

HDM11P Series

Mono-Block Directional Control Valve



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Adjustable Direct Acting - Relief Valve RV

Monobloc body

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General Specifications

Technical specification	Metering unit system	
Max flow rate	l/min U.S.G.P.M.	45 12
Max operating pressure	bar PSI	400 5700
Max back pressure	bar PSI	30 420
Oil temperature	° C ° F	-10 to 80 14 to 180
Oil viscosity	° E cSt	2.4 to 10 16 to 75
Oil filtration	μ	≤ 30

Spool leakage at 100 bar (1450 PSI), Temp. 50° C (120° F), viscosity 27 cSt:

Maximum	cm ³ /min Cu. In./min	12 0.732
Middle	cm ³ /min Cu. In./min	6 0.366

Lower values on demand (to be agreed with our Sales Dpt.)

Number of spools	2 to 6
Adjustable direct operated relief valve (tamper-proof seal available on request)	RV
Single load hold check valve	LC

Weight

Technical specification	Metering unit systems	
HDM11P/2	kg LBS	4 8.82
HDM11P/3	kg LBS	5 11.03
HDM11P/4	kg LBS	6 13.21
HDM11P/5	kg LBS	7 15.41
HDM11P/6	kg LBS	8 17.61

Material specification:

Body: High strength cast-iron.
Spool: Hardened steel and chrome plated
Seals: Buna "N".

Standard features:

- 1) Parallel circuit
- 2) Balanced interchangeable spools (provides minimum leakage, smooth operation)
- 3) Wide selections inlets, work ports, and outlets threaded ports.
- 4) Negative overlapping of the spool.

Optional features available:

- 1) Open or closed centre positions, 3 or 4 way operations, 3 or 4 position (float position), full open centre (motoring spool) and other spool options.
- 2) Carry over.
- 3) Complete lever assembly
- 4) Wide range of positioners

Symbols:

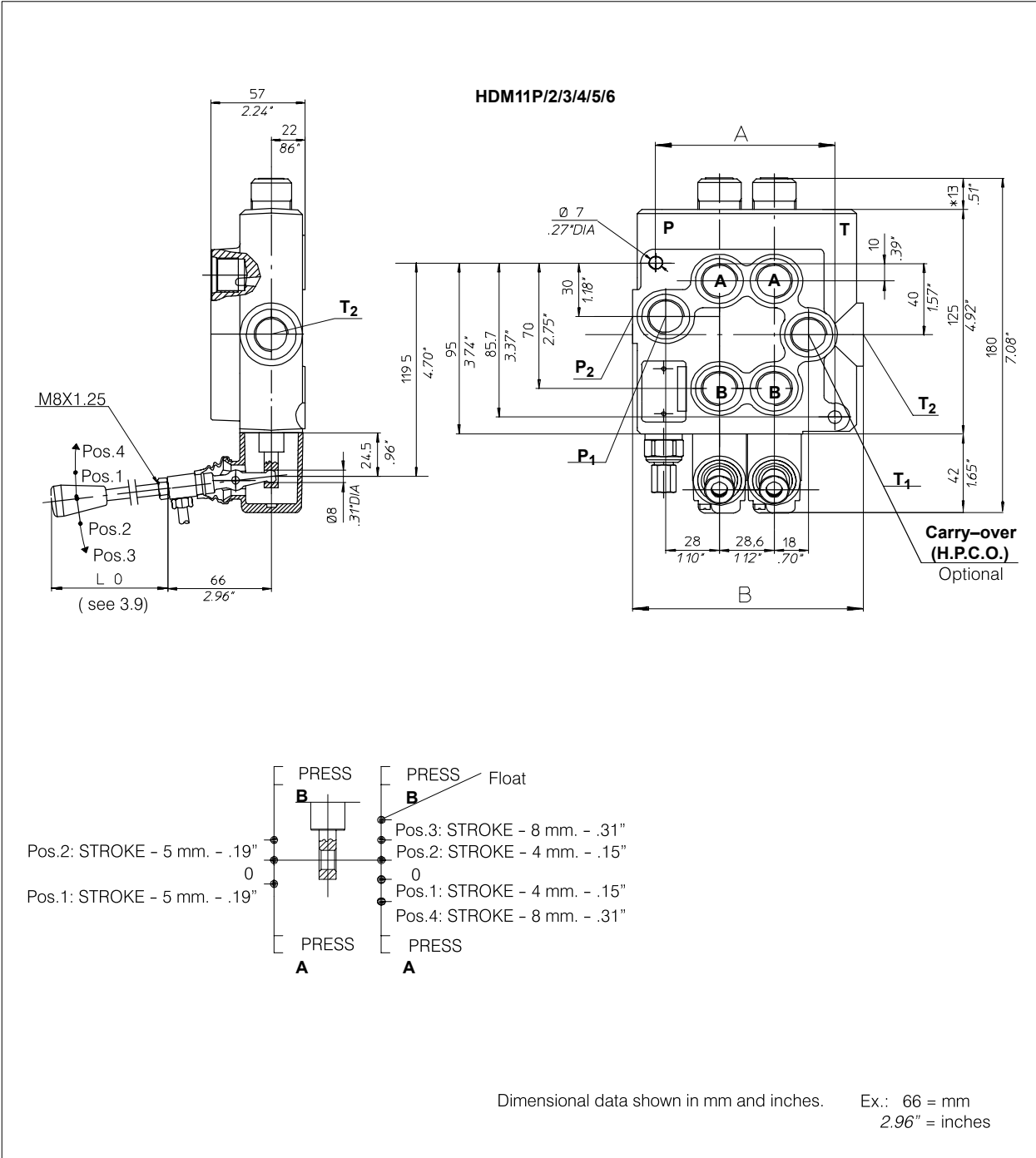
P: inlet port
T: outlet port
A/B: work ports
H.P.C.O.: carry-over
RV: relief valve
P₁T₁: top inlet and outlet ports
P₂: side inlet
T₂: side outlet
3.1.0.2: spool position
P: pressure line
T: exhaust line
E: centre line (by pass).

