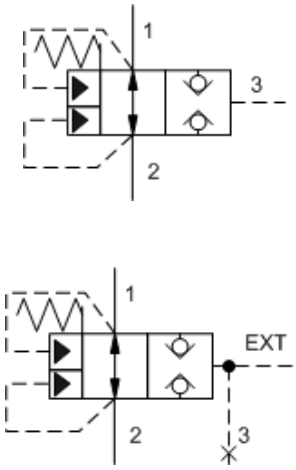
TECHNICAL DATA

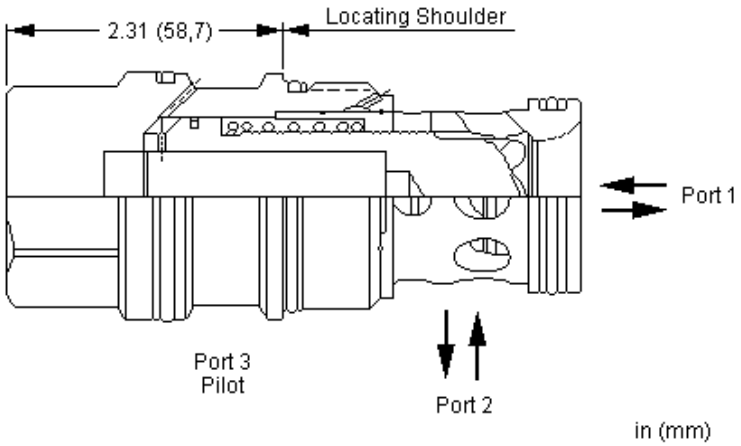
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	6,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJOXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

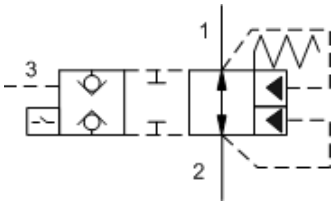
TECHNICAL DATA

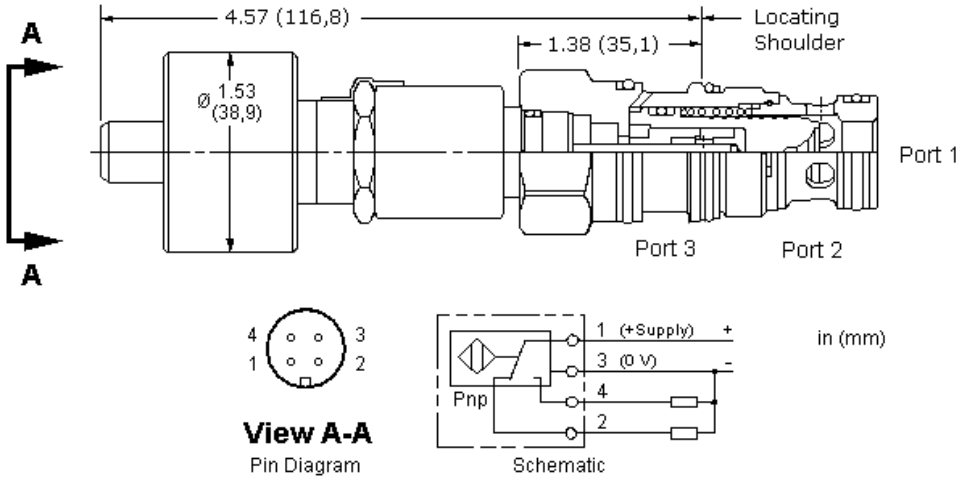
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.
Pilot Volume Displacement	7,7 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOKOXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

TECHNICAL DATA

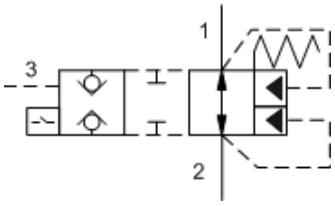
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	1,1 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

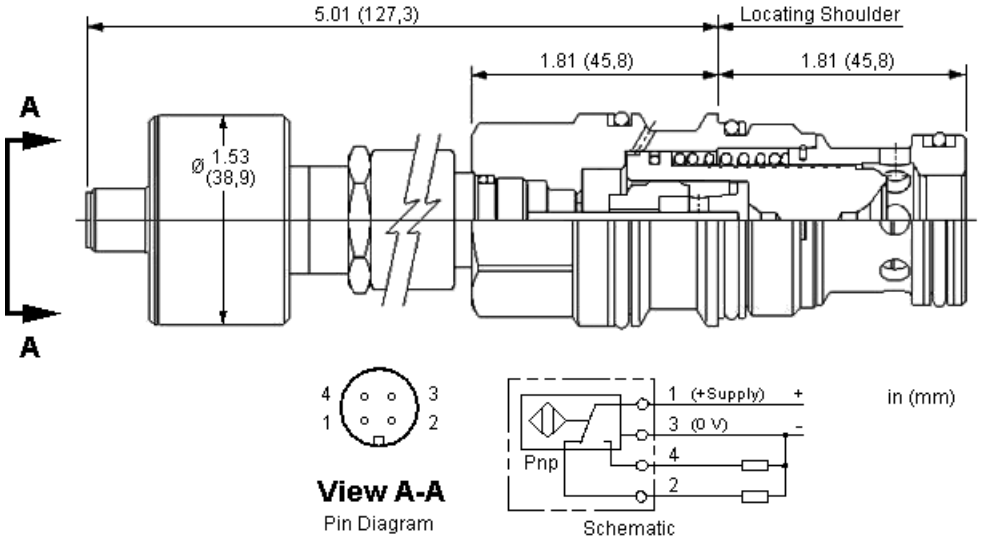
CONFIGURATION OPTIONS

Model Code Example: LOFOZDN

CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	4,1 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990117006

CONFIGURATION OPTIONS

Model Code Example: LOHOZDN

CRACKING PRESSURE (D)

D 50 psi (3,5 bar)

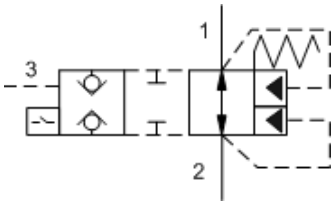
SEAL MATERIAL (N)

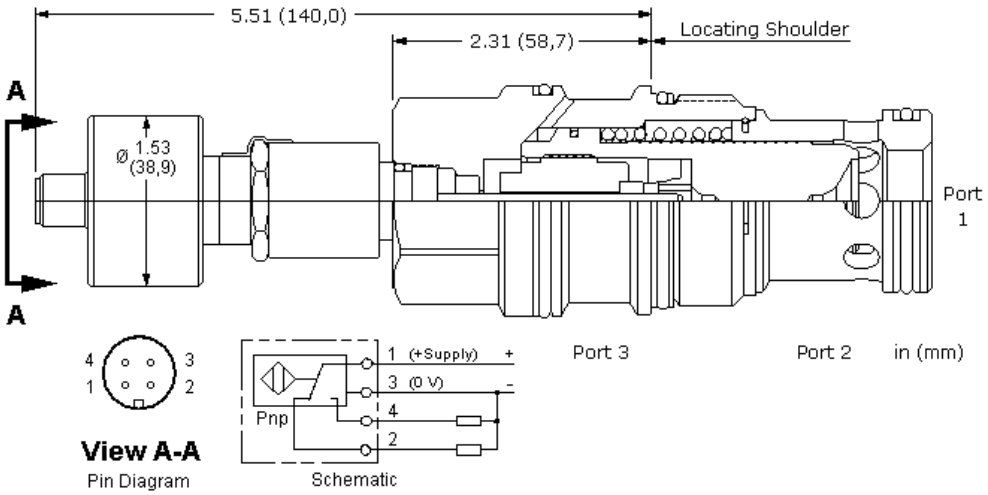
N Buna-N
V Viton

Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch

SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-19A

snhy.com/LOJOZ





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

TECHNICAL DATA

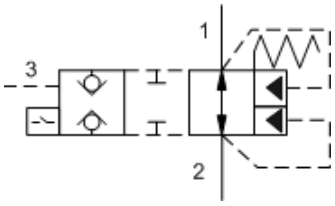
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	6,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

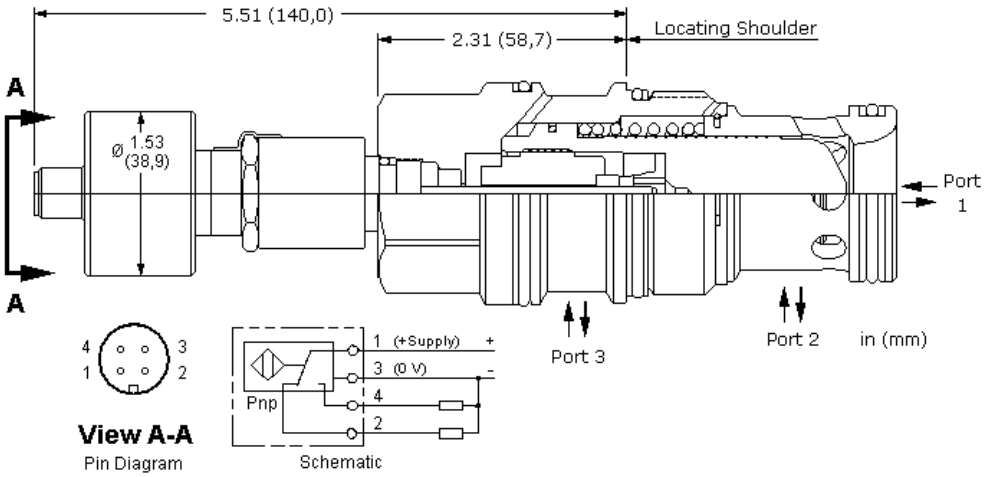
CONFIGURATION OPTIONS

Model Code Example: LOJOZDN

CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
V Viton	





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	7,7 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOKOZDN

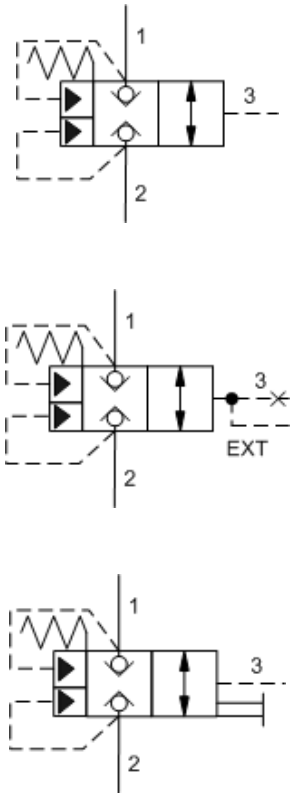
CRACKING PRESSURE (D)

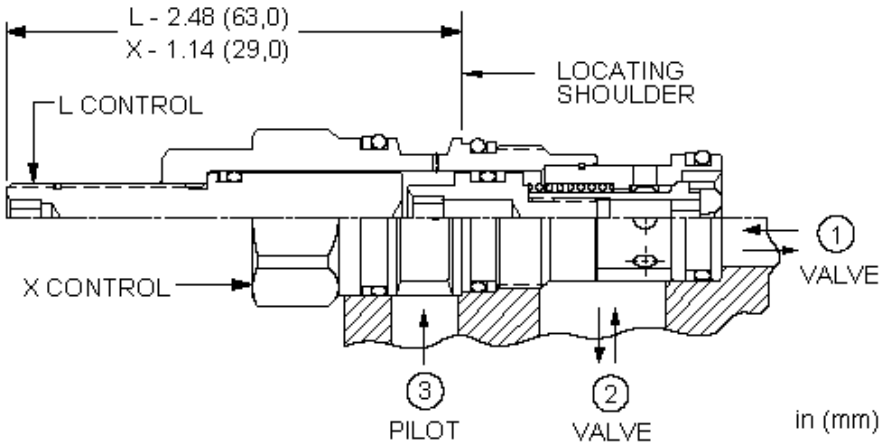
D 50 psi (3,5 bar)

SEAL MATERIAL (N)

N Buna-N

V Viton





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

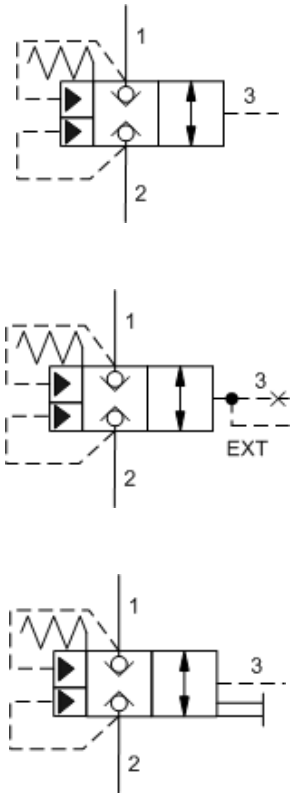
TECHNICAL DATA

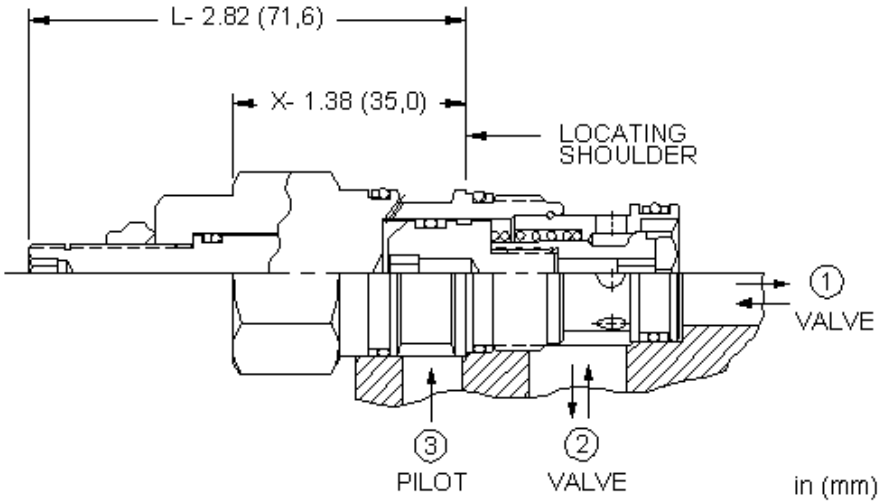
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@70 bar
Pilot Volume Displacement	0,33 cc
Pilot Passage into Valve	0,8 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LKDCXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		V Viton	**/AP** Stainless Steel, Passivated
			/LH Mild Steel, Zinc-Nickel





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

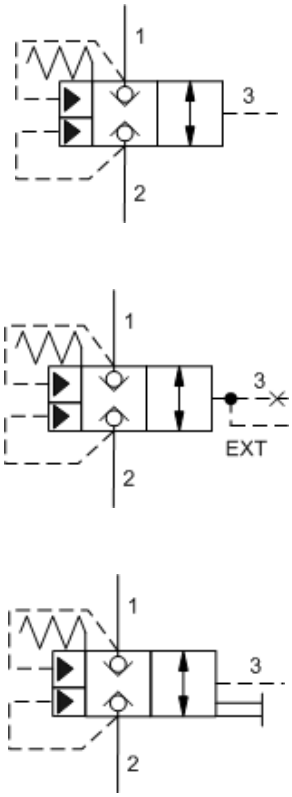
TECHNICAL DATA

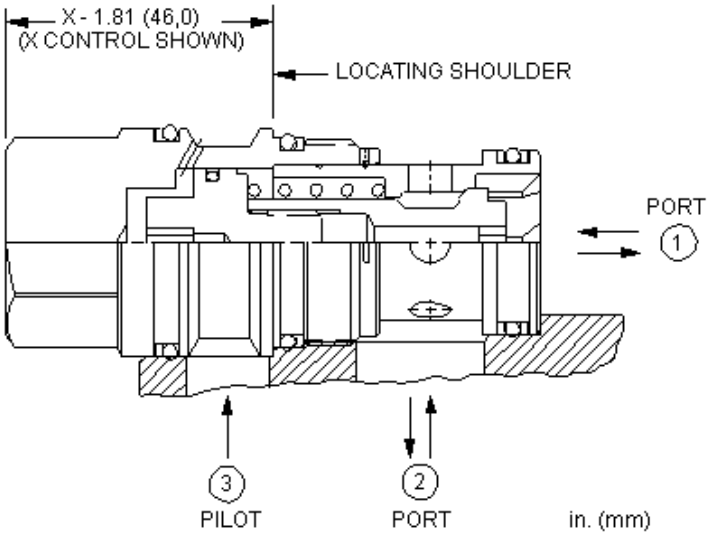
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@70 bar
Pilot Volume Displacement	0,98 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LKFCXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	**/LH** Mild Steel, Zinc-Nickel





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

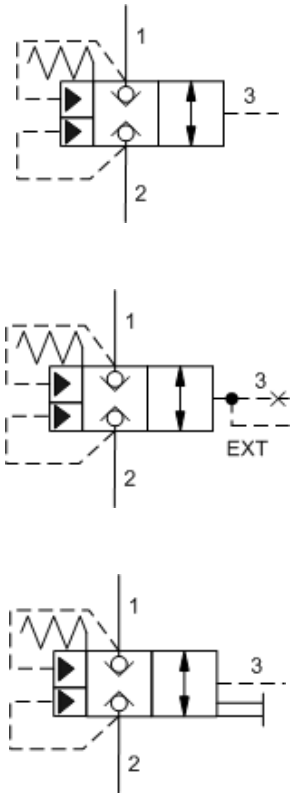
TECHNICAL DATA

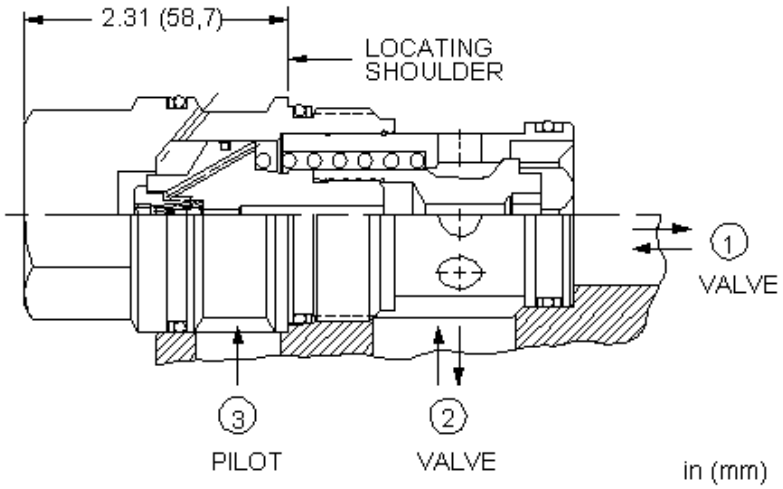
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@70 bar
Pilot Volume Displacement	2,5 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LKHCXDN

CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@70 bar
Pilot Volume Displacement	4,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

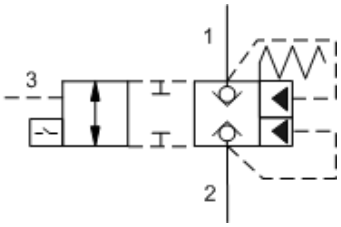
Model Code Example: LKJCXDN

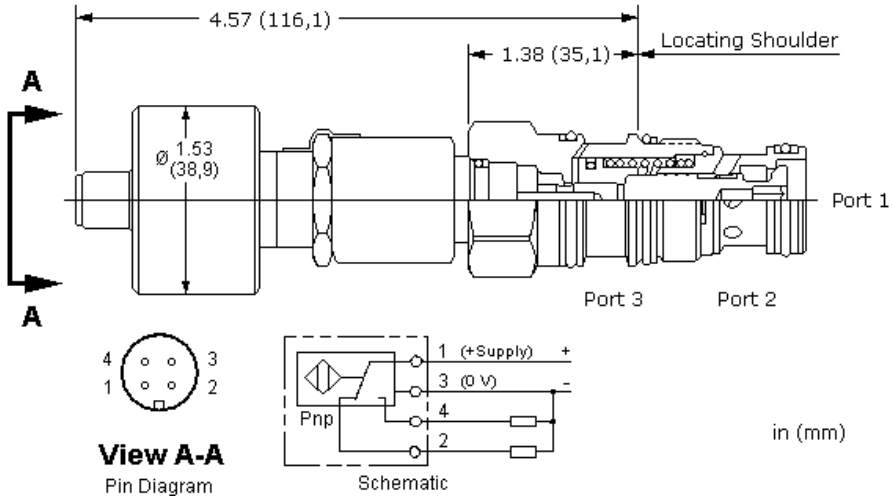
CONTROL (X)	MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
		E EPDM	**/AP** Stainless Steel, Passivated
		V Viton	

Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-2A

snhy.com/LKFCZ





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	0,98 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LKFCZDN

MINIMUM PILOT PRESSURE (D)

- **D** 50 psi (3,5 bar)

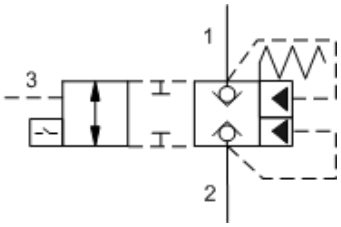
SEAL MATERIAL (N)

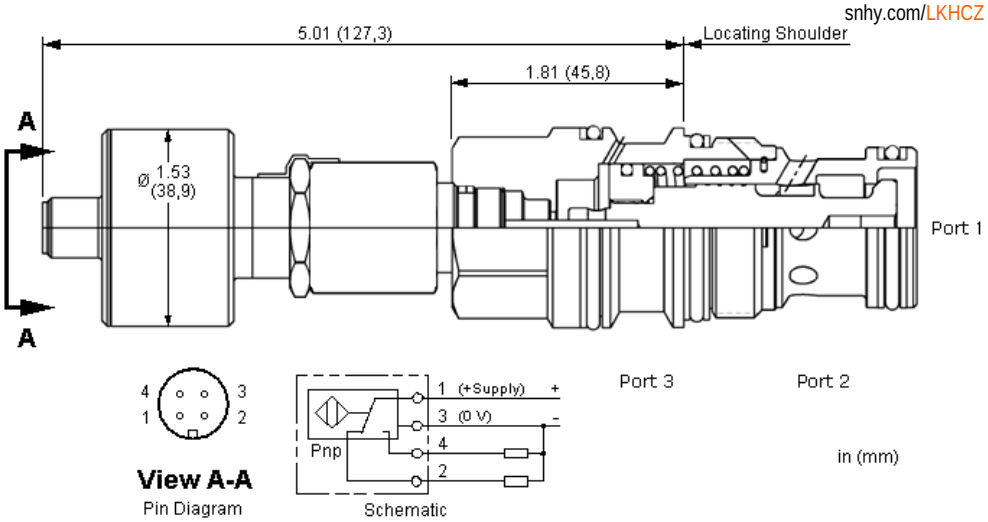
- **N** Buna-N
- **E** EPDM
- **V** Viton

Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A

snhy.com/LKHCZ





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	2,5 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LKHCZDN

MINIMUM PILOT PRESSURE (D)

- **D** 50 psi (3,5 bar)

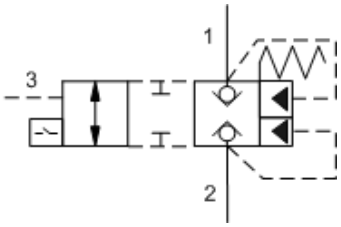
SEAL MATERIAL (N)

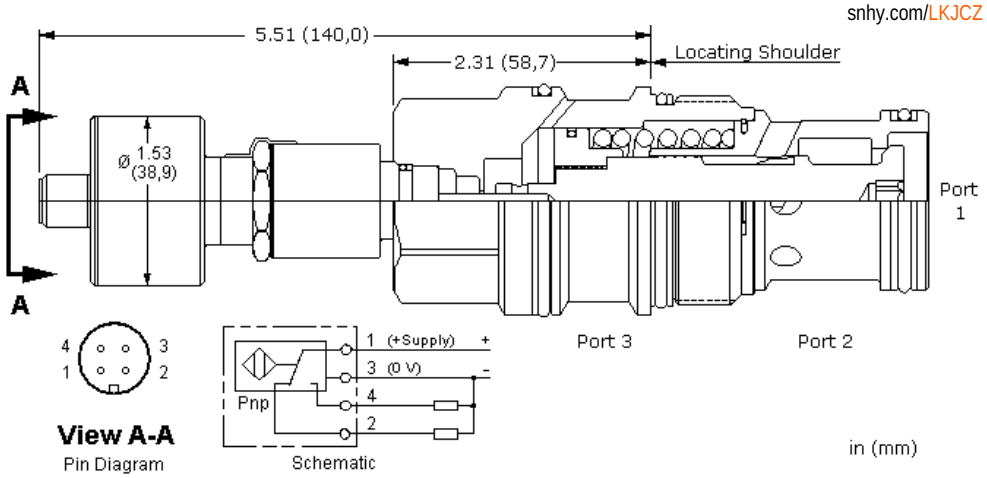
- **N** Buna-N
- **E** EPDM
- **V** Viton

Pilot-to-open, spring biased closed, unbalanced poppet logic element with position switch

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A

snhy.com/LKJCZ





These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

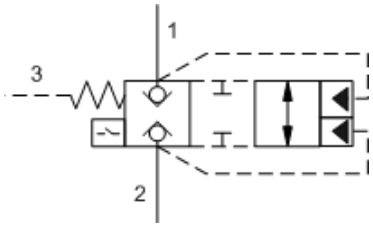
TECHNICAL DATA

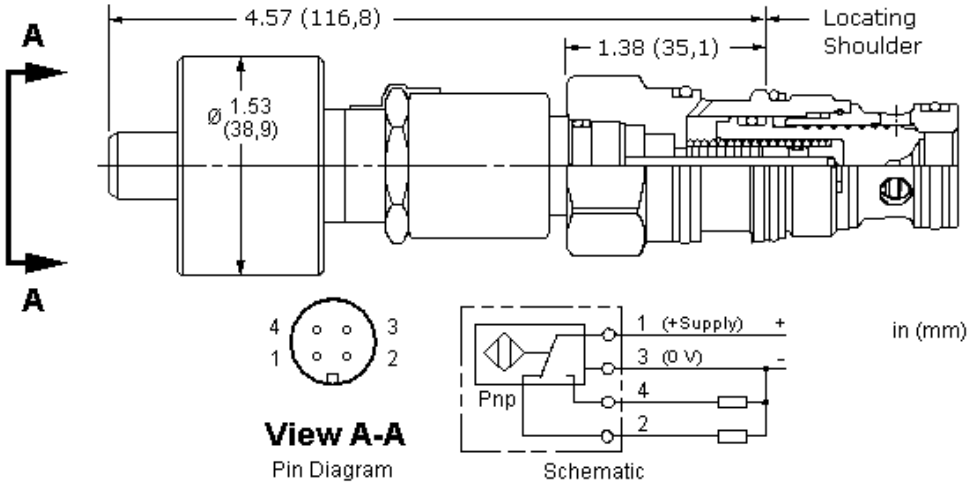
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	4,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LKJCZDN

MINIMUM PILOT PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

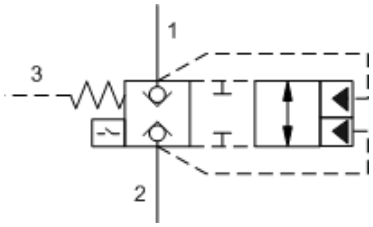
TECHNICAL DATA

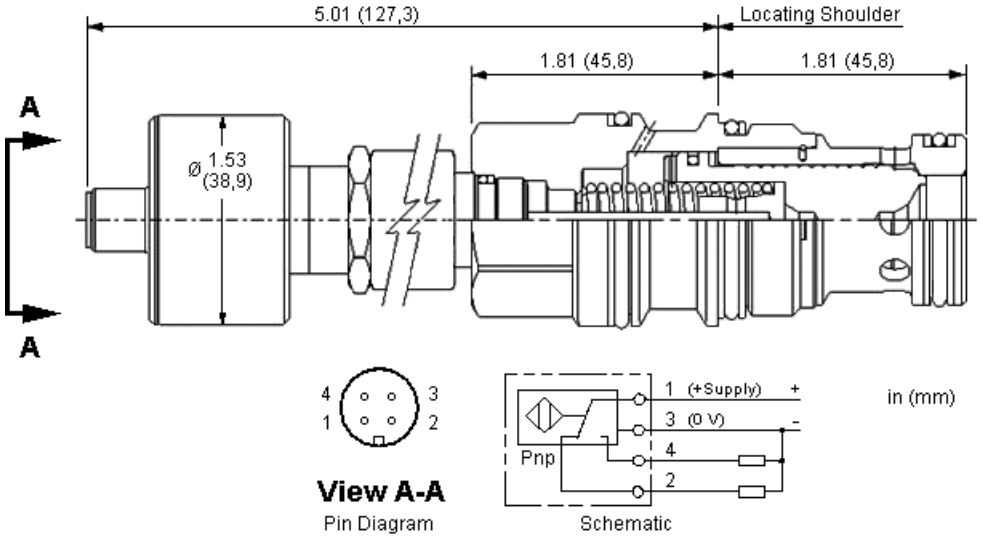
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	1,1 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOFCZDN

NOMINAL CONTROL PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	4,1 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOHCZDN

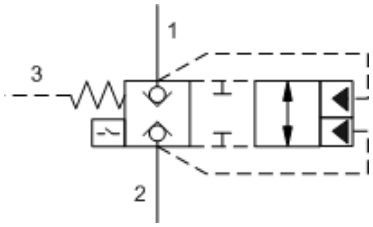
CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

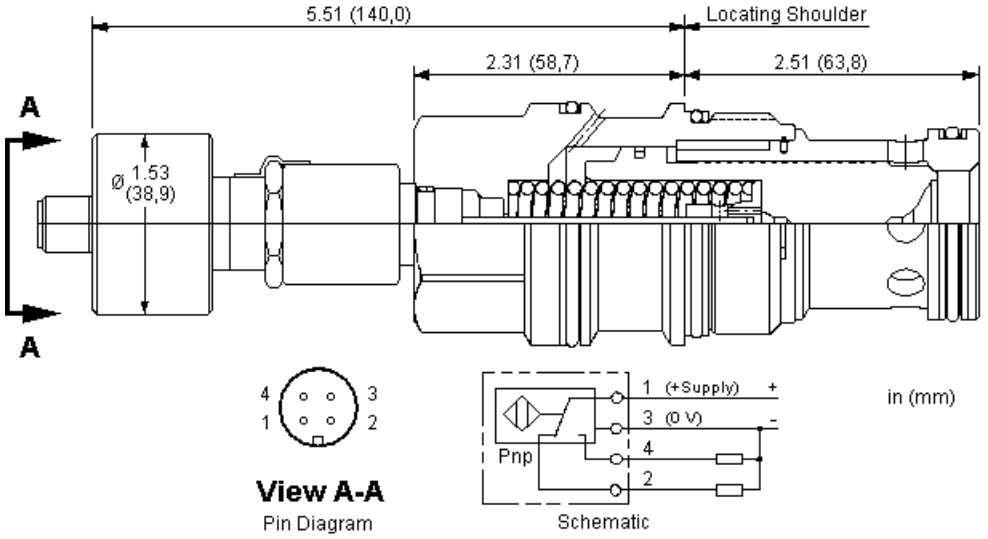
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Pilot-to-close, spring biased closed, unbalanced poppet logic element with position switch

SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-19A

snhy.com/LOJCZ





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

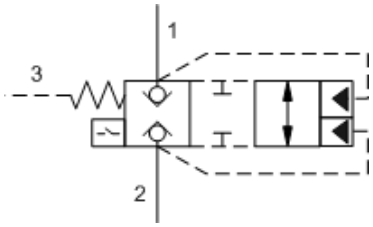
TECHNICAL DATA

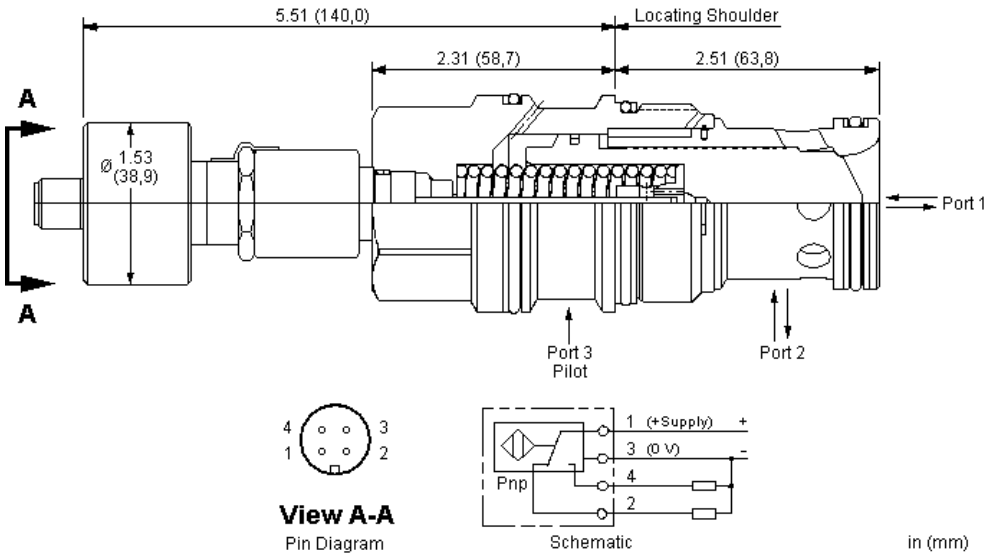
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	6,9 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LOJCZDN

CRACKING PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton





View A-A
Pin Diagram

Schematic

in (mm)

These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	7,7 cc
Pilot Passage into Valve	2,3 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

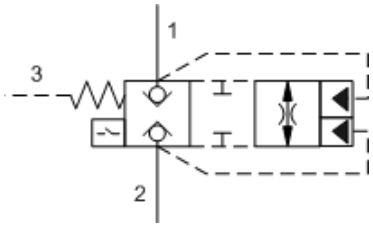
Model Code Example: LOKCZDN

CRACKING PRESSURE	(D)
D 50 psi (3,5 bar)	

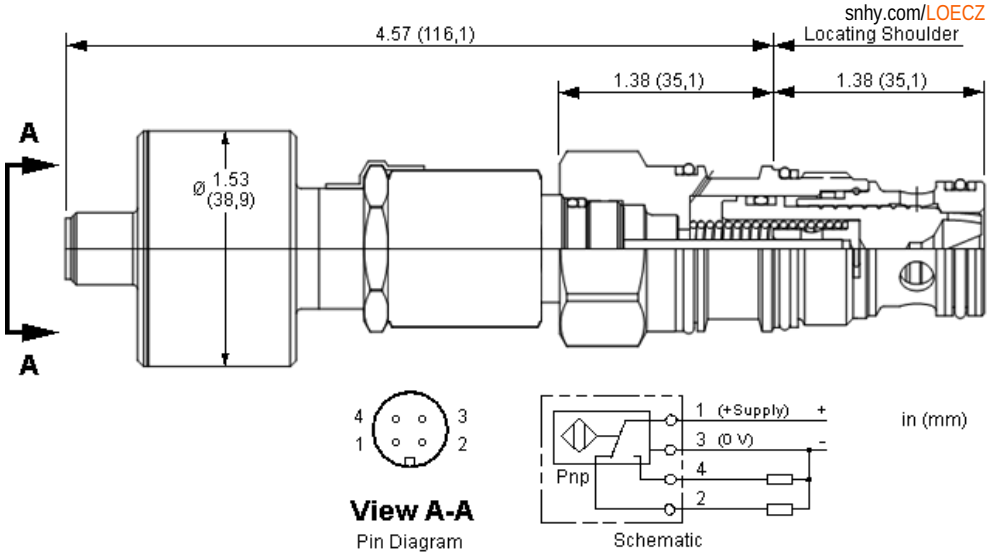
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Pilot-to-close, spring biased closed, unbalanced poppet logic element with metering notches and position switch

