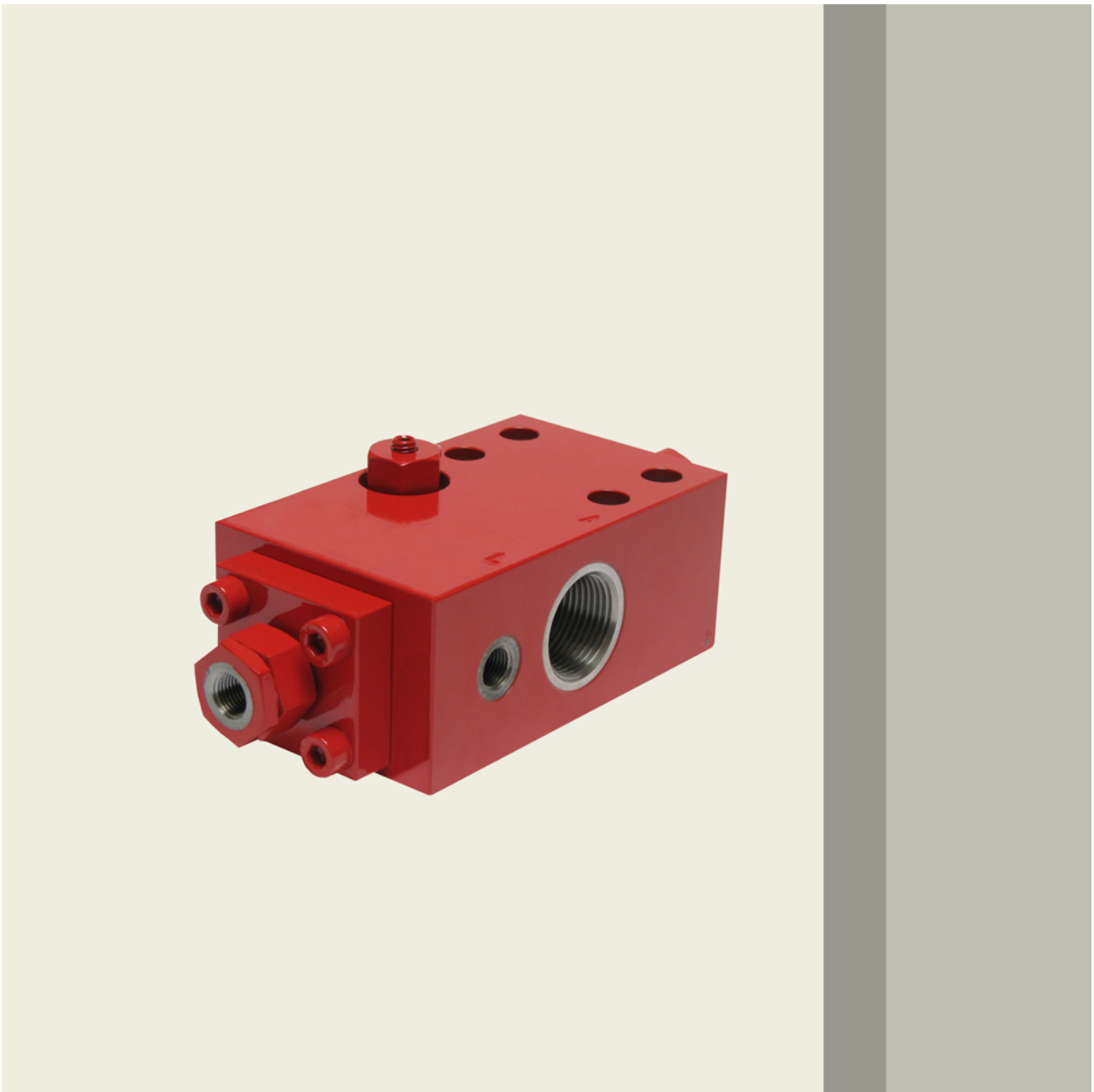


Safety for Hydraulics

Leak-Free Load Control Valve
Series Cindy-MP



motion and progress

Contents

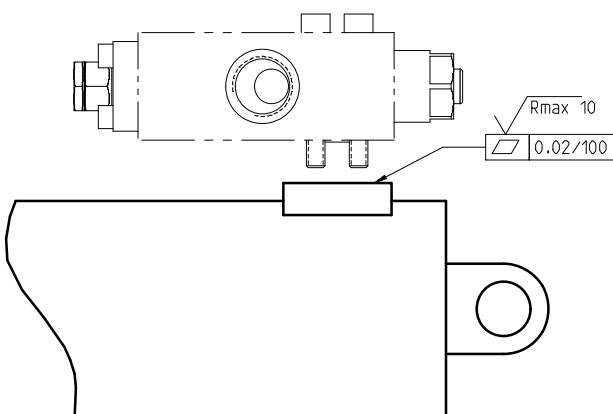
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1 Selection table for Cindy-MP