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Dimensional Data



N. of sections	HDM11P/2	HDM11P/3	HDM11P/4	HDM11P/5	HDM11P/6
Dimension A	93.6	122.2	150.8	179.4	208
	3.68"	4.81"	5.93"	7.06"	8.18"
Dimension B	128.6	157.2	185.8	214.4	243
	5.06	6.19"	7.31"	8.44"	9.56"

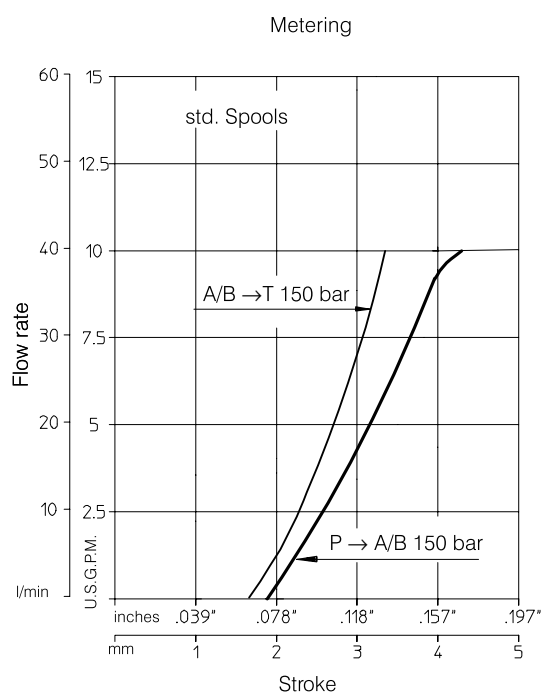
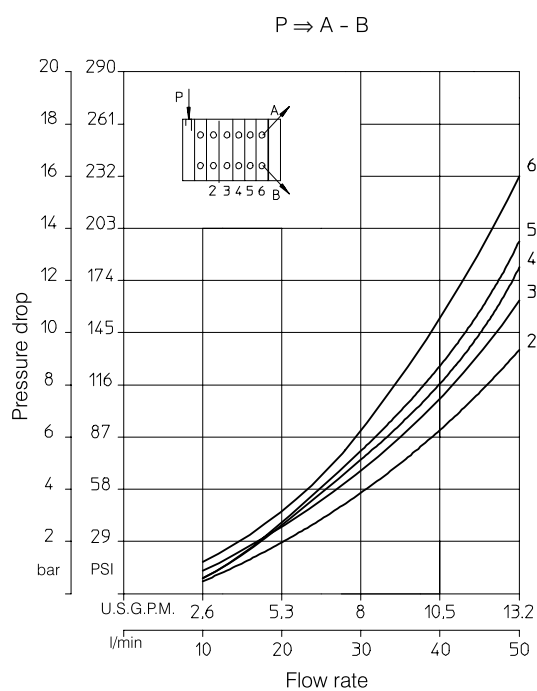
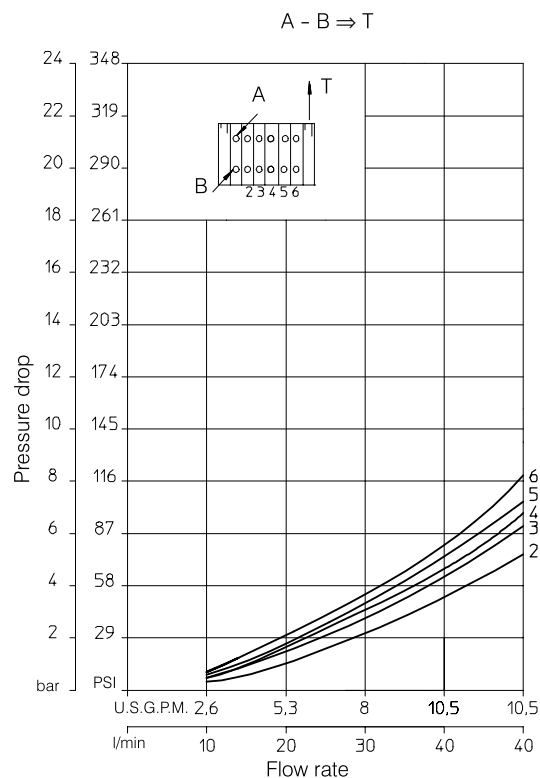
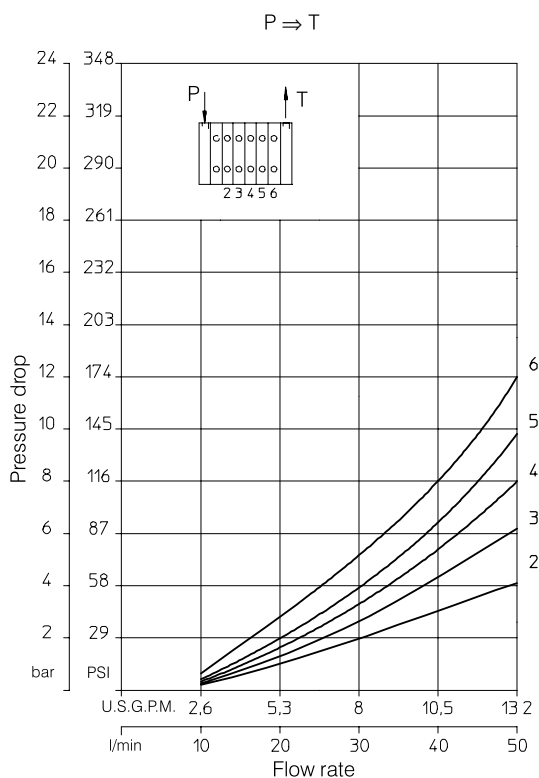
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Performance curves