SERIES 2 / CAPACITY: 45 L/min. / CAVITY: T-2A



snhy.com/LOECZ



These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	1,1 cc
Pilot Passage into Valve	0,9 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LOECZDN

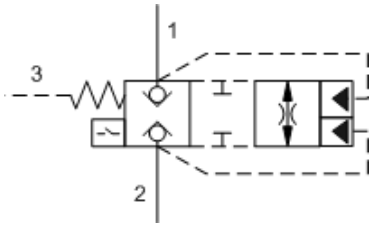
NOMINAL CONTROL PRESSURE (D)

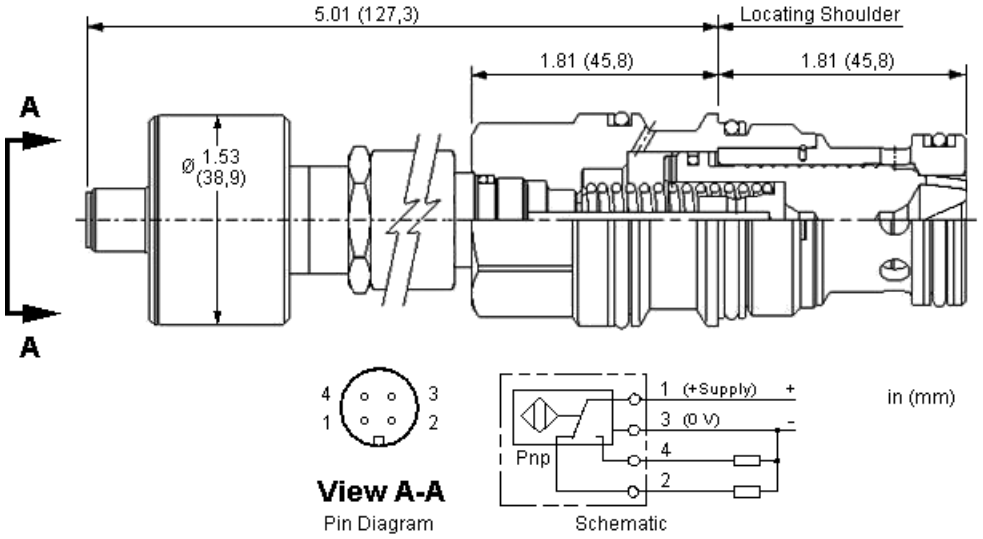
D 50 psi (3,5 bar)

SEAL MATERIAL (N)

N Buna-N

V Viton





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

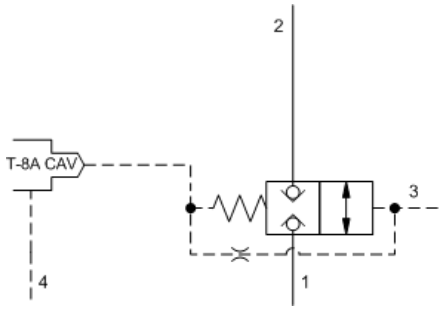
TECHNICAL DATA

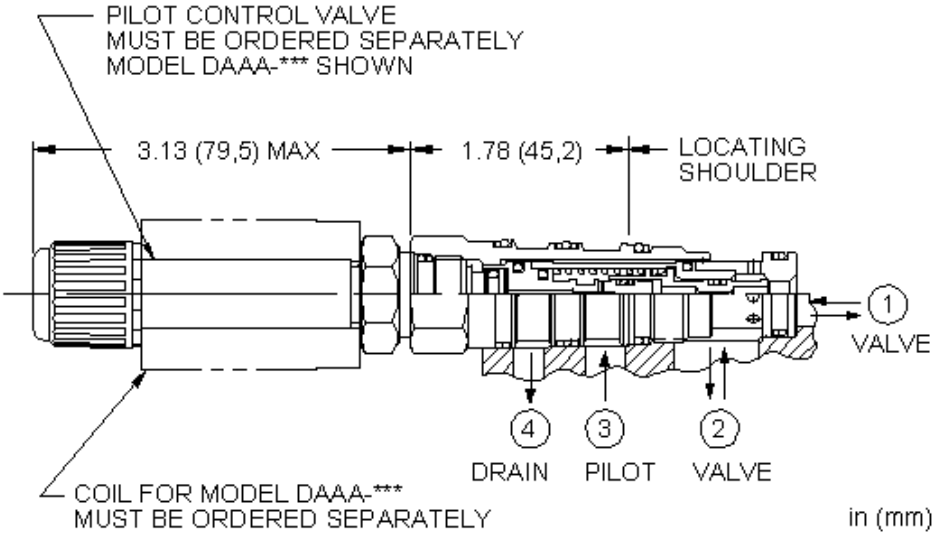
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	4,1 cc
Pilot Passage into Valve	1,50 mm
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LOGCZDN

NOMINAL CONTROL PRESSURE (D)	SEAL MATERIAL (N)
D 50 psi (3,5 bar)	**N** Buna-N
	V Viton





This is a normally closed, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains closed. Opening the 2-way valve shifts the poppet to the open position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

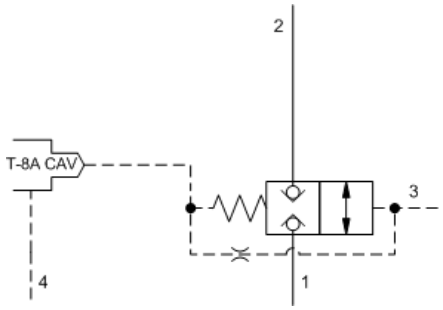
Model Code Example: DKDR8HN

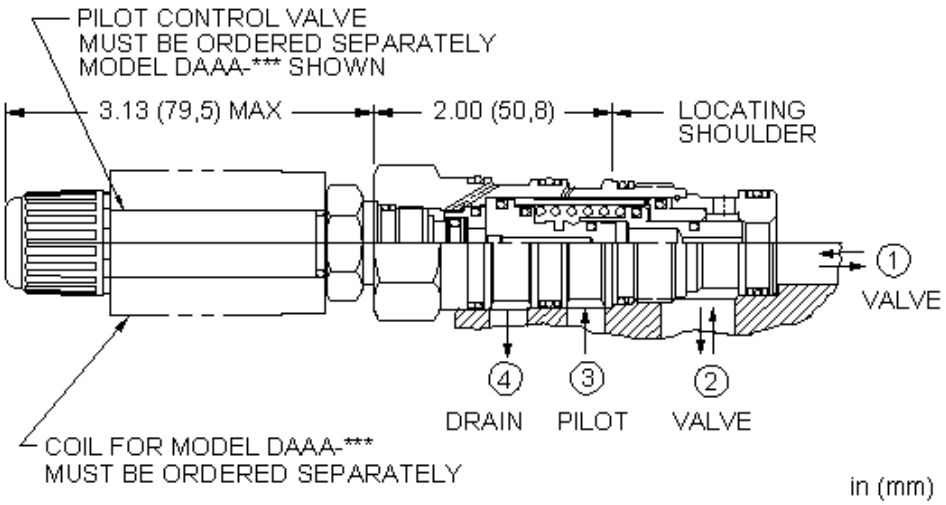
MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
H 400 psi (28 bar)	**N** Buna-N
	V Viton

Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open

SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-22A

snhy.com/DKFR8





This is a normally closed, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains closed. Opening the 2-way valve shifts the poppet to the open position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

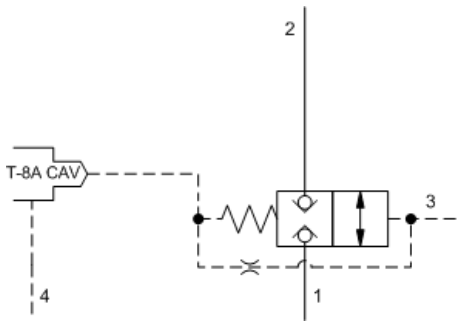
Model Code Example: DKFR8HN

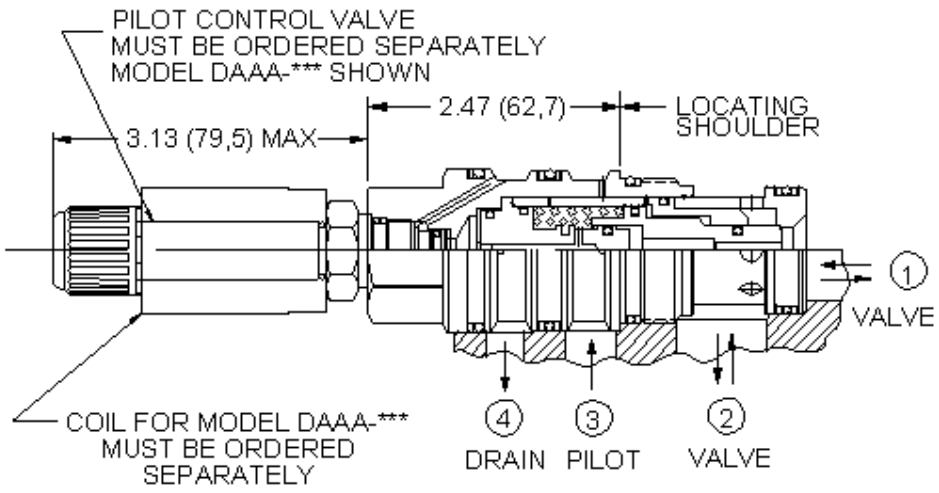
MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
H 300 psi (20 bar)	**N** Buna-N
	V Viton

Normally closed, balanced poppet, logic element with integral T-8A control cavity - vent-to-open

SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-23A

snhy.com/DKHR8





This is a normally closed, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains closed. Opening the 2-way valve shifts the poppet to the open position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

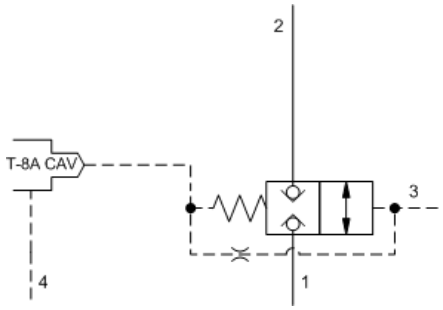
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

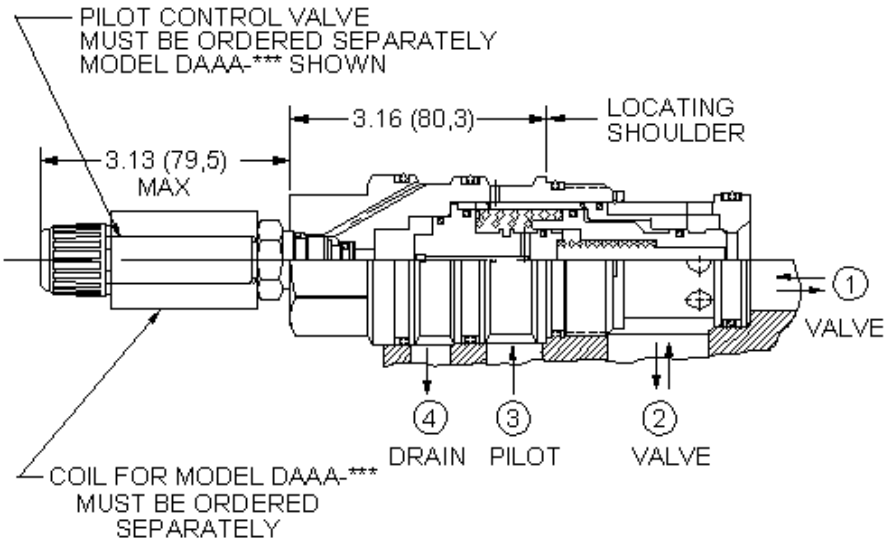
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: DKHR8HN

MINIMUM CONTROL PRESSURE (H)	SEAL MATERIAL (N)
H 300 psi (20 bar)	**N** Buna-N
	V Viton





This is a normally closed, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains closed. Opening the 2-way valve shifts the poppet to the open position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: DKJR8HN

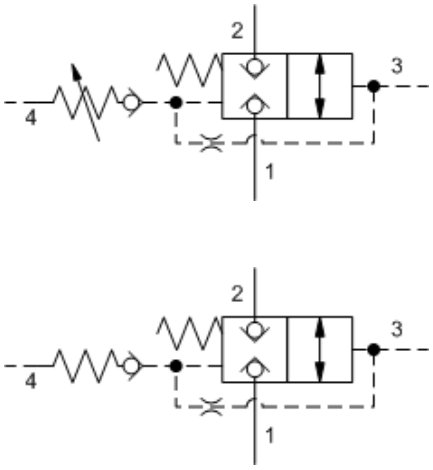
MINIMUM CONTROL PRESSURE (H)

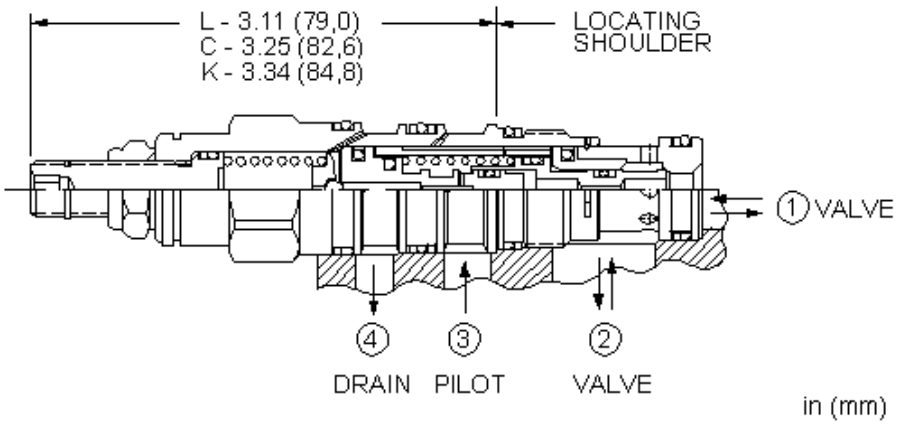
H 300 psi (20 bar)

SEAL MATERIAL (N)

N Buna-N

V Viton





This is a normally closed, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains closed until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the open position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DKDPLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

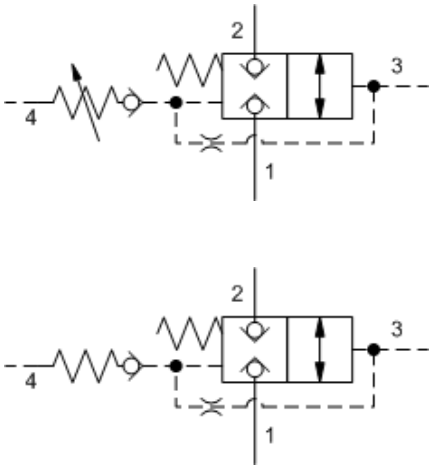
- **A** 400 - 3000 psi (28 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 400 - 1500 psi (28 - 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 400 - 4500 psi (28 - 315 bar), 1000 psi (70 bar) Standard Setting

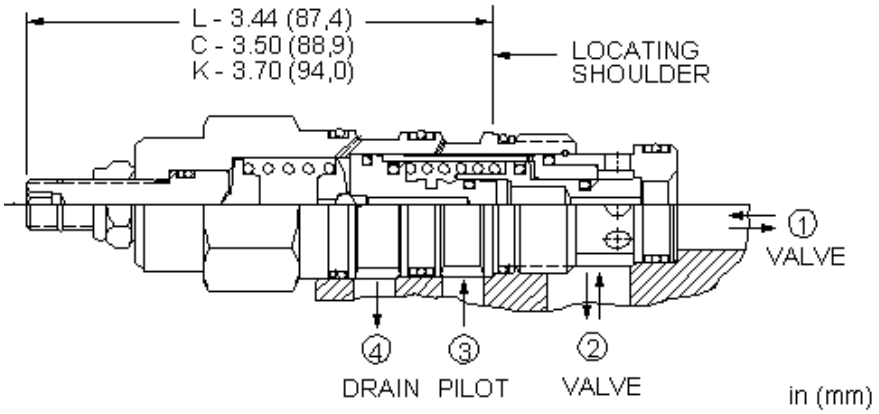
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated





This is a normally closed, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains closed until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the open position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DKFPLAN

CONTROL (L)

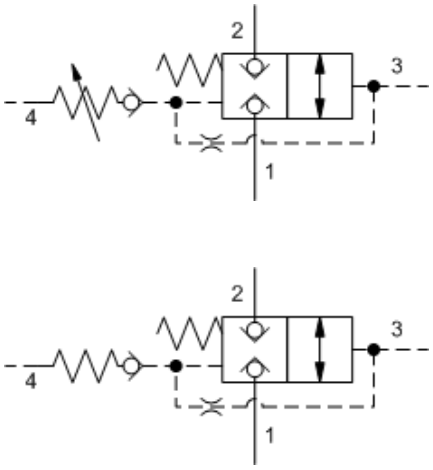
- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set

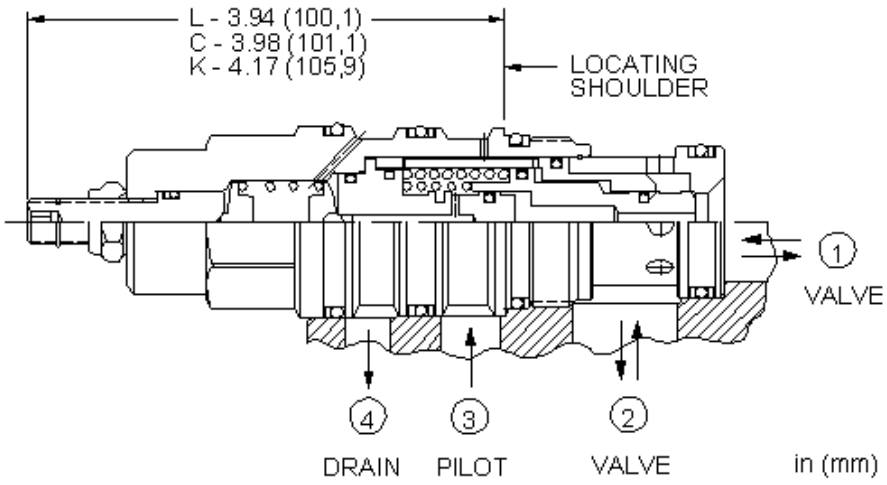
ADJUSTMENT RANGE (A)

