

HDM140 Series

Mono-Block Directional Control Valve



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HDM140 Series

Mono-Block Directional Control Valve



General Specifications

Technical specification	Metering unit system	
Max flow rate	l/min U.S.G.P.M.	40 10
Max operating pressure	bar PSI	320 4600
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
Average	cm ³ /min Cu. In./min	6 0.366

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

Number of spools	1
Adjustable direct operated relief valve (tamper-proof seal available on request)	RV
Single load hold check valve	LC

Weight

Technical specification	Metering unit systems	
HDM140	kg LBS	1.75 3.85

Material specification:

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

Standard features:

- 1) Balanced interchangeable spools (provides minimum leakage, smooth operation)
- 2) Wide selection inlets, work ports, and outlets threaded ports.
- 3) 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 (motor spool) and other spool options.
- 2) Complete lever assembly.
- 3) Wide range spool positioners.

Symbols:

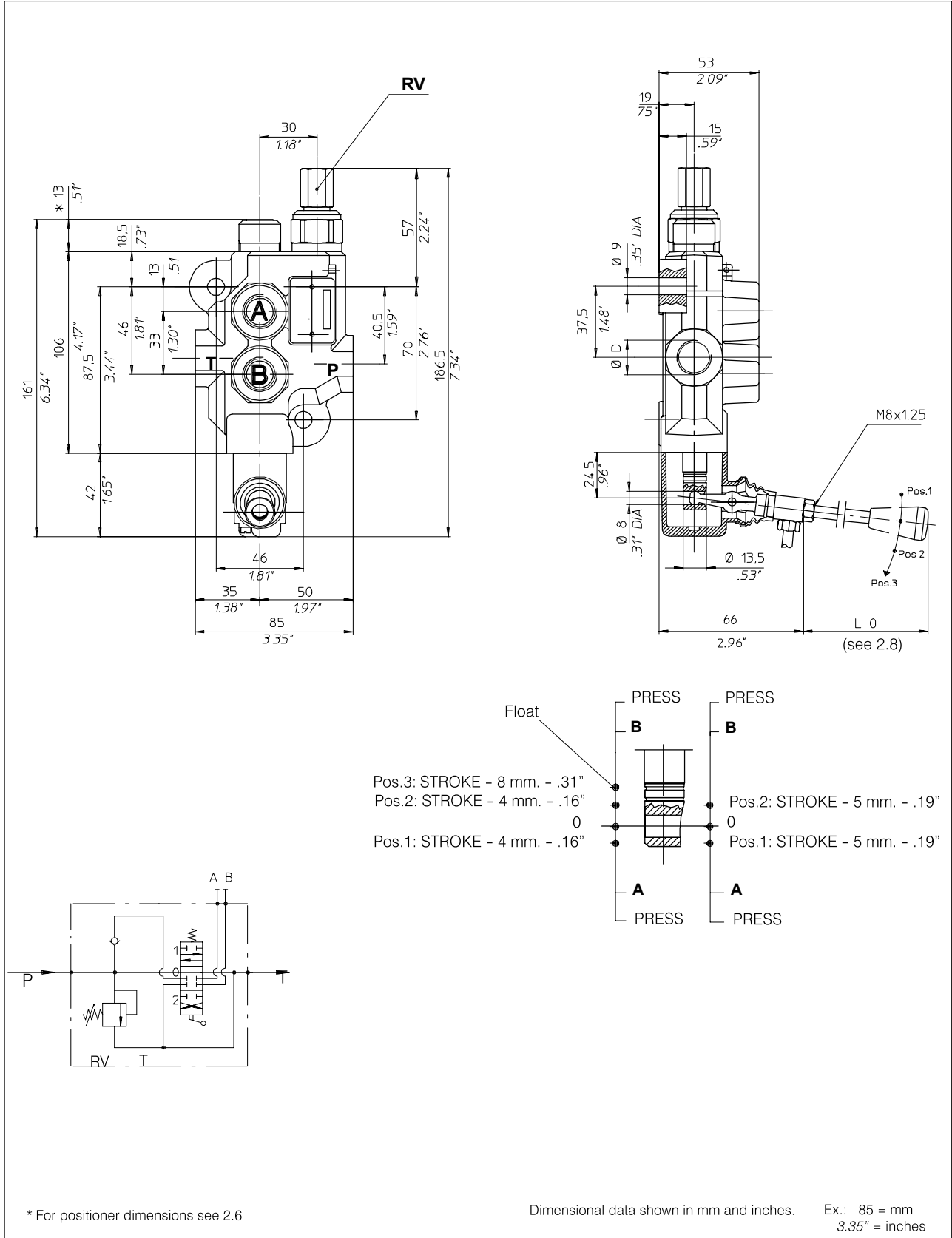
P: inlet port
T: outlet port
A/B: work ports
RV: relief valve
3.1.0.2: spool position
P: pressure line
T: exhaust line
E: center line (by pass).