Oil: Shell Tellus T37
Temperature: 50° C (120° F)
Viscosity: 27 cSt

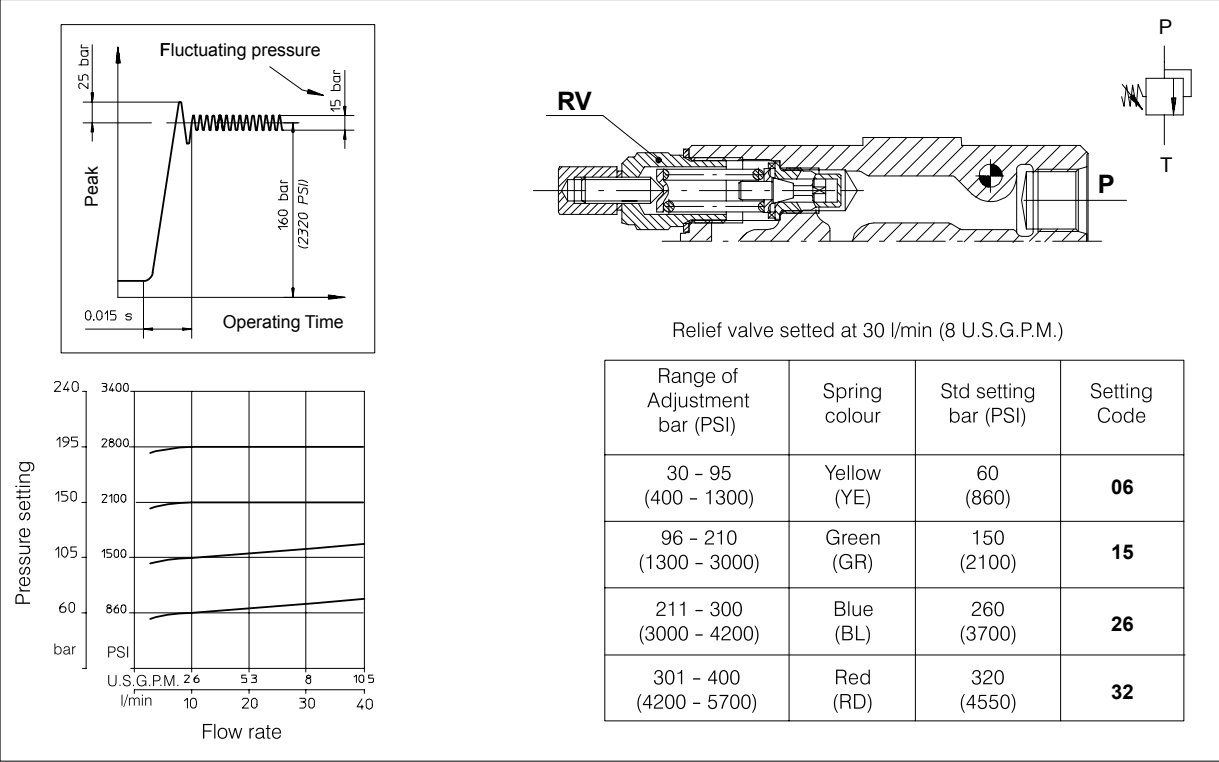


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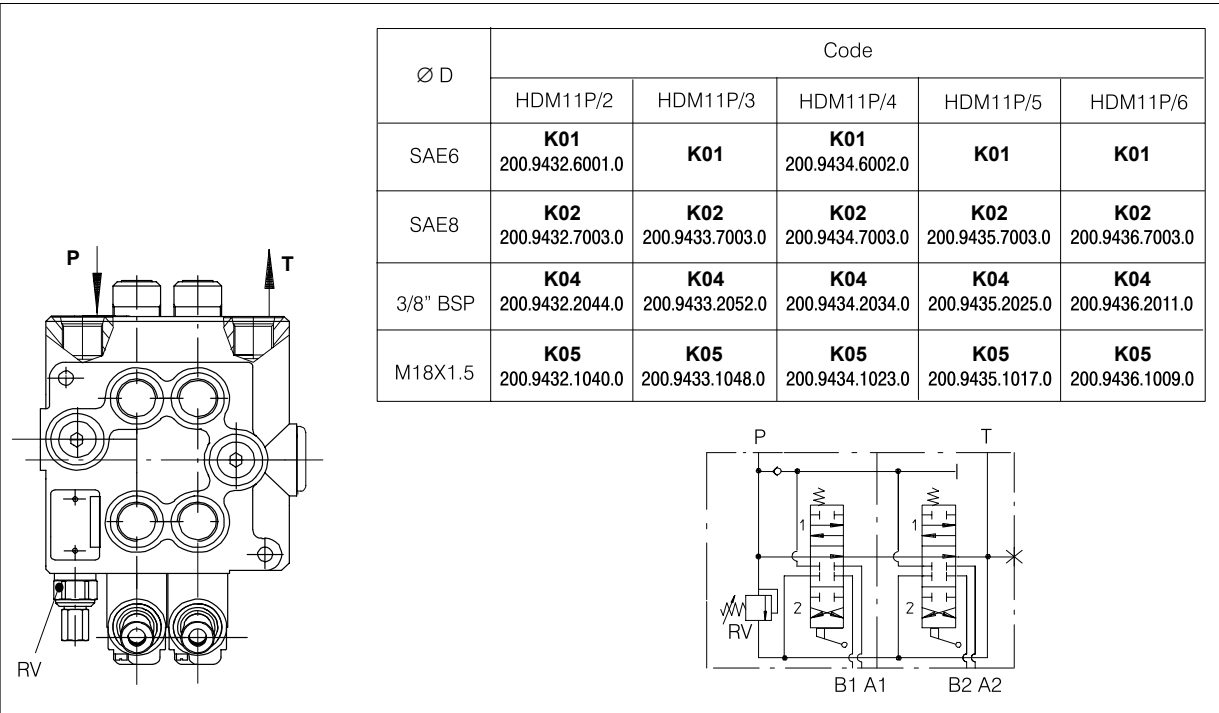


Adjustable direct acting Relief Valve RV



Monobloc body

Open center with P – T – RV (Standard)



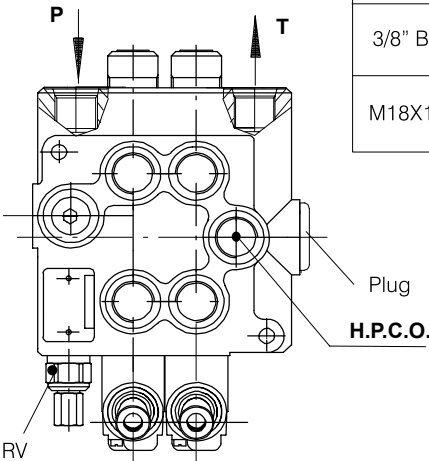
Note: Body codes consist of seals, plugs, check valve, but relief valve -RV- is not included.
For availability of -K- bodies without ordering code please contact our Sales Department.

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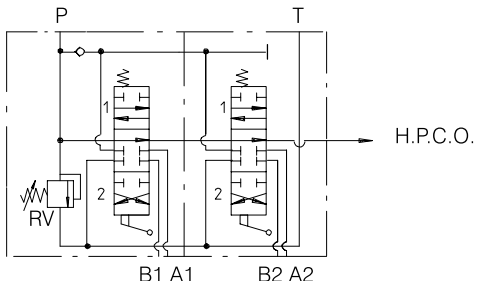
Mono-Block Directional Control Valve



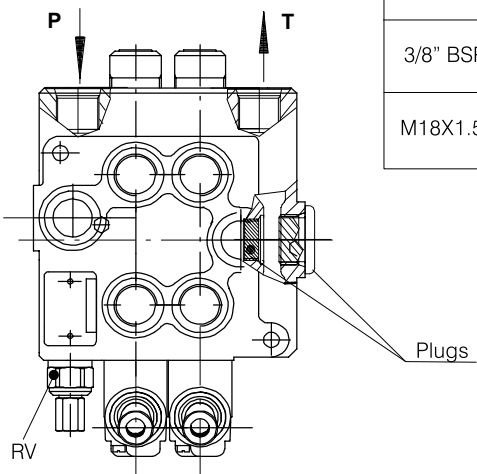
Power beyond with P – T – RV – H.P.C.O.



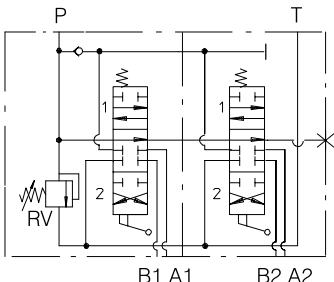
Ø D	Code				
	HDM11P/2	HDM11P/3	HDM11P/4	HDM11P/5	HDM11P/6
SAE6	K11 200.9432.6002.0	K11	K11 200.9434.6003.0	K11	K11