- **A** 250 - 3000 psi (18 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 250 - 1500 psi (18 - 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 250 - 4500 psi (18 - 315 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton





This is a normally closed, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains closed until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the open position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DKHPLAN

CONTROL (L)

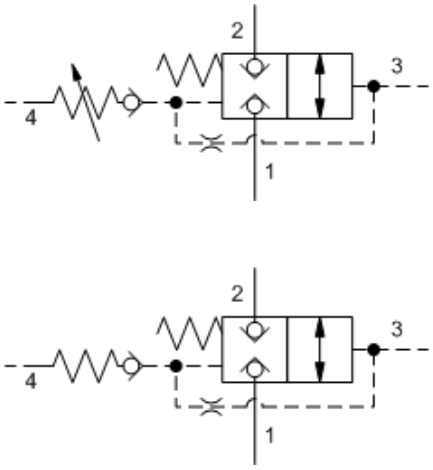
- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

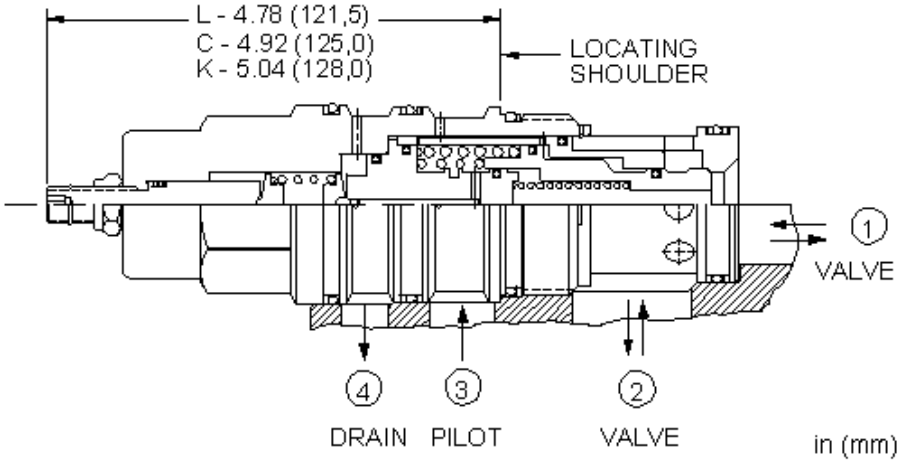
ADJUSTMENT RANGE (A)

- **A** 200 - 3000 psi (14 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 200 - 1500 psi (14 - 105 bar), 1000 psi (70 bar) Standard Setting
- **D** 200 - 800 psi (14 - 55 bar), 400 psi (28 bar) Standard Setting
- **W** 200 - 4500 psi (14 - 315 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton





This is a normally closed, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains closed until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the open position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: DKJPLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

- **A** 200 - 3000 psi (14 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 200 - 1500 psi (14 - 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 200 - 4500 psi (14 - 315 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

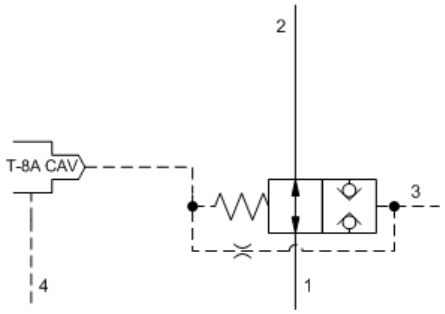
MATERIAL/COATING

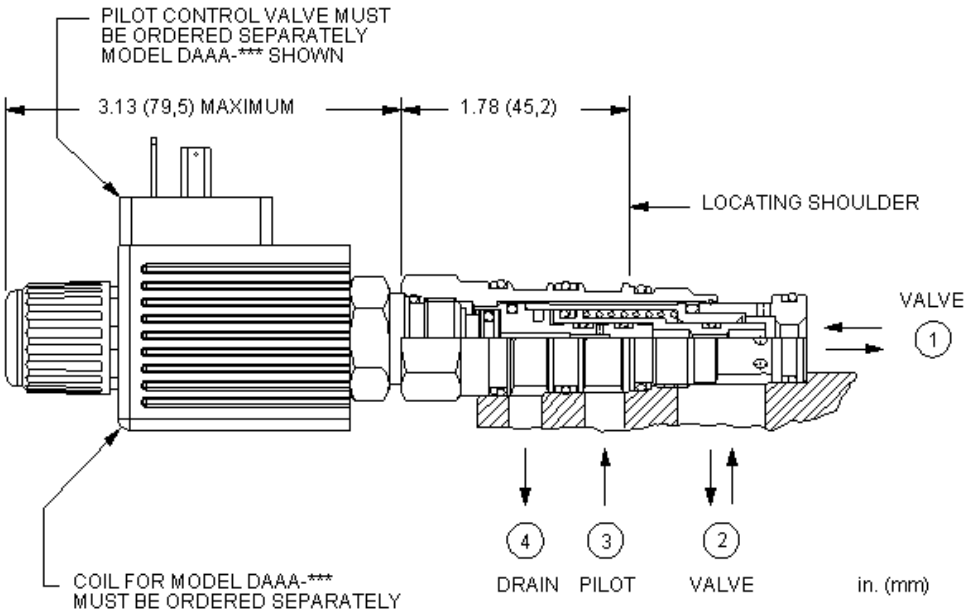
- Standard Material/Coating
- **/AP** Stainless Steel, Passivated

Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close

SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-21A

snhy.com/DODR8





This is a normally open, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains open. Opening the 2-way valve shifts the poppet to the closed position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

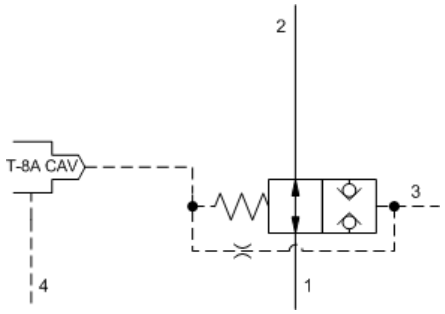
Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

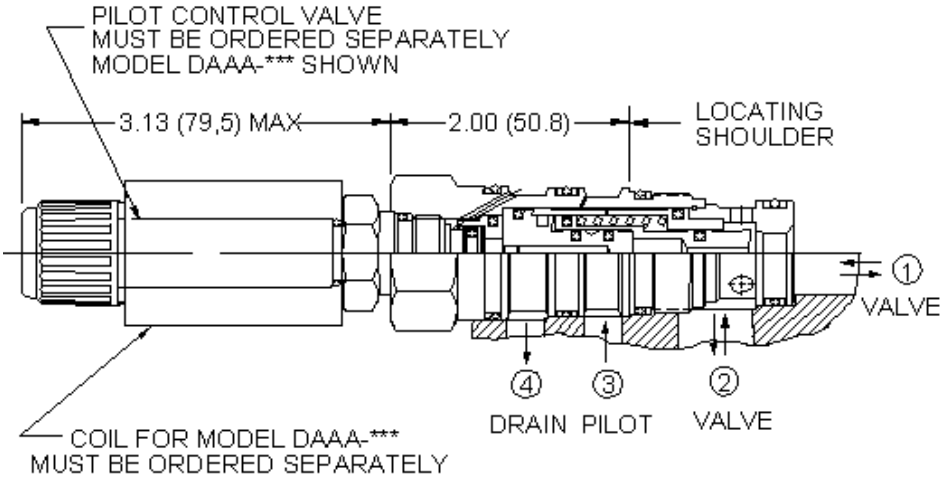
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: DODR8HN

MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
H 400 psi (28 bar)	**N** Buna-N
	V Viton





This is a normally open, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains open. Opening the 2-way valve shifts the poppet to the closed position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

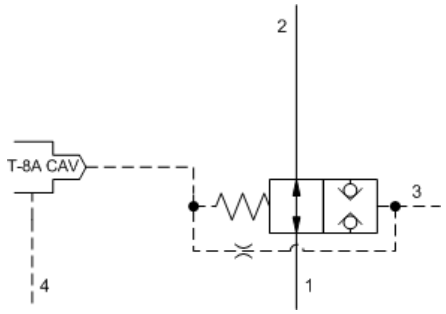
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

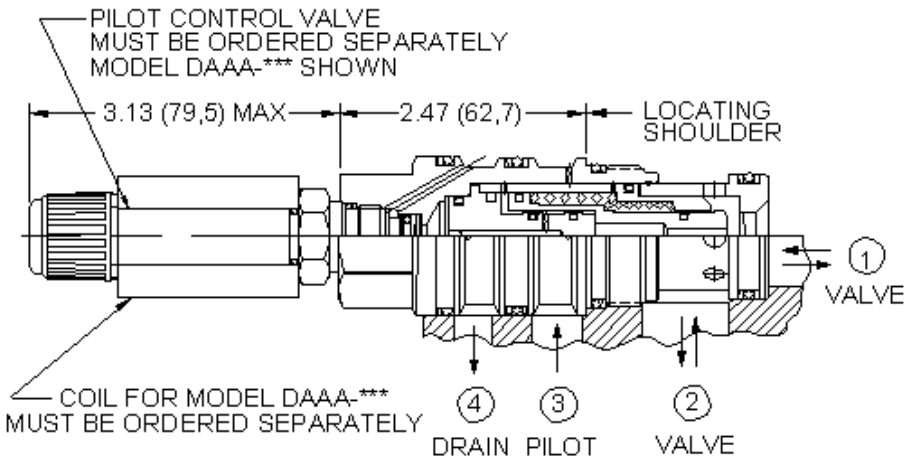
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: DOFR8HN

MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
H 300 psi (20 bar)	**N** Buna-N
	V Viton





This is a normally open, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains open. Opening the 2-way valve shifts the poppet to the closed position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DOHR8HN

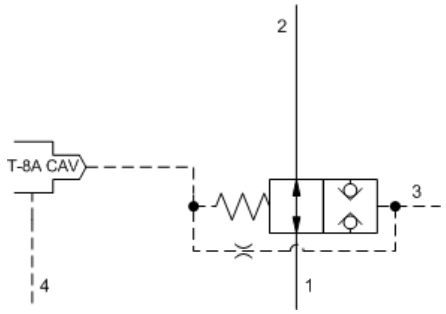
MINIMUM PILOT PRESSURE	(H)
H 200 psi (14 bar)	

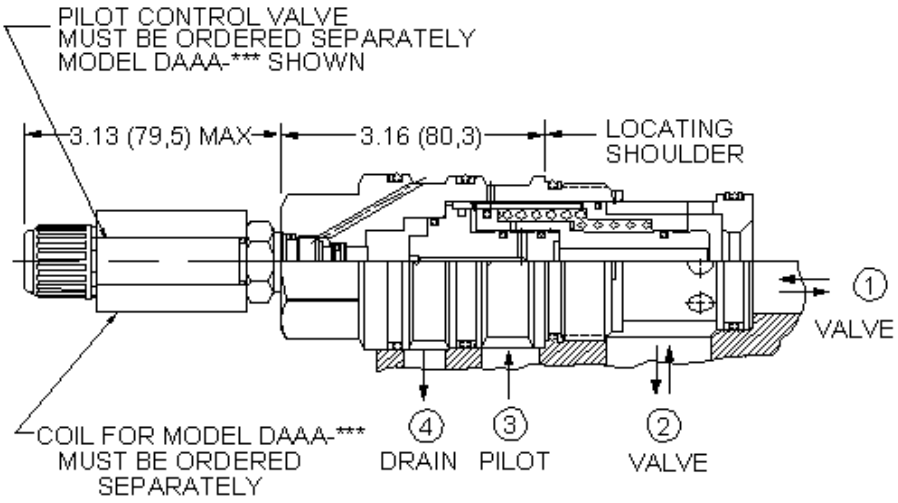
SEAL MATERIAL	(N)
N Buna-N	
V Viton	

Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close

SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-24A

snhy.com/DOJR8





This is a normally open, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains open. Opening the 2-way valve shifts the poppet to the closed position, provided there is sufficient pressure at port 3.

TECHNICAL DATA

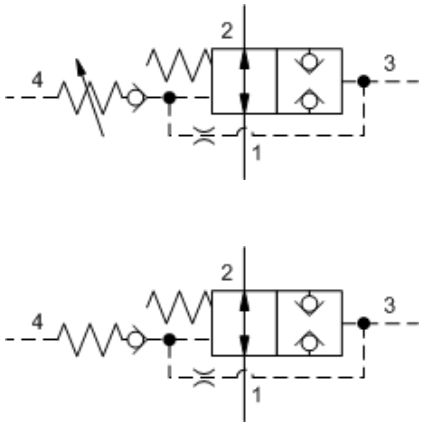
Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

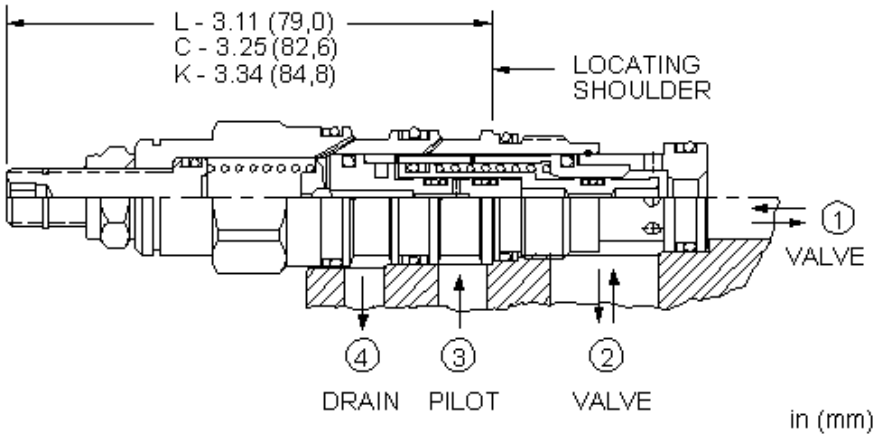
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: DOJR8HN

MINIMUM PILOT PRESSURE (H)	SEAL MATERIAL (N)
H 300 psi (20 bar)	**N** Buna-N
	V Viton





This is a normally open, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains open until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the closed position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	28 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: DODPLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

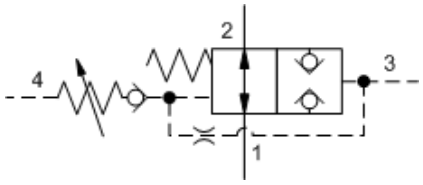
- **A** 400 - 3000 psi (28 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 400 - 1500 psi (28 - 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 400 - 4500 psi (28 - 315 bar), 1000 psi (70 bar) Standard Setting

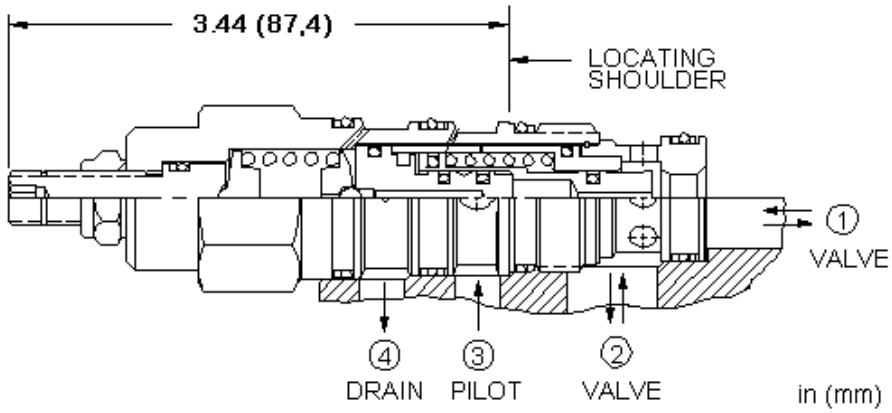
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated





This is a normally open, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains open until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the closed position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: DOFPLAN

CONTROL (L)

L Standard Screw Adjustment

ADJUSTMENT RANGE (A)

A 200 - 3000 psi (14 - 210 bar), 1000 psi (70 bar) Standard Setting

B 200 - 1500 psi (14 - 105 bar), 1000 psi (70 bar) Standard Setting

W 200 - 4500 psi (14 - 315 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

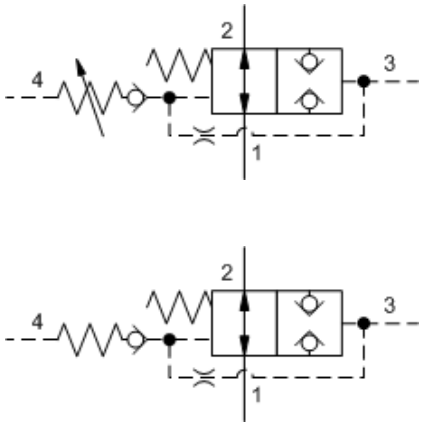
N Buna-N

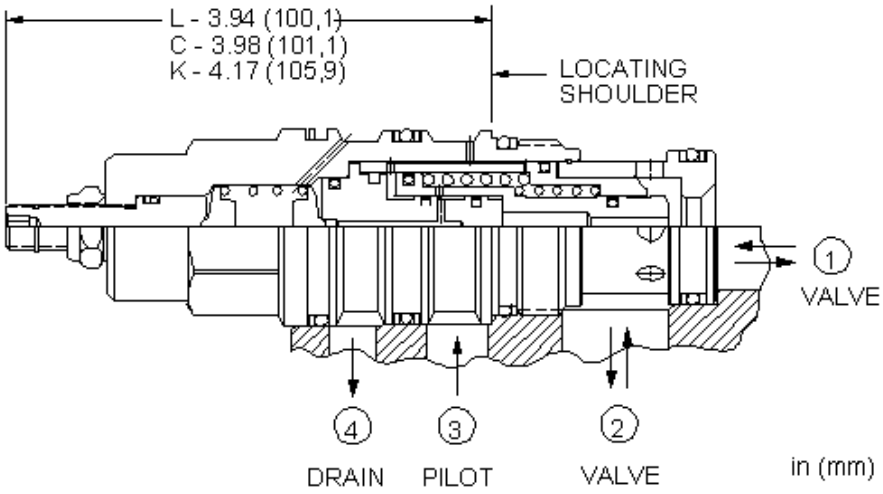
V Viton

MATERIAL/COATING

Standard Material/Coating

/AP Stainless Steel, Passivated





This is a normally open, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains open until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the closed position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: DOHPLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