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Dimensional data



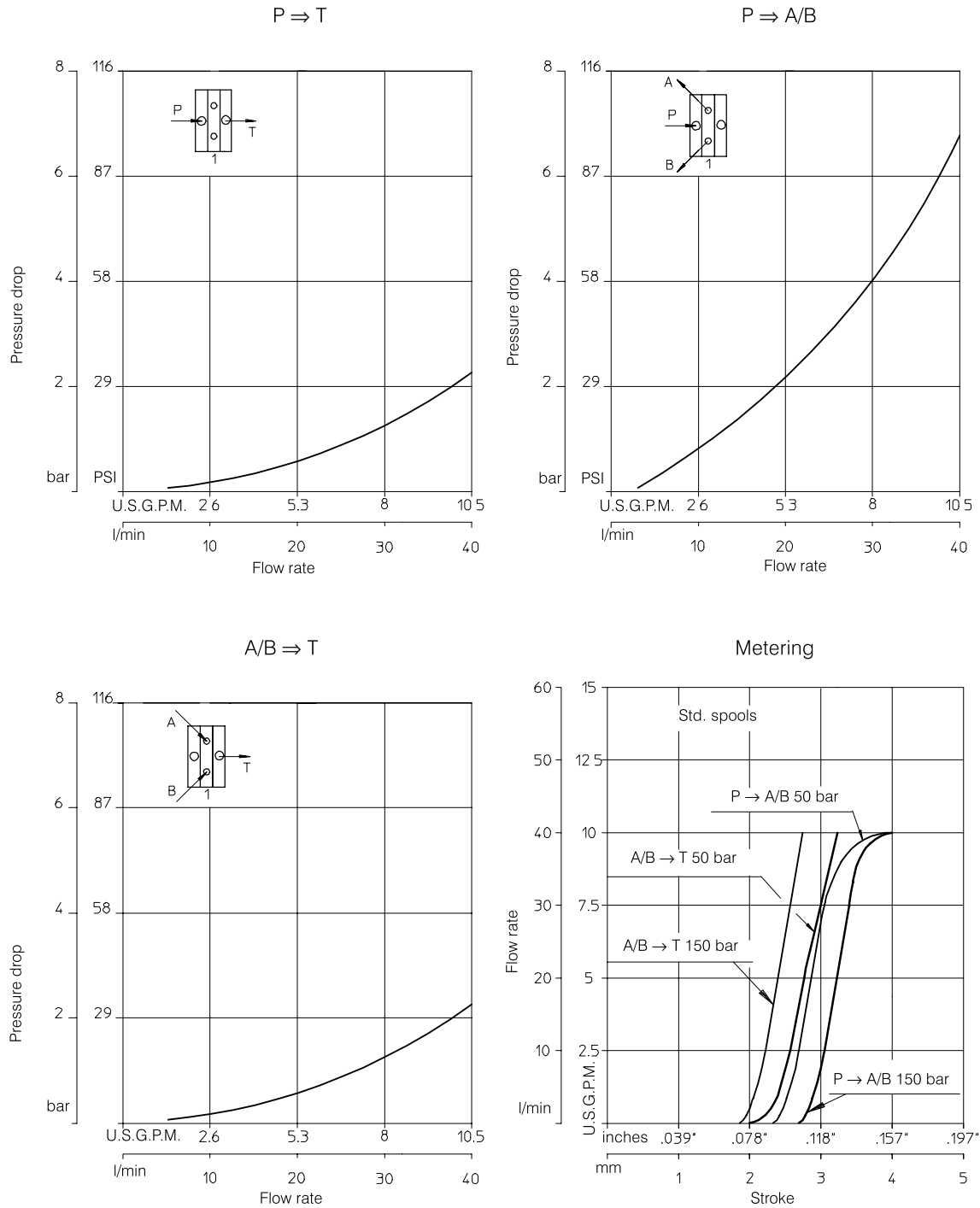
HDM140 Series

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Performance curves

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

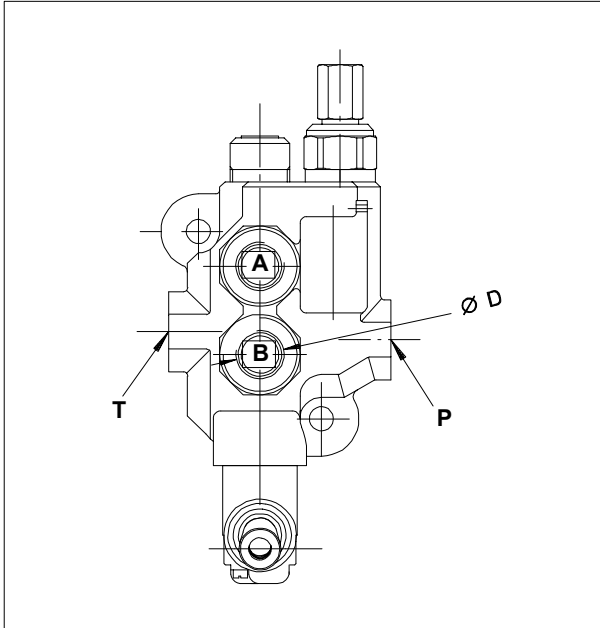


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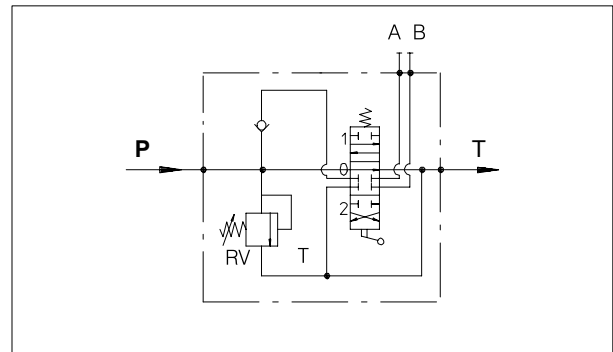
Mono-Block Directional Control Valve



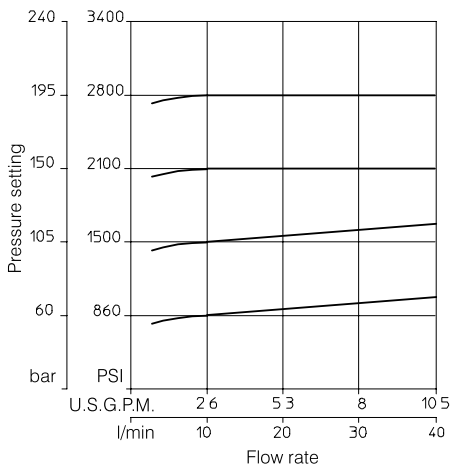
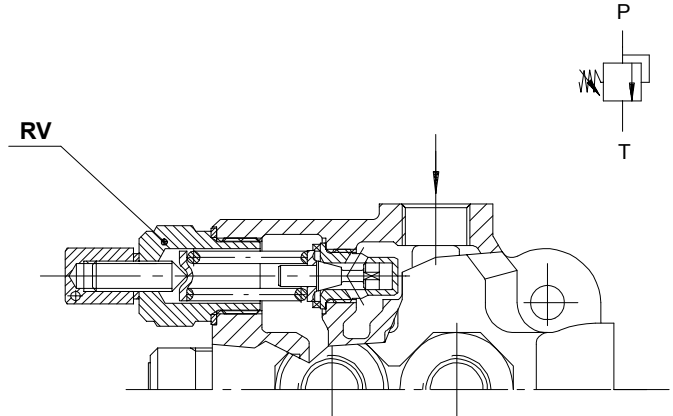
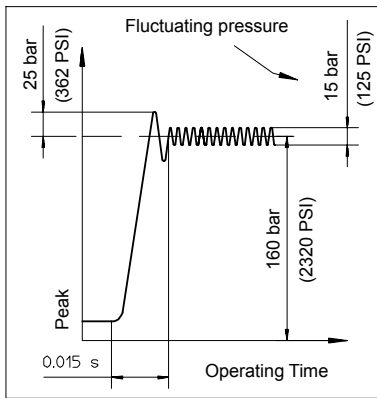
Monobloc body



Ø D (diameter)	Code
M18X1.5	K01 200.9421.1001.0
3/8" BSP	K02 200.9421.2001.0
SAE8	K05 200.9421.7001.0



Adjustable direct acting Relief Valve RV



Relief valve set at 30 l/min (8 U.S.G.P.M.)

Range of Adjustment bar (PSI)	Spring colour	Std. setting bar (PSI)	Setting Code
30 - 95 (400 - 1300)	Yellow (YE)	60 (860)	06
96 - 210 (1300 - 3000)	Green (GR)	150 (2100)	15
211 - 320 (3000 - 4600)	Blue (BL)	260 (3700)	26

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

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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 centre

Type	Code*
03	200.7685.2001.0

3 position detent

Type	Code
04	200.7685.4003.0

4 position float
Plastic plug code: 200.6780.0009.0

Type	Code*
05	200.7685.2005.0

2 position detent

Type	Code*
06	200.7685.1005.0

2 position spring return

Type	Code*
07	200.7685.2027.0

2 position detent

Type	Code*
12	200.7685.1021.0

2 position spring return

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

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Spool positioners

Type 15	Code* 200.7685.1109.0
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2 position spring return

Type 16	Code* 200.7685.1110.0
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2 position spring return to neutral

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 centre

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

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

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Microswitch control every single element