SAE8	K12 200.9432.7004.0	K12 200.9433.7004.0	K12 200.9434.7004.0	K12 200.9435.7004.0	K12 200.9436.7004.0
3/8" BSP	K14 200.9432.2045.0	K14 200.9433.2053.0	K14 200.9434.2035.0	K14 200.9435.2026.0	K14 200.9436.2012.0
M18X1.5	K15 200.9432.1041.0	K15 200.9433.1049.0	K15 200.9434.1024.0	K15 200.9435.1018.0	K15 200.9436.1010.0



Closed center with P – T – RV



Ø D	Code				
	HDM11P/2	HDM11P/3	HDM11P/4	HDM11P/5	HDM11P/6
SAE6	K21 200.9432.6003.0	K21	K21 200.9434.6004.0	K21	K21
SAE8	K22 200.9432.7005.0	K22 200.9433.7005.0	K22 200.9434.7005.0	K22 200.9435.7005.0	K22 200.9436.7005.0
3/8" BSP	K24 200.9432.2043.0	K24 200.9433.2051.0	K24 200.9434.2033.0	K24 200.9435.2024.0	K24 200.9436.2013.0
M18X1.5	K25 200.9432.1042.0	K25 200.9433.1050.0	K25 200.9434.1025.0	K25 200.9435.1019.0	K25 200.9436.1011.0



Note: Body codes consist of seals, plugs, check valve, but relief valve -RV- is not included.