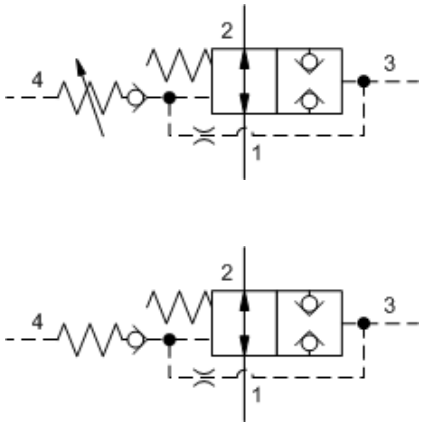
- **A** 200 - 3000 psi (14 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 200 - 1500 psi (14 - 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 200 - 4500 psi (14 - 315 bar), 1000 psi (70 bar) Standard Setting

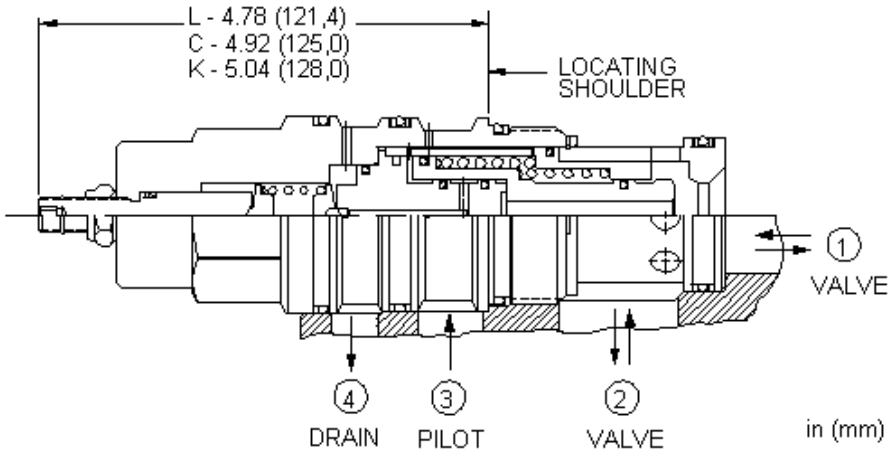
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated





This is a normally open, balanced poppet, switching element. When pilot pressure is applied to port 3, the poppet remains open until the pilot pressure reaches the setting established by the integral pilot relief stage, at which point the poppet shifts to the closed position.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	20 bar
Maximum Operating Pressure	350 bar
Control Pilot Flow	See Performance Data
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: DOJPLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

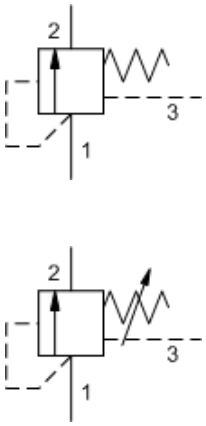
- **A** 200 - 3000 psi (14 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 200 - 1500 psi (14 - 105 bar), 1000 psi (70 bar) Standard Setting
- **D** 200 - 800 psi (14 - 55 bar)
- **W** 200 - 4500 psi (14 - 315 bar), 1000 psi (70 bar) Standard Setting

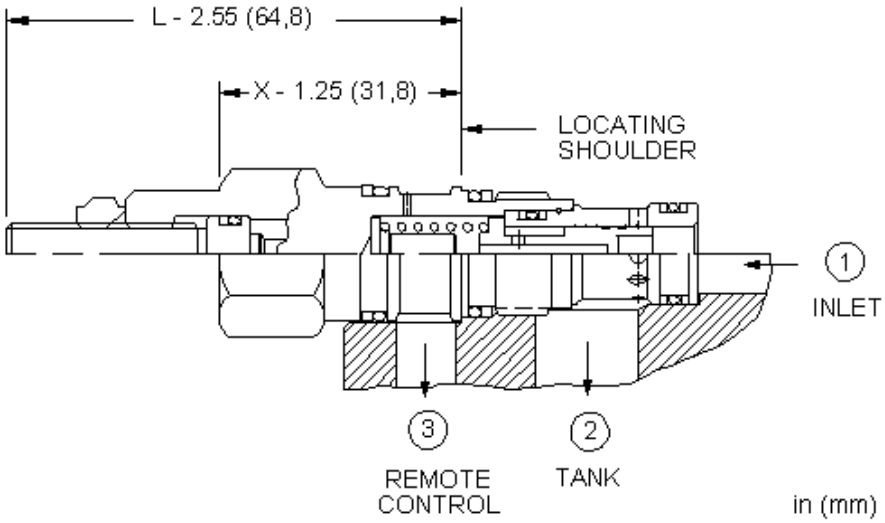
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated





Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

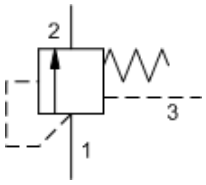
TECHNICAL DATA

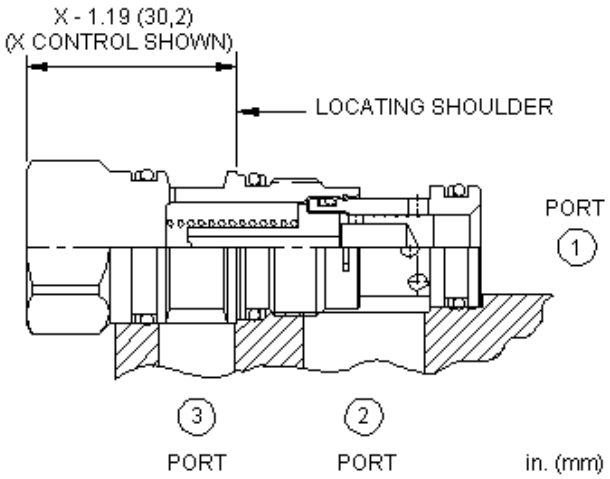
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: LRBCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		





Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

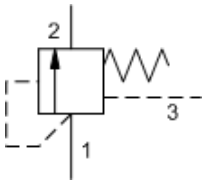
TECHNICAL DATA

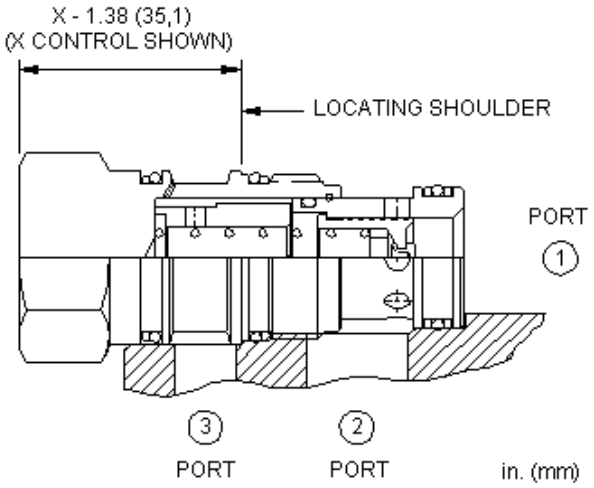
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LRDCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		**/LH** Mild Steel, Zinc-Nickel
	G 150 psi (10,5 bar)		





Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

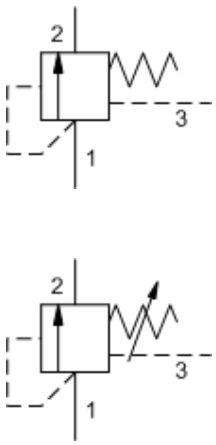
TECHNICAL DATA

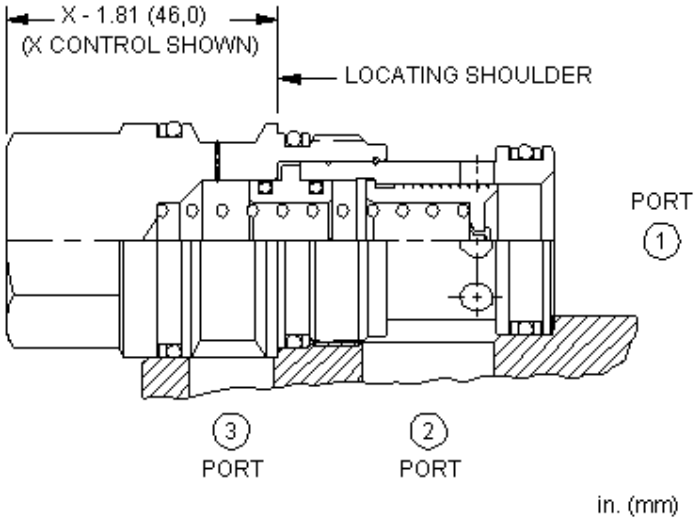
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LRFCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)	**V** Viton	**/LH** Mild Steel, Zinc-Nickel
	G 150 psi (10,5 bar)		





in. (mm)

Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

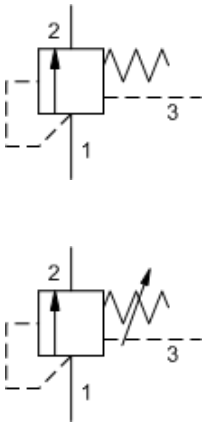
TECHNICAL DATA

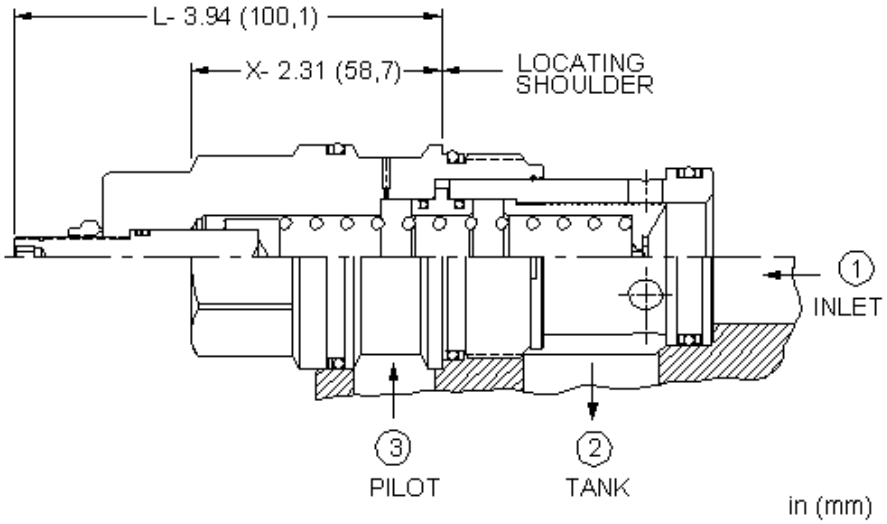
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LRHCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		
	G 150 psi (10,5 bar)		





Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

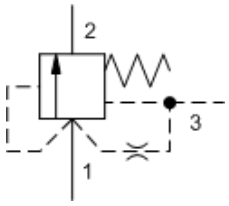
TECHNICAL DATA

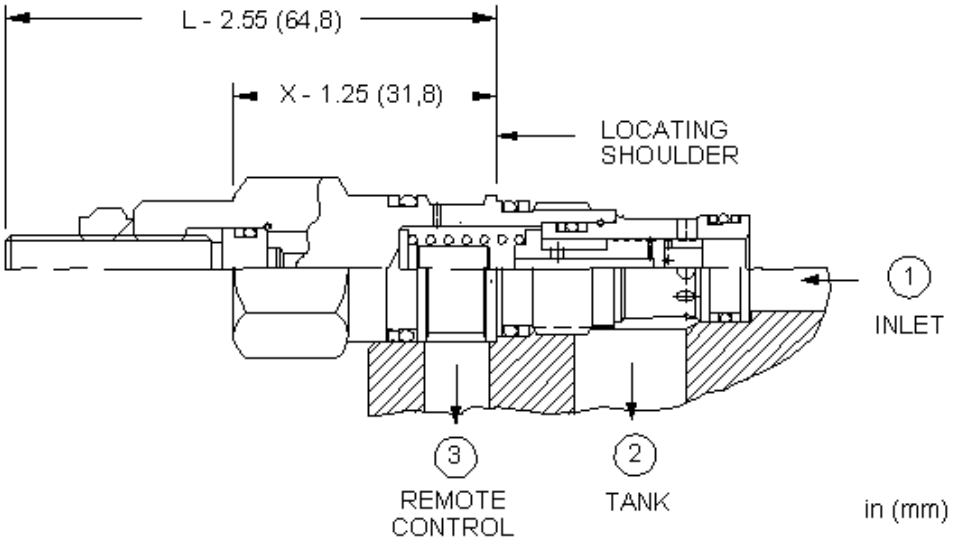
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LRJCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)	**V** Viton	
	G 150 psi (10,5 bar)		





Normally closed modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage relief valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

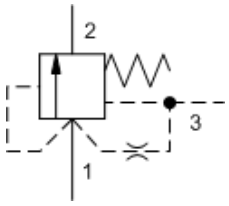
TECHNICAL DATA

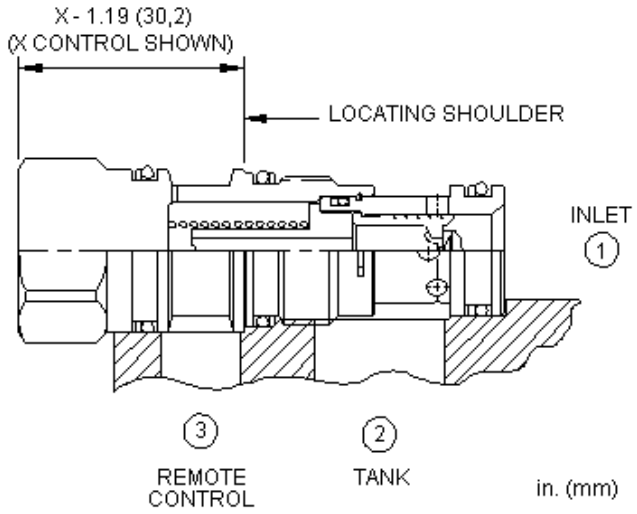
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: LRBALDN

CONTROL (L)	DIFFERENTIAL PRESSURE (D)	SEAL MATERIAL (N)
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**N** Buna-N
	F 100 psi (7 bar)	**V** Viton
	H 200 psi (14 bar)	





Normally closed modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage relief valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

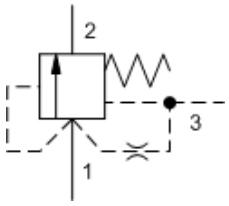
TECHNICAL DATA

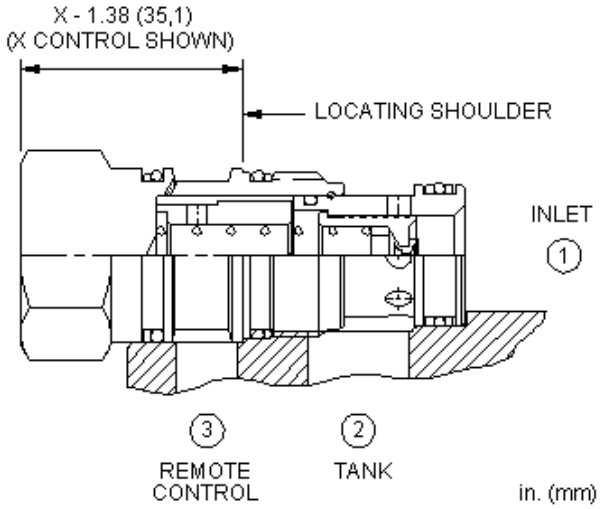
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Maximum Valve Leakage at 110 SUS (24 cSt)	15 cc/min.@70 bar
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LRDAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		





Normally closed modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage relief valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

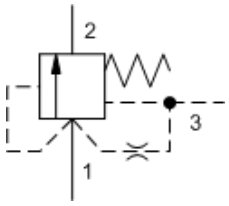
TECHNICAL DATA

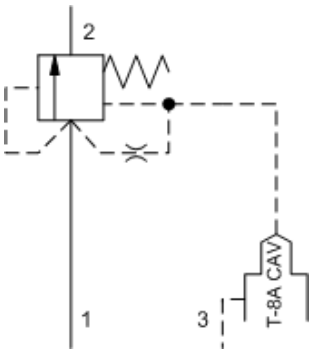
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

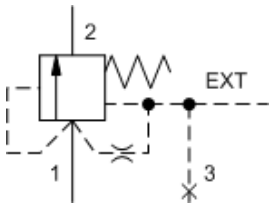
CONFIGURATION OPTIONS

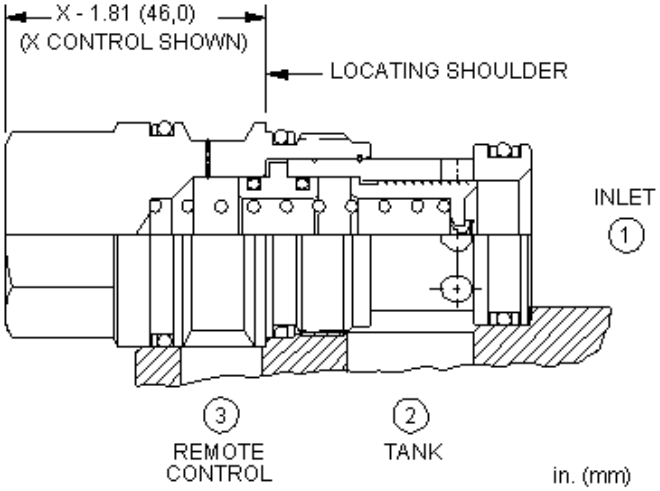
Model Code Example: LRFAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		
	G 150 psi (10,5 bar)		