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

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

Spool chart

Type	Spool scheme	Spool features
A		4 way - 3 position A/B: blocked E: open by pass
B		4 way - 3 position A/B: blocked E: closed
C		4 way - 3 position A/B to tank in neutral E: open by pass
G		3 way - 3 position B: blocked E: open by pass
R**		4 way - 3 position with regenerative spool in 1 st position
S		3 way - 3 position A: blocked E: open by pass
Z		4 way - 4 position 4 th floating position

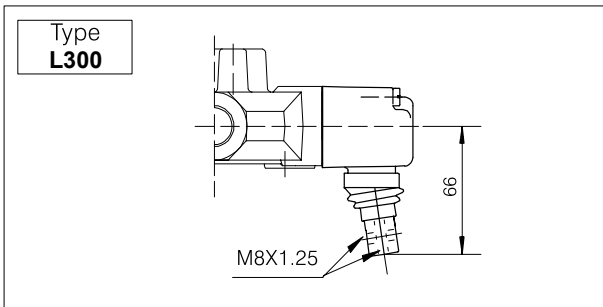
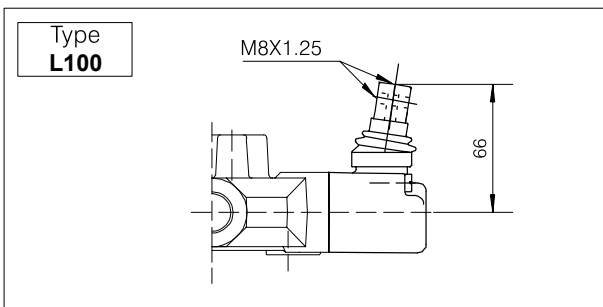
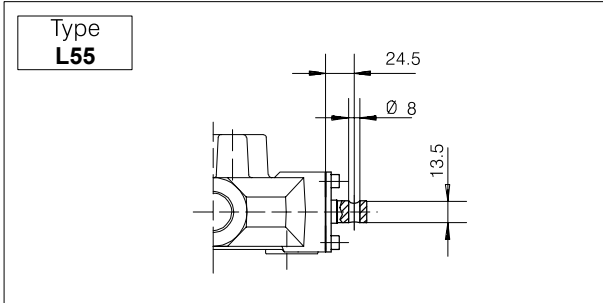
** : special body required

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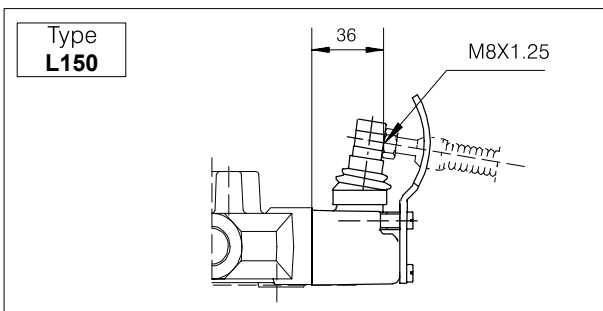
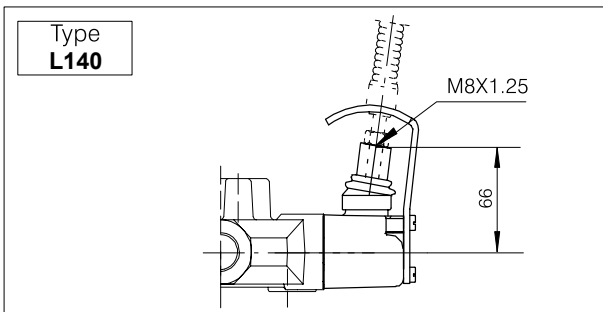


Lever styles



Type	Lo		Code
	mm	inches	
AL001 standard	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

Safety levers



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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Remote cable control

Lever Support	Code 200.7609.0013.0
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M10X1.5

Optional 200.6772.0048.0

Type	Lo		Code
	mm	inches	
AL001	185	7.28	200.7022.2001.0
AL002	250	9.84	200.7022.2003.0
AL003	300	11.81	200.7022.2004.0
AL004	350	13.78	200.7022.2005.0

Cable	
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Cable length	Code
1000 mm	200.5441.04002
1500 mm	200.5441.04005
2000 mm	200.5441.04006
2500 mm	200.5441.04007
3000 mm	200.5441.04008
4000 mm	200.5441.04009

Cables are assembled on the valve only on request and with an extra charge.

Spool Kit	
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Code: 200.9609.0003.0

HDM140 / 1 K05 - 140 - A 01 - L100

Valve Series

Number of Spools

Porting Code

Relief Valve setting (bar)

Hand Lever Style

Spool Positioner Type

01 = Spring Centred

03 = 3 Pos'n Detent

Spool Type (See Spool Chart)