For availability of -K- bodies without ordering code please contact our Sales Department.

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Spool chart

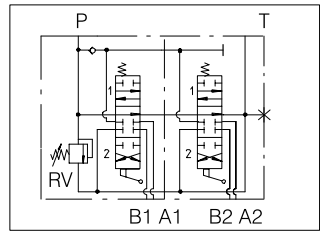
Type	Spool scheme	Spool features			
A		4 way - 3 position A/B: blocked E: open by pass	Z		4 way - 4 position 4 th floating position
AS		High metering spool (max flow suggested 15 l/min.)	* WW		4 way - 4 position 4 th floating position
B		4 way - 3 position A/B: blocked E: closed	R**		4 way - 3 position with regenerative spool in 2 nd position
C		4 way - 3 position A/B to tank in neutral E: open by pass	DP		4 way - 3 position A/B: blocked B: blocked E: open by pass
G		3 way - 3 position B: blocked E: open by pass	LP		4 way - 3 position A: float B: blocked E: open by pass
S		3 way - 3 position A: blocked E: open by pass			

* : "WW" spool require: special body (K...), positioner (240) and lever (L192)

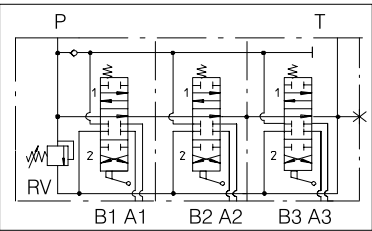
** : special body required (please contact our Sales Dept.)