Normally closed modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage relief valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

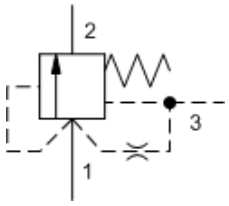
TECHNICAL DATA

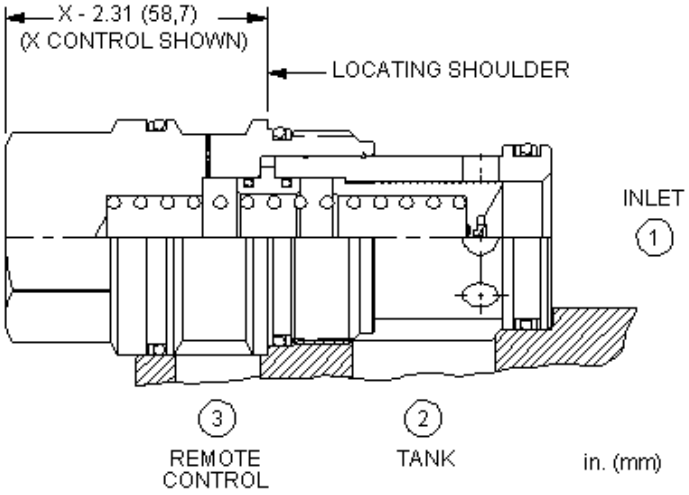
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,50 L/min.
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LRHAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
E External 4-SAE Port, Port 3 blocked	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
L Tuning Adjustment	**F** 100 psi (7 bar)		
	G 150 psi (10,5 bar)		





Normally closed modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage relief valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

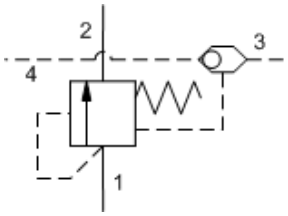
TECHNICAL DATA

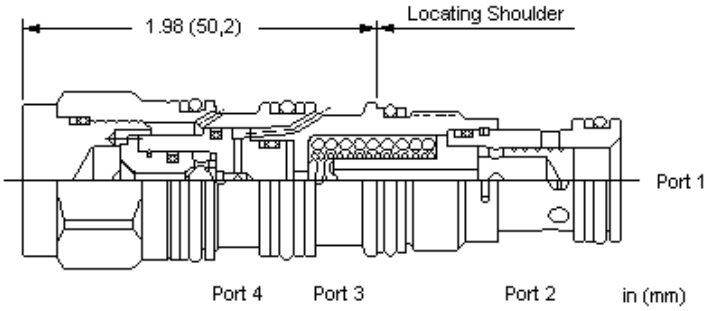
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,50 L/min.
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LRJAXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	A 12 psi	**V** Viton	**/AP** Stainless Steel, Passivated
	B 20 psi (1,5 bar)		
	C 30 psi (2 bar)		
	D 50 psi (3,5 bar)		





A normally closed modulating element, used as a bypass compensator, ensures a constant pressure drop across an external orifice to create a pressure compensated flow control. The resulting flow remains constant regardless of variations in upstream or downstream pressure.

A ball shuttle connects the after orifice signal from the higher of port 3 or 4 to the pilot area.

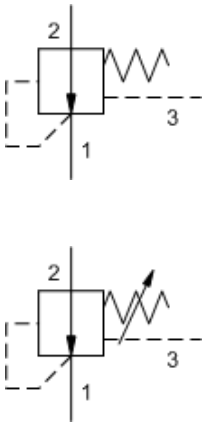
TECHNICAL DATA

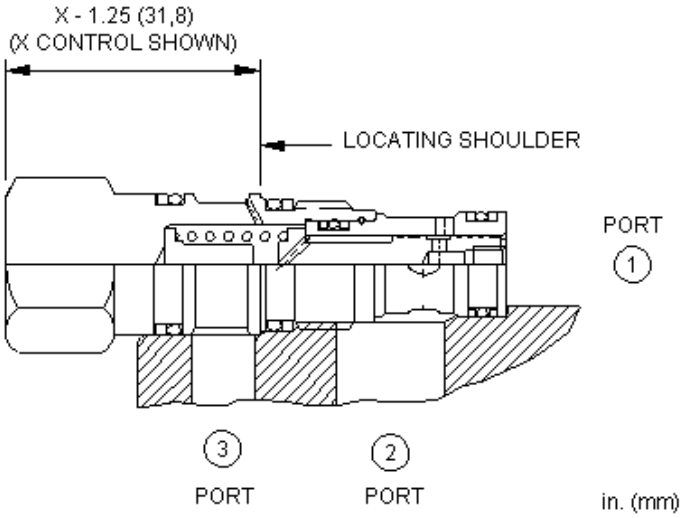
Nominal Compensating Pressure	14 bar
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: LRDSXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N
		V Buna-N





Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

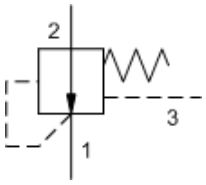
TECHNICAL DATA

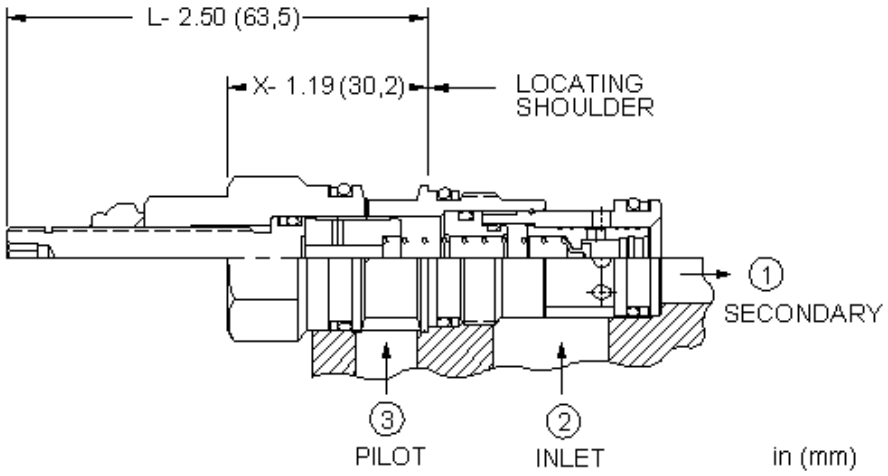
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: LPBCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton
	F 100 psi (7 bar)	





Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

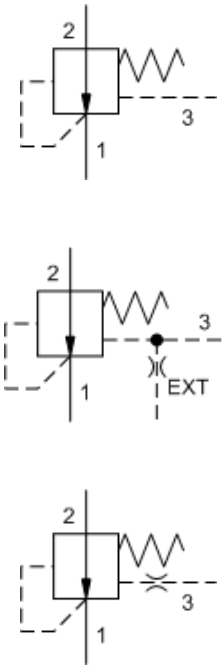
TECHNICAL DATA

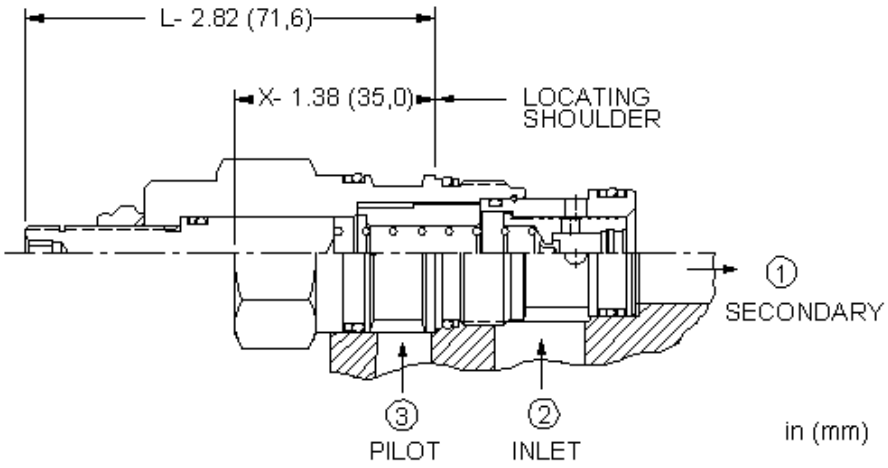
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LPDCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)	**V** Viton	**/LH** Mild Steel, Zinc-Nickel
	G 150 psi (10,5 bar)		





Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

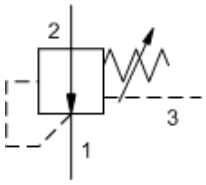
TECHNICAL DATA

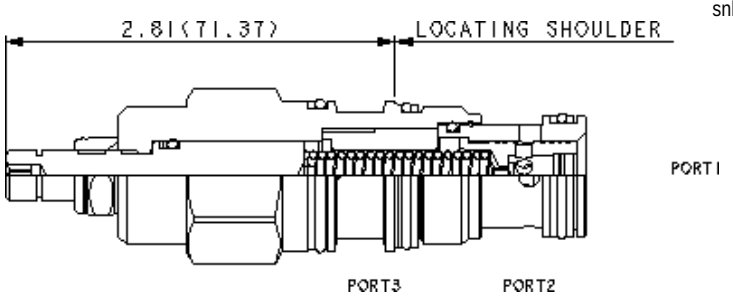
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LPFCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		**/LH** Mild Steel, Zinc-Nickel
	G 150 psi (10,5 bar)		





Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

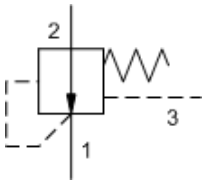
TECHNICAL DATA

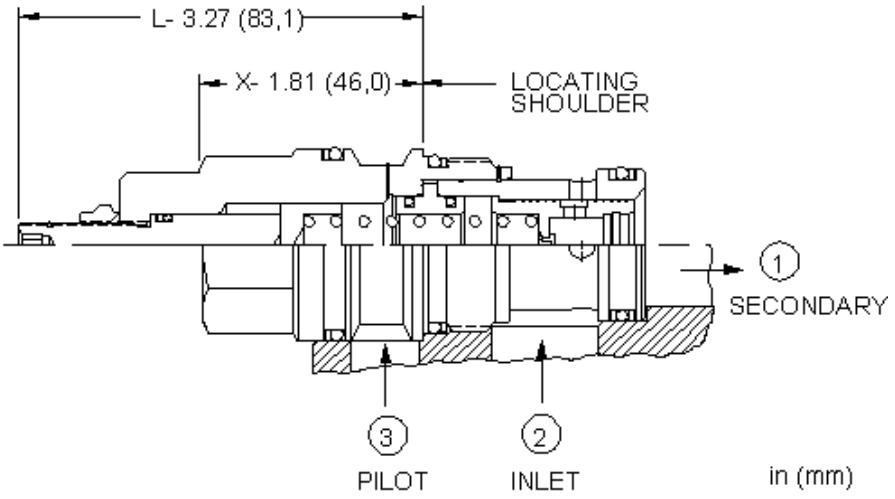
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LPFCLDN

DIFFERENTIAL PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
D 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
	V Viton	**/LH** Mild Steel, Zinc-Nickel





Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

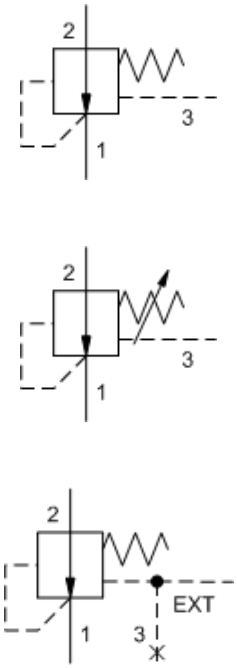
TECHNICAL DATA

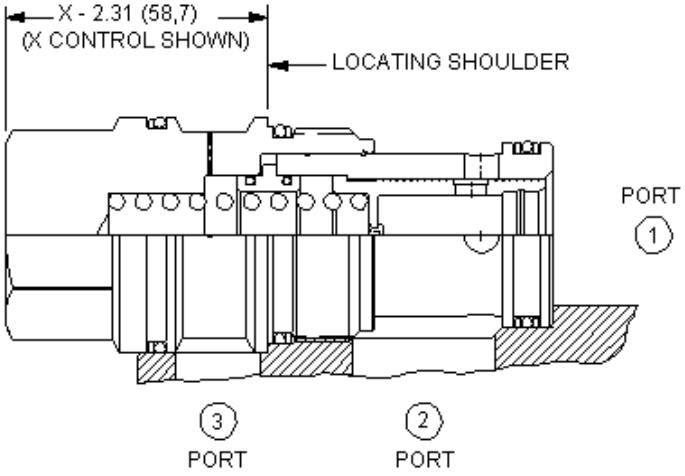
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LPHCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)	**V** Viton	**/LH** Mild Steel, Zinc-Nickel
	G 150 psi (10,5 bar)		





in. (mm)

Normally open modulating elements without an internal orifice act as a restrictive compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

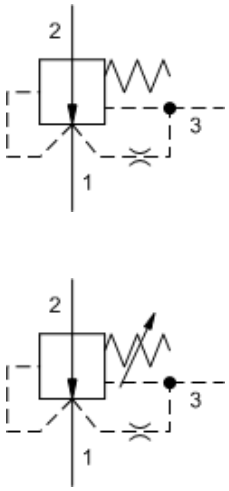
TECHNICAL DATA

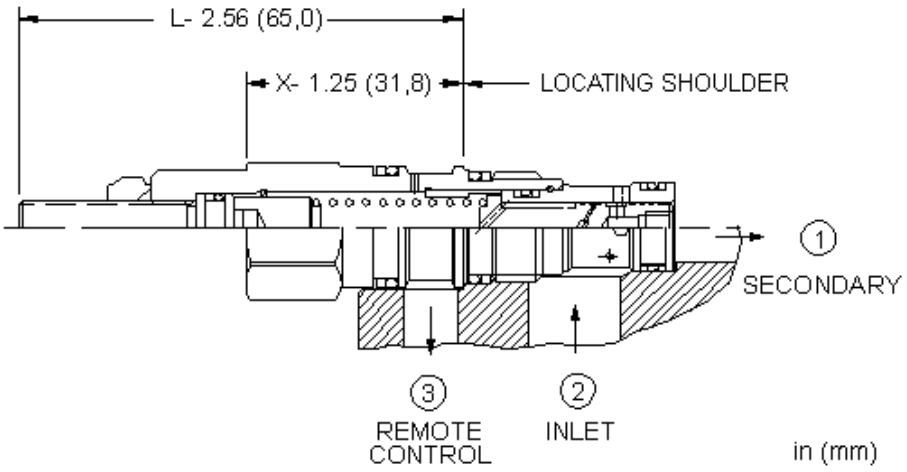
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: LPJCXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
P External 1/4 NPTF Pilot Port, Port 3 Blocked	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		
	G 150 psi (10,5 bar)		





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

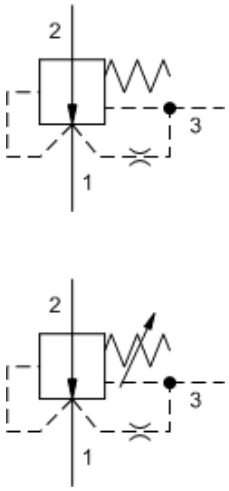
TECHNICAL DATA

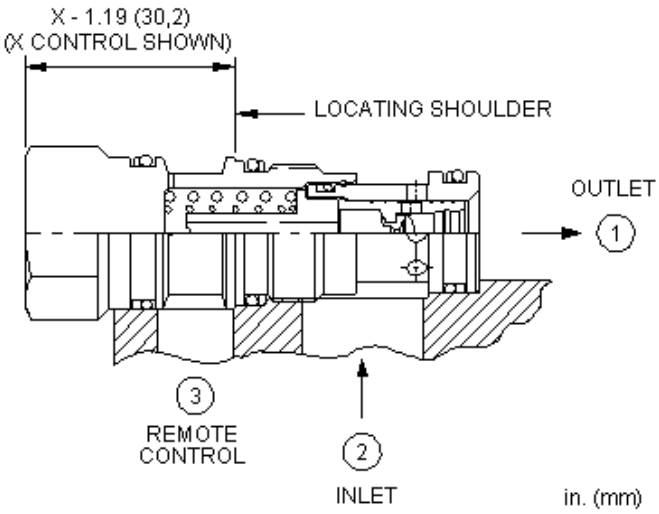
Maximum Operating Pressure	350 bar
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: LPBAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton
	F 100 psi (7 bar)	





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

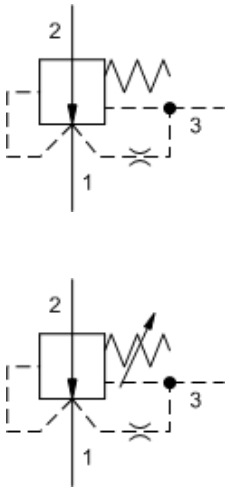
TECHNICAL DATA

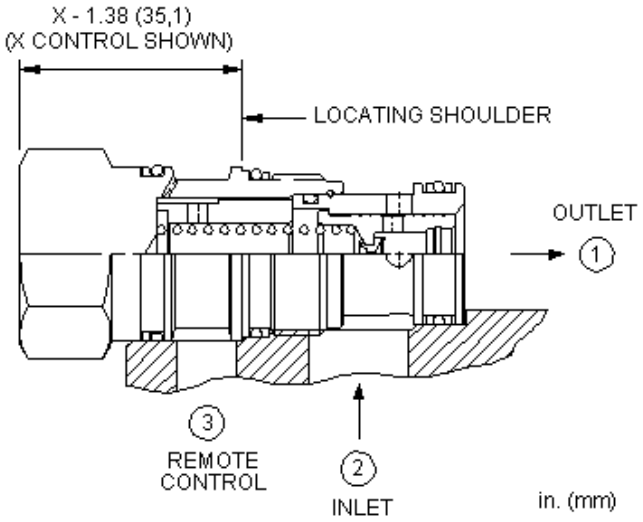
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: LPDAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