Schemes

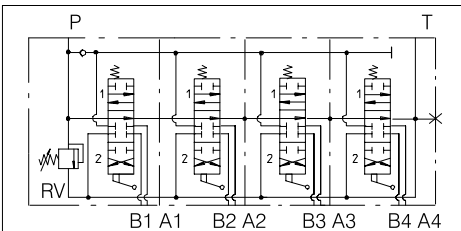
Two spools



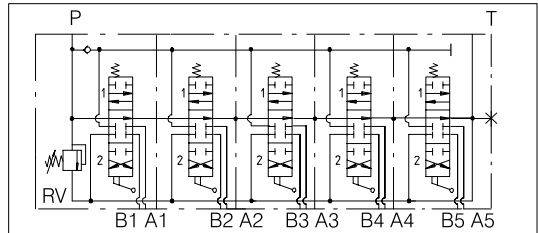
Three spools



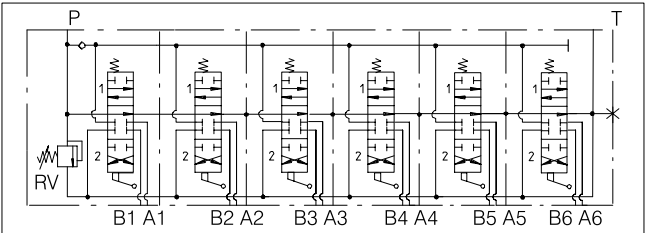
Four spools



Five spools



Six spools



Spool positioners

Type	F (N)	Code*
01 STD	200	200.7685.1001.0
79	140	200.7685.1092.0

3 position spring return to neutral

Type	Code*
02	200.7685.3001.0

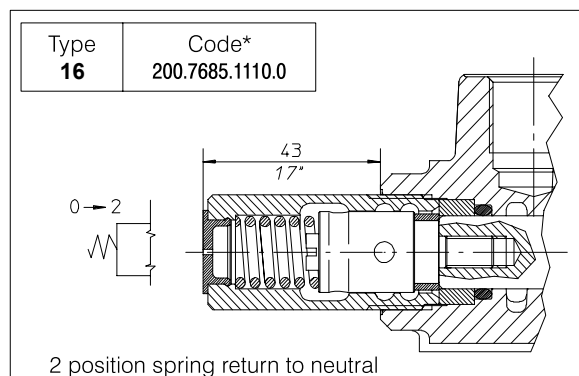
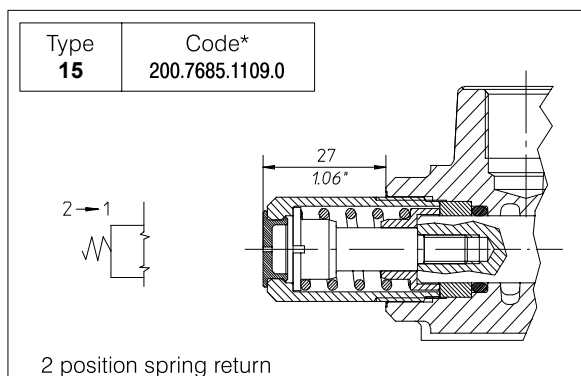
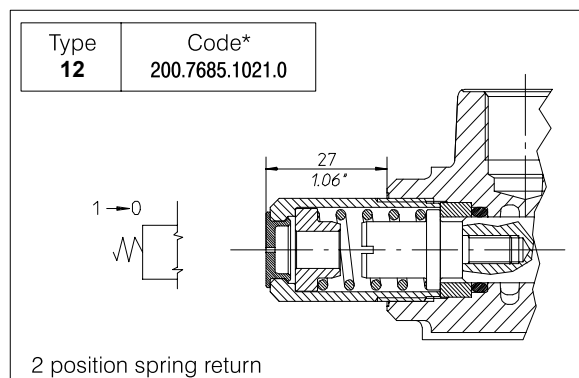
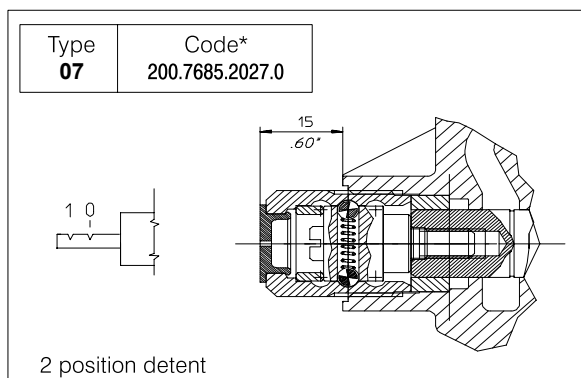
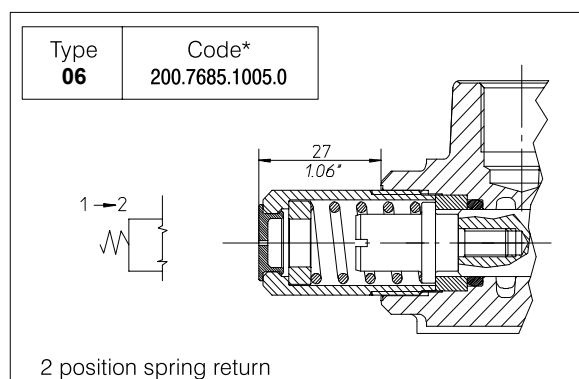
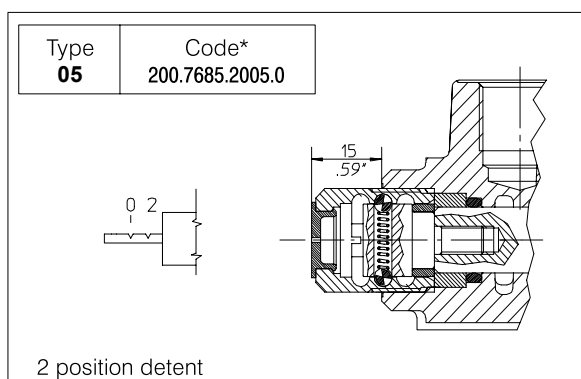
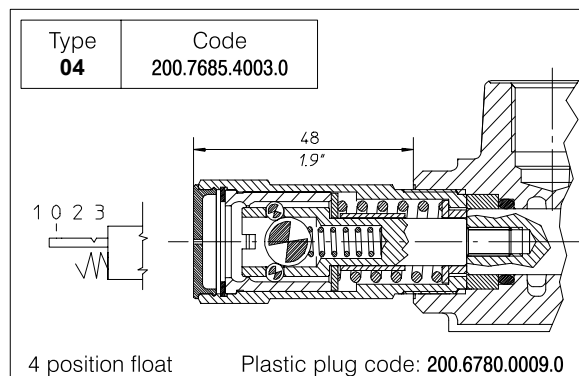
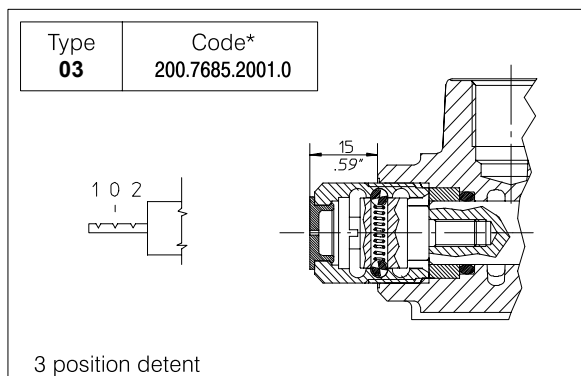
2 position detent - spring center

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Spool positioners



* : code without plastic plug; plastic plug code: 200.6780.0008.0

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Spool positioners

Type 17	Code* 200.7685.1040.0
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2 position spring return

Type 20	Code* 200.7685.3010.0
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2 position detent + spring center

Type 38	Code* 200.7685.2029.0
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4 position detent

Type 84	Code 200.9686.1097.0
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3 position spring return to neutral

Type 88	Code 200.9686.1010.0
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3 position spring return to neutral

Type 106	Code* 200.7685.2028.0
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2 position detent - spring return to pos. 1

Type 240	Code 200.7685.4031.0	Plastic plug code: 200.6780.0009.0
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4 position float
only for "WW" float spool

* : code without plastic plug; plastic plug code: 200.6780.0008.0

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Microswitch control

Type 30	Code 200.9686.1050.0	Micro operated with spool in pos. 1		
Type 32	Code 200.9686.1060.0	Micro operated with spool in pos. 2		
Type 34	Code 200.9686.1064.0	Micro operated with spool in pos. 1 and 2		

* The microswitch code 200.9625.0006.0 is supplied only on customer's request

Single microswitch control for multi-sectional valves (1st and second-last element).

Type 39 (MSF)	Code 200.9686.1139.0
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Micro operated with spool in pos. 1 and 2

Single microswitch control for multi-sectional valves (last element).

Type 40 (MFL)	Code 200.9686.1140.0
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Micro operated with
spool in pos. 1 and 2

1 - Positioner 40 must be assembled only on the last element near T port
2 - Positioner 40 require T port plugged. Use T1 or T2 ports

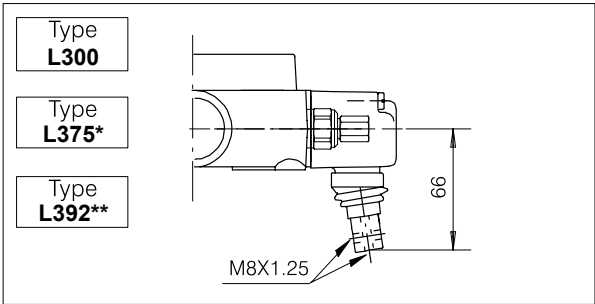
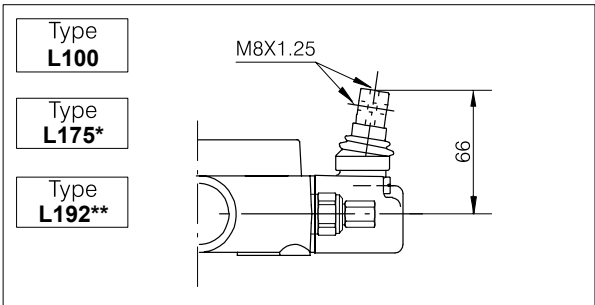
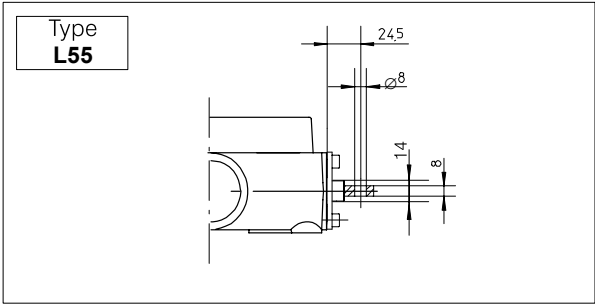
* The microswitch code 200.9625.0006.0 is supplied only on customer's request.

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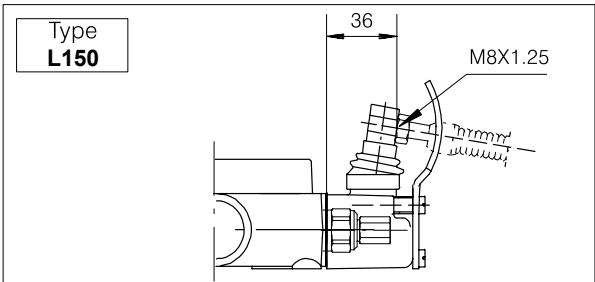
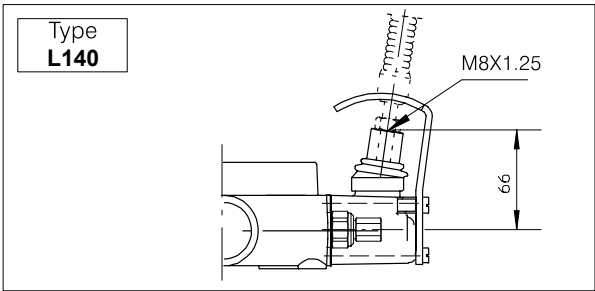


Lever styles



* L175 - L375 only for "Z" spool application
** L192 - L392 only for "WW" spool application

Safety levers



Type	Lo		Code
	mm	inches	
AL001	150	5.90	200.7022.1019.0
AL002	200	7.87	200.7022.1003.0
AL003	250	9.84	200.7022.1005.0
AL004	300	11.81	200.7022.1006.0