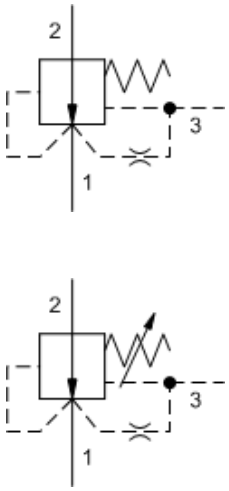
TECHNICAL DATA

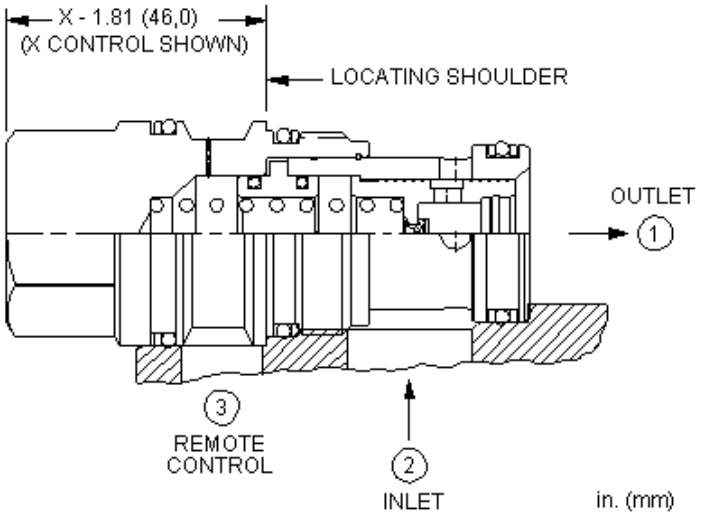
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Control Orifice Diameter	0,4 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LPFAXHN

CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

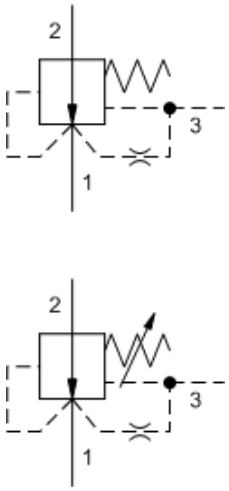
TECHNICAL DATA

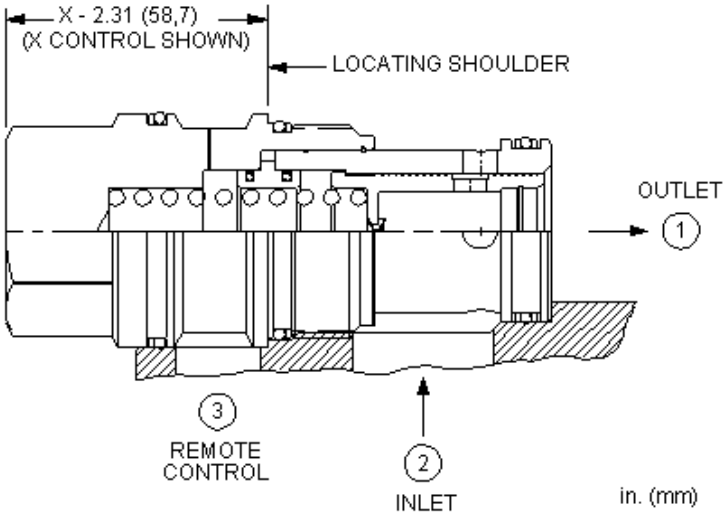
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,50 L/min.
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: LPHAXDN

CONTROL (X)	BIAS PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**D** 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**F** 100 psi (7 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	G 150 psi (10,5 bar)		
	H 200 psi (14 bar)		





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,50 L/min.
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

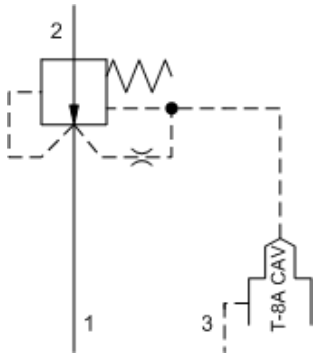
Model Code Example: LPJAXHN

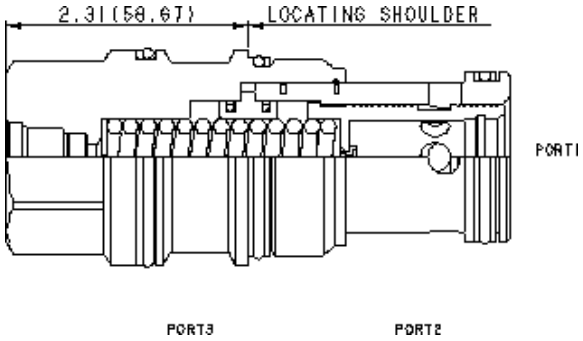
CONTROL (X)	BIAS PRESSURE (H)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N	Standard Material/Coating
L Tuning Adjustment	**D** 50 psi (3,5 bar)	**V** Viton	**/AP** Stainless Steel, Passivated
	F 100 psi (7 bar)		
	G 150 psi (10,5 bar)		

Normally open, modulating element with integral T-8A control cavity and pilot source from port 1

SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-19A

snhy.com/LPJA8





These normally open modulating elements with an internal orifice between port 1 and port 3 can be used as a main-stage reducing valve. The valve can be controlled remotely using a pilot relief or pilot solenoid valve.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,50 L/min.
Pilot Control Cavity	T-8A
Control Orifice Diameter	0,53 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

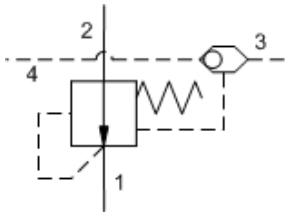
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

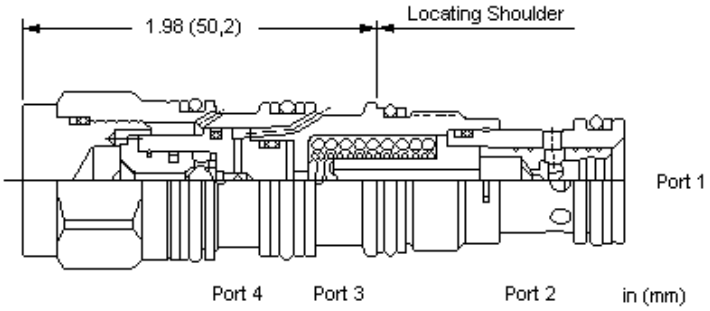
CONFIGURATION OPTIONS

Model Code Example: LPJA8DN

BIAS PRESSURE	(D)
D 50 psi (3,5 bar)	

SEAL MATERIAL	(N)
N Buna-N	
V Viton	





A normally open modulating element, used as a restrictive compensator, ensures a constant pressure drop across an external orifice to create a pressure compensated flow control. The resulting flow remains constant regardless of variations in upstream or downstream pressure.

A ball shuttle connects the after orifice signal from the higher of port 3 or 4 to the pilot area.

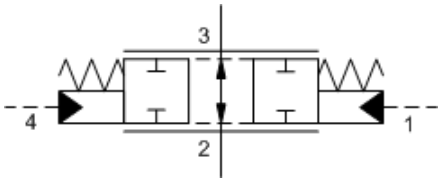
TECHNICAL DATA

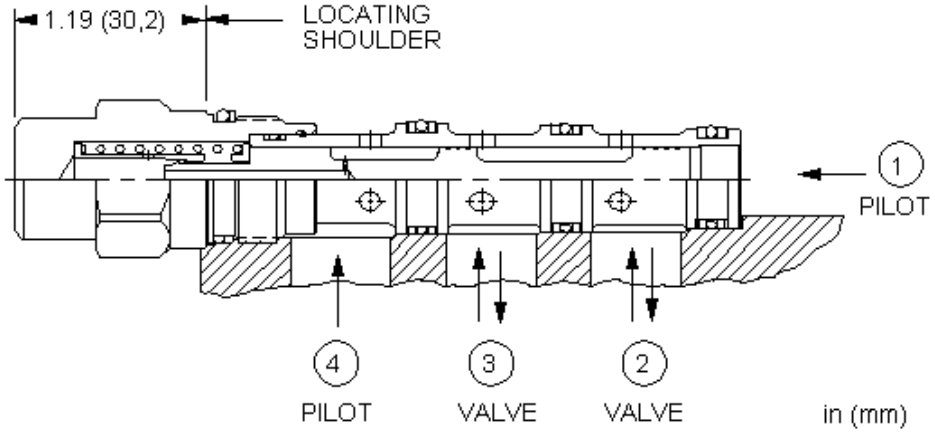
Nominal Compensating Pressure	14 bar
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: LPDSXHN

CONTROL (X)	DIFFERENTIAL PRESSURE (H)	SEAL MATERIAL (N)
X Not Adjustable	**H** 200 psi (14 bar)	**N** Buna-N
		V Viton





These bi-directional, normally open, modulating elements used with an external orifice, create a bi-directional, pressure compensated flow control.

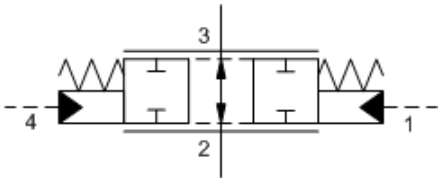
TECHNICAL DATA

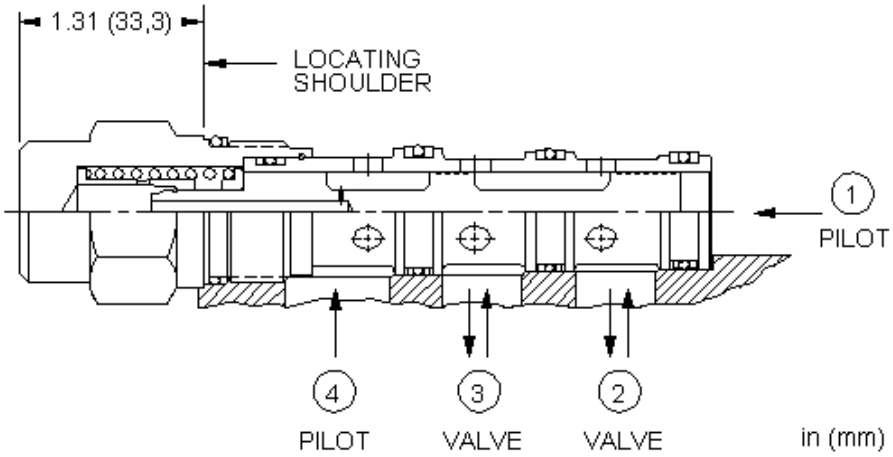
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990031007
Seal kit - Cartridge	EPDM: 990031014
Seal kit - Cartridge	Polyurethane: 990031002
Seal kit - Cartridge	Viton: 990031006

CONFIGURATION OPTIONS

Model Code Example: LHDTXFN

CONTROL (X)	NOMINAL CONTROL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	D 50 psi (3,5 bar)	**E** EPDM
	E 75 psi (5 bar)	**V** Viton





These bi-directional, normally open, modulating elements used with an external orifice, create a bi-directional, pressure compensated flow control.

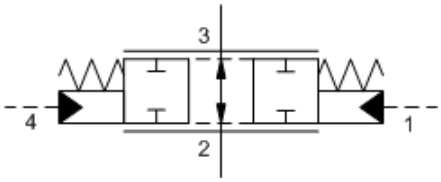
TECHNICAL DATA

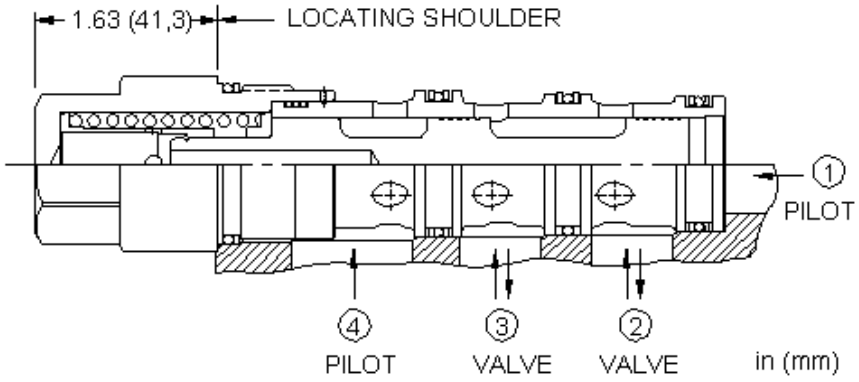
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990032007
Seal kit - Cartridge	EPDM: 990032014
Seal kit - Cartridge	Polyurethane: 990032002
Seal kit - Cartridge	Viton: 990032006

CONFIGURATION OPTIONS

Model Code Example: LHFTXFN

CONTROL (X)	NOMINAL CONTROL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	D 50 psi (3,5 bar)	**E** EPDM
	E 75 psi (5 bar)	**V** Viton





These bi-directional, normally open, modulating elements used with an external orifice, create a bi-directional, pressure compensated flow control.

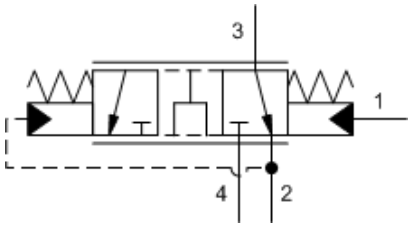
TECHNICAL DATA

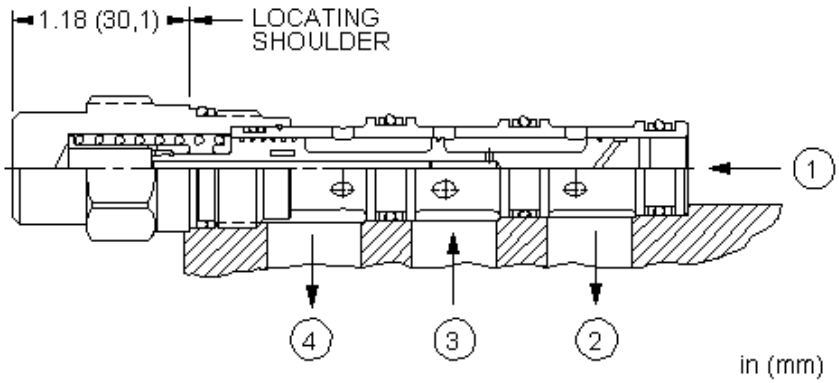
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990033007
Seal kit - Cartridge	EPDM: 990033014
Seal kit - Cartridge	Polyurethane: 990033002
Seal kit - Cartridge	Viton: 990033006

CONFIGURATION OPTIONS

Model Code Example: LHHTXFN

CONTROL (X)	DIFFERENTIAL PRESSURE (F)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N	Standard Material/Coating
	D 50 psi (3,5 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	E 75 psi (5 bar)	**V** Viton	





Bypass/restrictive modulating elements, when combined with an external orifice, create a bypass/restrictive flow control. Input flow (port 3) is directed to the priority or control flow at port 2. Once the priority requirements are met, excess flow is bypassed out port 4. The after-orifice signal is connected to port 1. The before-orifice design allows both pressure and flow to be controlled on the priority side of the circuit regardless of pressure in the bypass circuit. These valves work equally well in either closed or open center systems. Their main use is to allow after-market accessories to be driven off the host machine's hydraulic system without adding an additional pump.

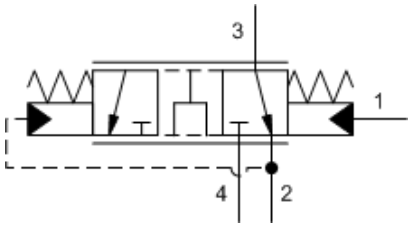
TECHNICAL DATA

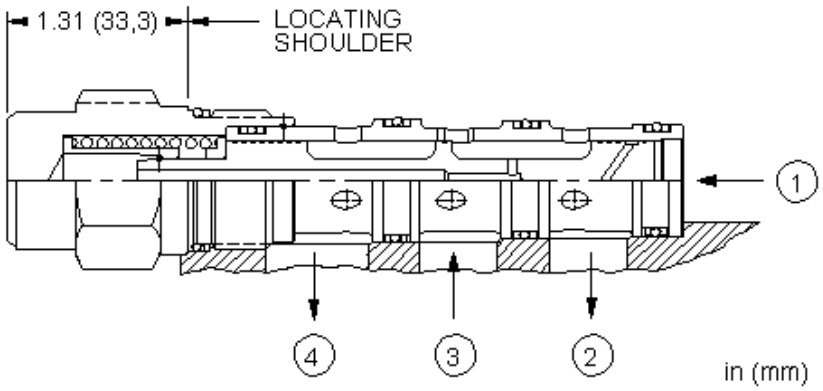
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990031007
Seal kit - Cartridge	Polyurethane: 990031002
Seal kit - Cartridge	Viton: 990031006

CONFIGURATION OPTIONS

Model Code Example: LHDAXFN

CONTROL (X)	DIFFERENTIAL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	E 75 psi (5 bar)	**E** EPDM
		V Viton





Bypass/restrictive modulating elements, when combined with an external orifice, create a bypass/restrictive flow control. Input flow (port 3) is directed to the priority or control flow at port 2. Once the priority requirements are met, excess flow is bypassed out port 4. The after-orifice signal is connected to port 1. The before-orifice design allows both pressure and flow to be controlled on the priority side of the circuit regardless of pressure in the bypass circuit. These valves work equally well in either closed or open center systems. Their main use is to allow after-market accessories to be driven off the host machine's hydraulic system without adding an additional pump.