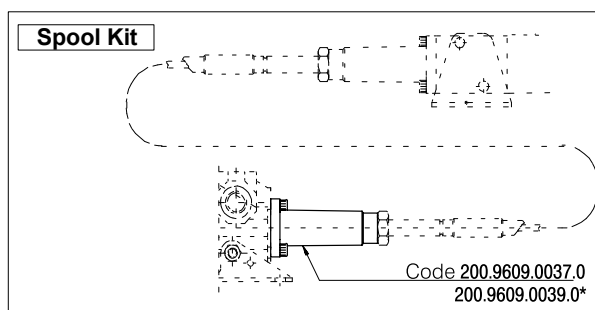
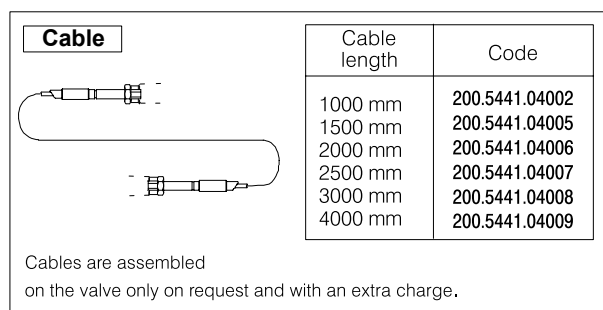
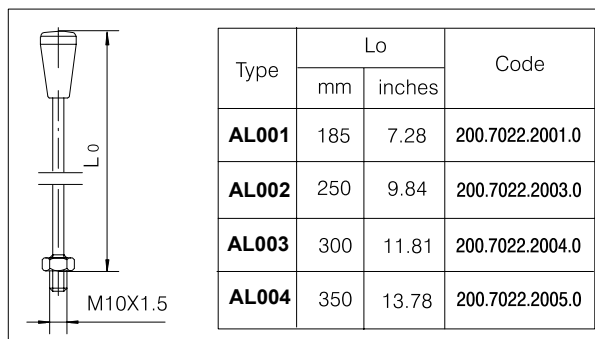
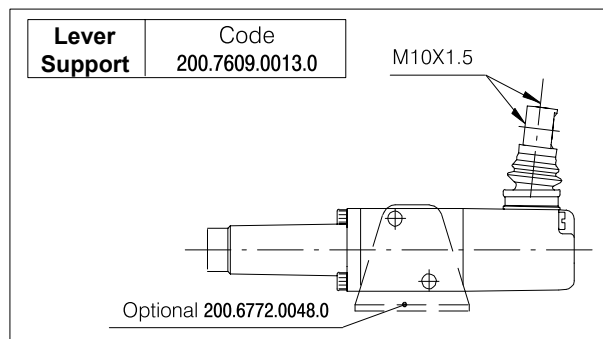
Type	Lo		Code
	mm	inches	
AL014	160	6.30	200.7022.1009.0
AL018	180	7.08	200.7022.1011.0

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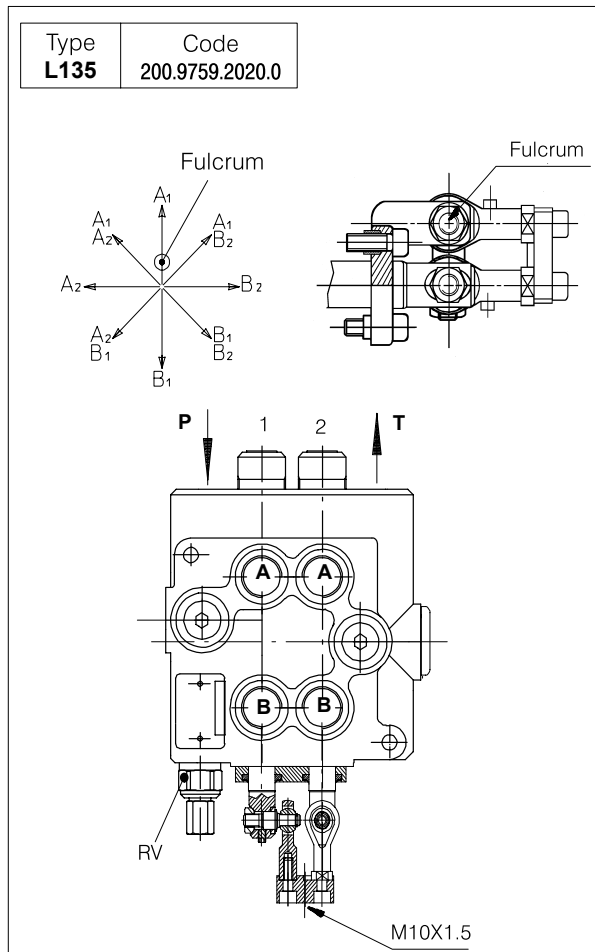
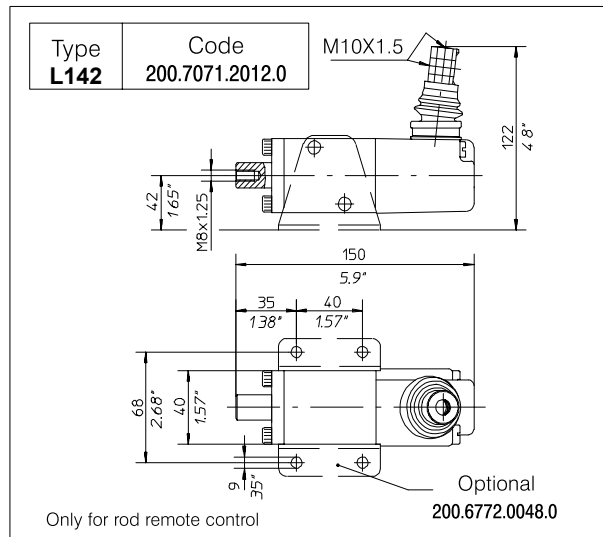
Mono-Block Directional Control Valve



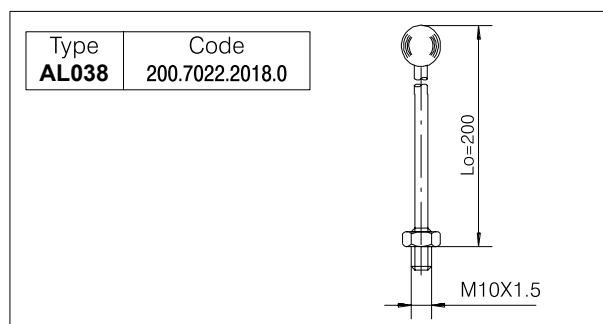
Remote cable control



* only for "Z" spool application



Cross joystick for dual axis control



HDM11P Series

Mono-Block Directional Control Valve



HOW TO ORDER