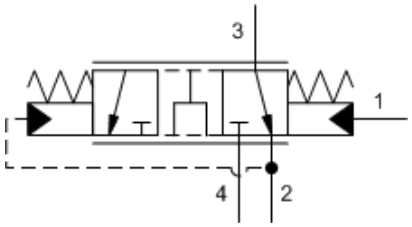
TECHNICAL DATA

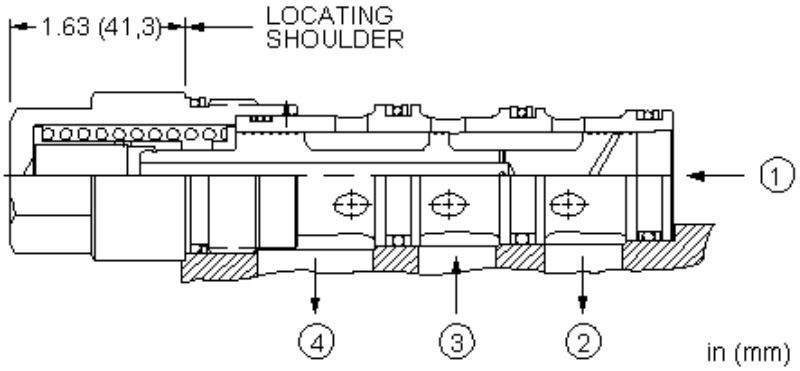
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990032007
Seal kit - Cartridge	EPDM: 990032014
Seal kit - Cartridge	Polyurethane: 990032002
Seal kit - Cartridge	Viton: 990032006

CONFIGURATION OPTIONS

Model Code Example: LHFAXFN

CONTROL (X)	DIFFERENTIAL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	E 75 psi (5 bar)	**E** EPDM
		V Viton





Bypass/restrictive modulating elements, when combined with an external orifice, create a bypass/restrictive flow control. Input flow (port 3) is directed to the priority or control flow at port 2. Once the priority requirements are met, excess flow is bypassed out port 4. The after-orifice signal is connected to port 1. The before-orifice design allows both pressure and flow to be controlled on the priority side of the circuit regardless of pressure in the bypass circuit. These valves work equally well in either closed or open center systems. Their main use is to allow after-market accessories to be driven off the host machine's hydraulic system without adding an additional pump.

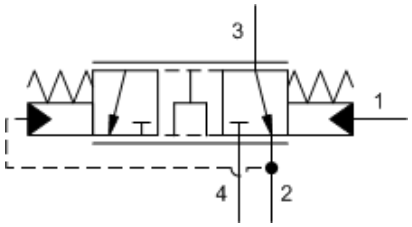
TECHNICAL DATA

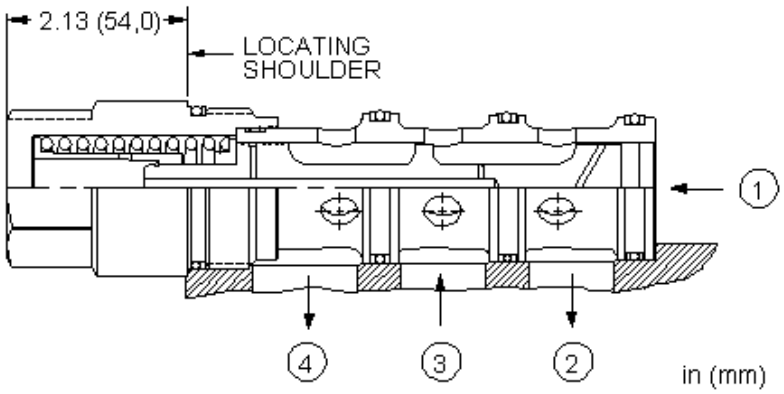
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990033007
Seal kit - Cartridge	EPDM: 990033014
Seal kit - Cartridge	Polyurethane: 990033002
Seal kit - Cartridge	Viton: 990033006

CONFIGURATION OPTIONS

Model Code Example: LHHAXFN

CONTROL (X)	DIFFERENTIAL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	E 75 psi (5 bar)	**E** EPDM
		V Viton





Bypass/restrictive modulating elements, when combined with an external orifice, create a bypass/restrictive flow control. Input flow (port 3) is directed to the priority or control flow at port 2. Once the priority requirements are met, excess flow is bypassed out port 4. The after-orifice signal is connected to port 1. The before-orifice design allows both pressure and flow to be controlled on the priority side of the circuit regardless of pressure in the bypass circuit. These valves work equally well in either closed or open center systems. Their main use is to allow after-market accessories to be driven off the host machine's hydraulic system without adding an additional pump.

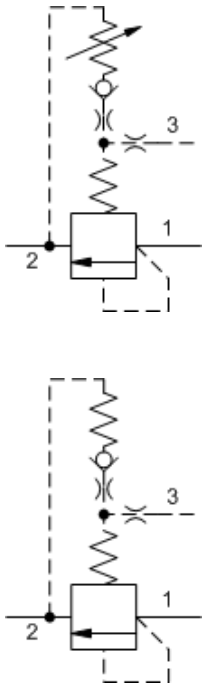
TECHNICAL DATA

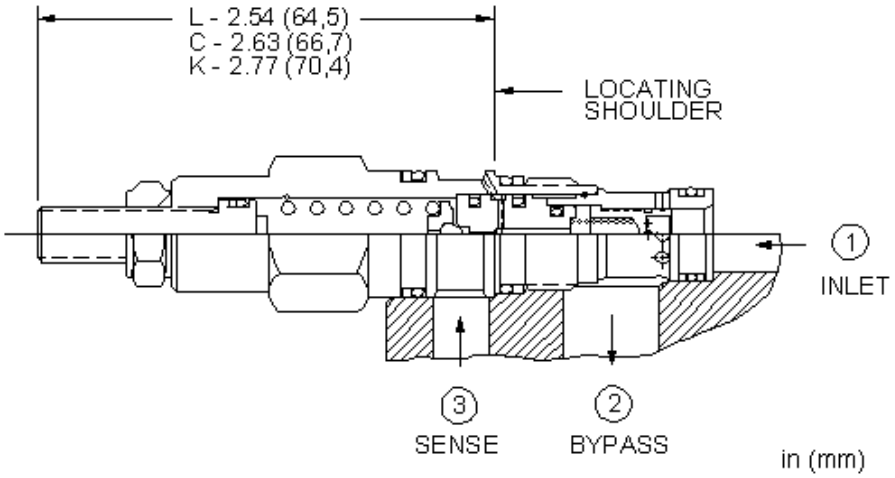
Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990034007
Seal kit - Cartridge	EPDM: 990034014
Seal kit - Cartridge	Polyurethane: 990034002
Seal kit - Cartridge	Viton: 990034006

CONFIGURATION OPTIONS

Model Code Example: LHJAXFN

CONTROL (X)	DIFFERENTIAL PRESSURE (F)	SEAL MATERIAL (N)
X Not Adjustable	**F** 100 psi (7 bar)	**N** Buna-N
	E 75 psi (5 bar)	**E** EPDM
		V Viton





Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: RVBBLAN

CONTROL (L)

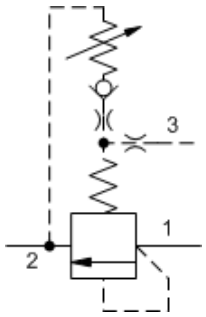
- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

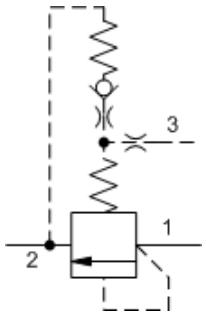
ADJUSTMENT RANGE (A)

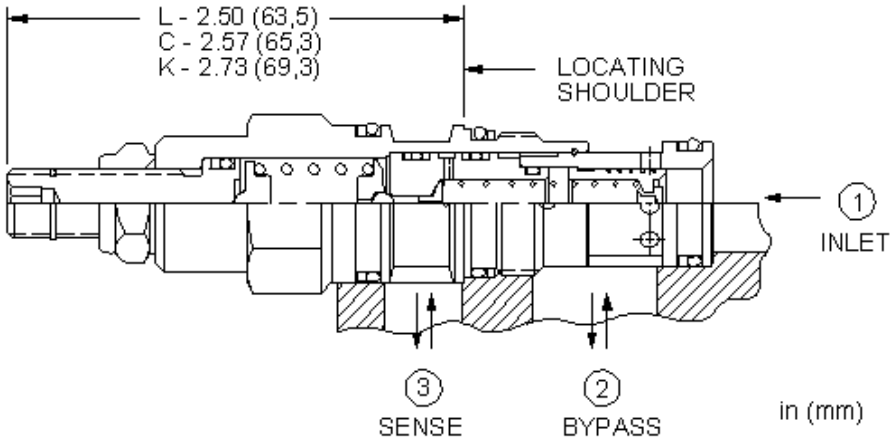
- **A** 75 - 3000 psi (5 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 75 - 1500 psi (5 - 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 75 - 6000 psi (5 - 420 bar), 1000 psi (70 bar) Standard Setting
- **N** 75 - 800 psi (5 - 55 bar), 400 psi (28 bar) Standard Setting
- **Q** 75 - 400 psi (5 - 28 bar), 200 psi (14 bar) Standard Setting
- **W** 75 - 4500 psi (5 - 315 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton







Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: RVCBLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

ADJUSTMENT RANGE (A)

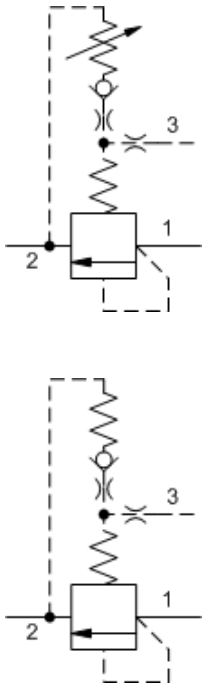
- **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting

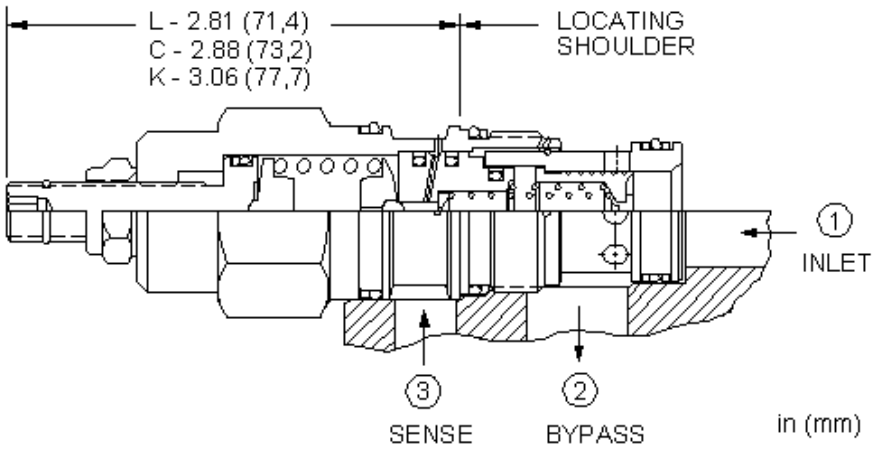
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated
- **/LH** Mild Steel, Zinc-Nickel





Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	50 cc/min.@70 bar
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: RVEBLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob
- **W** Hex Wrench Adjustment
- **Y** Tri-Grip Handknob

ADJUSTMENT RANGE (A)

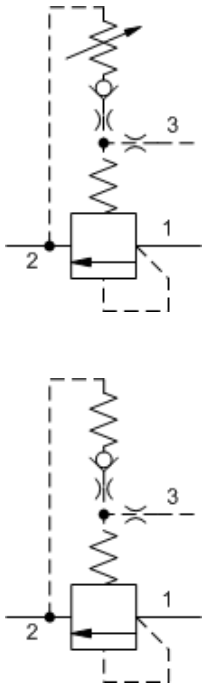
- **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 100 - 6000 psi (7 - 420 bar), 1000 psi (70 bar) Standard Setting
- **W** 100 - 4500 psi (7 - 315 bar), 1000 psi (70 bar) Standard Setting

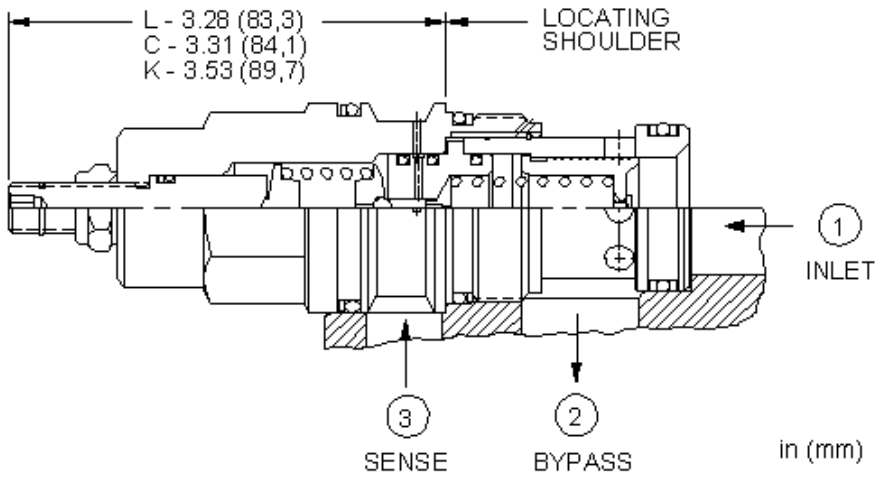
SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated





Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: RVGBLAN

CONTROL (L)

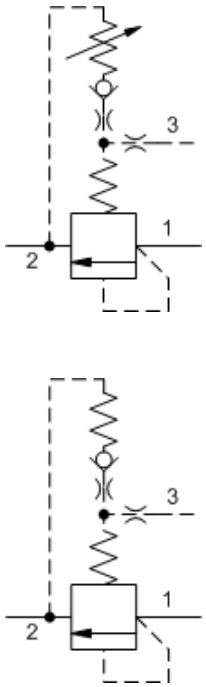
- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

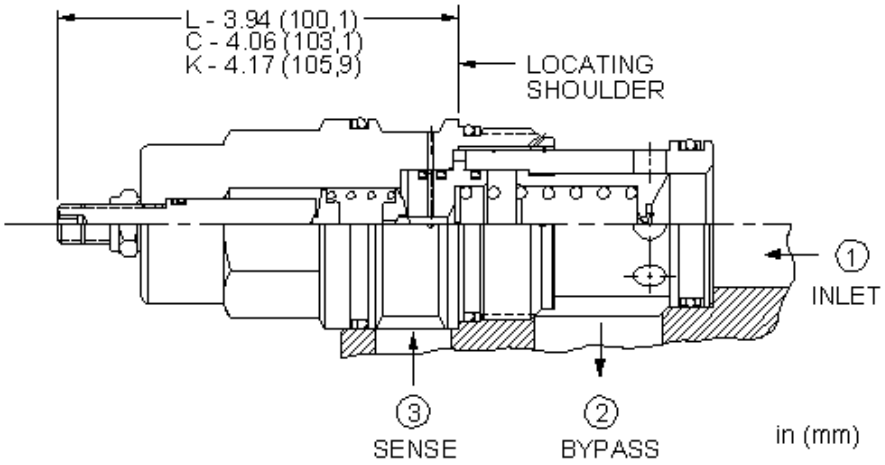
OPERATING RANGE (A)

- **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 150 - 1500 psi (10,5 - 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton





Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	80 cc/min.@70 bar
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: RVIBLAN

CONTROL (L)

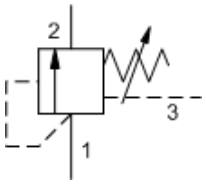
- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob

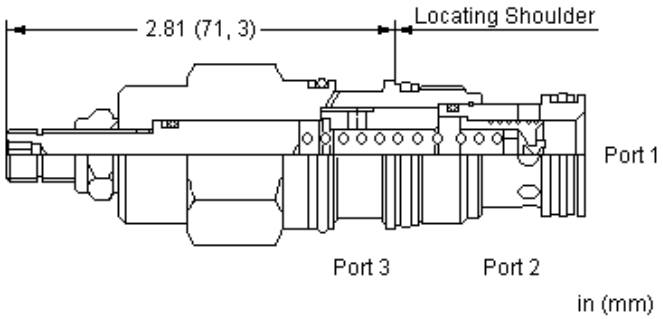
ADJUSTMENT RANGE (A)

- **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **E** EPDM
- **V** Viton





Normally closed modulating elements without an internal orifice act as a bypass compensator to maintain a constant pressure drop across an orifice, regardless of variations in upstream or downstream pressure.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: LRFCLDN

DIFFERENTIAL PRESSURE (D)

- **D** 50 psi (3,5 bar)
- **F** 100 psi (7 bar)

SEAL MATERIAL (N)

- **N** Buna-N
- **E** EPDM
- **V** Viton

MATERIAL/COATING

- Standard Material/Coating
- **/AP** Stainless Steel, Passivated
- **/LH** Mild Steel, Zinc-Nickel

sun hydraulics® CORPORATION

Corporate Headquarters
1500 West University Parkway
Sarasota, FL 34243 U.S.A.
Phone: 941.362.1200
suninfo@sunhydraulics.com

ONE RELIABLE SOURCE
ENDLESS SOLUTIONS

Sun Hydraulics Limited
Wheler Road
Coventry CV3 4LA
England
Ph: +44-2476-217-400
sales@sunuk.com

Sun Hydraulik GmbH
Brüsseler Allee 2
D-41812 Erkelenz
Germany
Ph: +49-2431-8091-0
sales@sunhydraulik.de

Sun Hydraulics Corporation
55 rue Fragonard
Résidence Rambouillet - Appt A-42
33520 Bruges
France
Ph: +33-673063371
info@sunfr.com

Sun Hydraulics Korea Corp.
92 Hogupo-ro
Namdong-gu
Incheon 405-818
Korea
Ph: +82-32-813-1350
sales@sunhydraulics.co.kr

Sun Hydraulics China Co. Ltd
Hong Kong New World Tower
47th Floor
300, Huaihai Zhong Road
Shanghai 200021
P.R.China
Ph: +86-21-5116-2862
sunchinainfo@sunhydraulics.com

Sun Hydraulics (India)
No. 48 'Regent Prime'
Unit No. 306, Level 3
Whitefield Main Road,
Whitefield, Bangalore - 560 066
India
Ph: +0091-80-28456325
sunindiainfo@sunhydraulics.com

Rev. 11Feb15 |