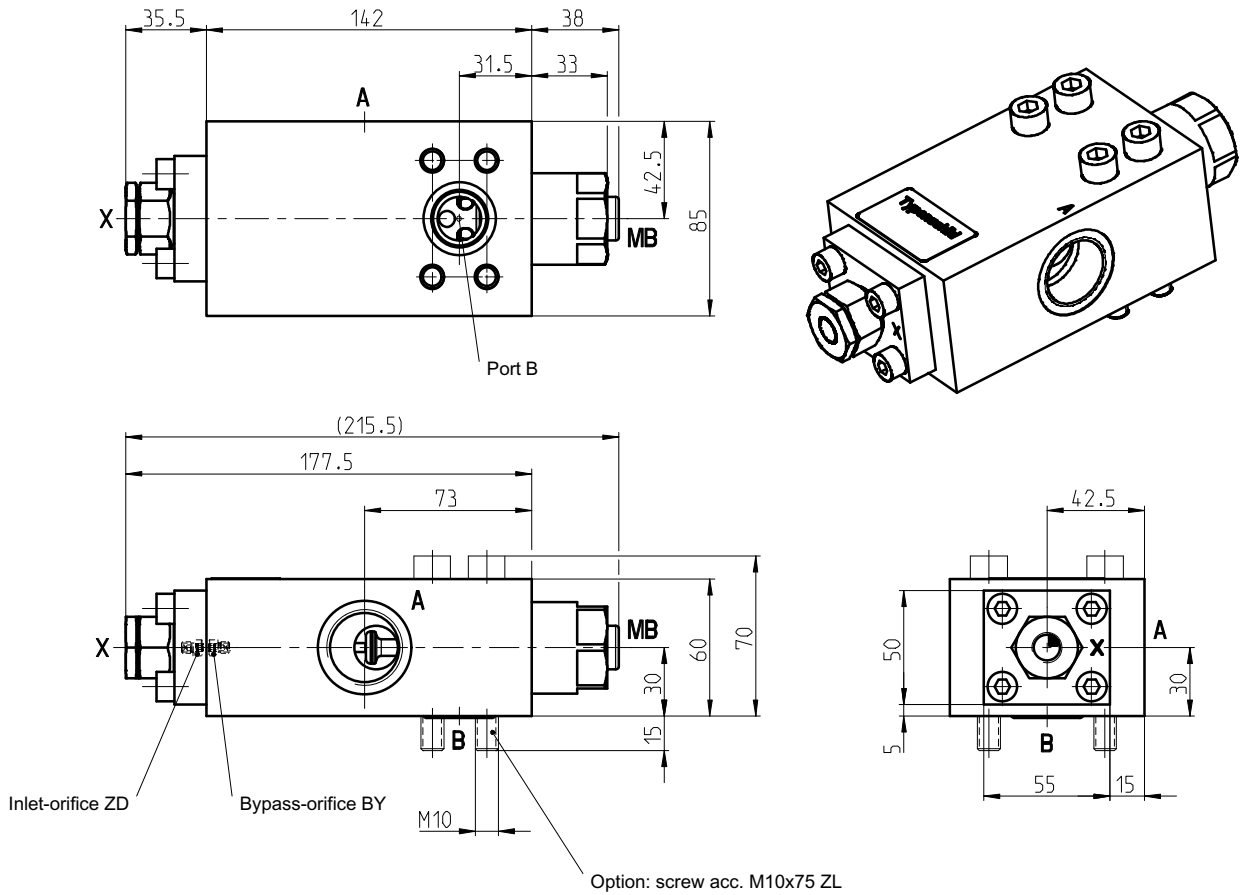
Flow rating [l/min]	Port B SAE 6000 psi	Port A	With thermal pressure relief valve SVZ	Pressure-overcompensation	Back-pressure dependent	Back-pressure independent	Standard pilot cover (G)	Damping cover (D)	Damping cover (K) (recommended for winch-applications)	Hydraulic pressure reducing valve (R)	Electro-proportional pressure reducing valve (E)	Page number	
Cindy-MP 16-B-S up to 250 [l/min]	SAE 3/4"	G 1"			X		X	X	X			Page 6	
						X	X	X	X	X	X	Page 7	
			X			X	X	X			X	X	Page 8
				X		X	X				X	X	Page 9
			X	X		X	X	X			X	X	Page 10
Cindy-MP 20-B-S up to 350 [l/min]	SAE 1"	G 1"			X		X	X	X			Page 11	
						X	X	X	X	X	X	Page 12	
			X			X	X	X			X	X	Page 13
				X		X	X				X	X	Page 14
			X	X		X	X	X			X	X	Page 15

2 Required quality of the mating surface

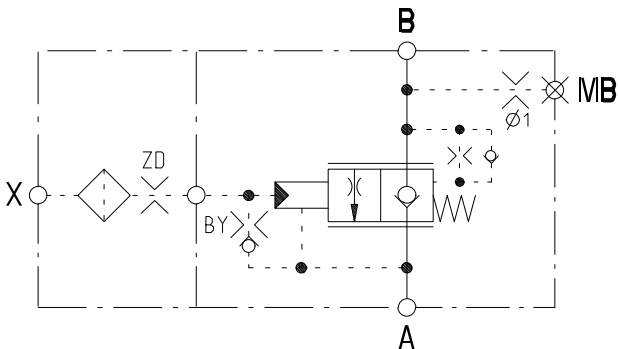


3 Cindy-MP 16-B-S..S...A-....

3.1 Standard pilot cover (G)



3.2 Hydraulic circuit



3.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 3/4" 6000 psi	24.99 x 3.53
X, MB	G 1/4"	-

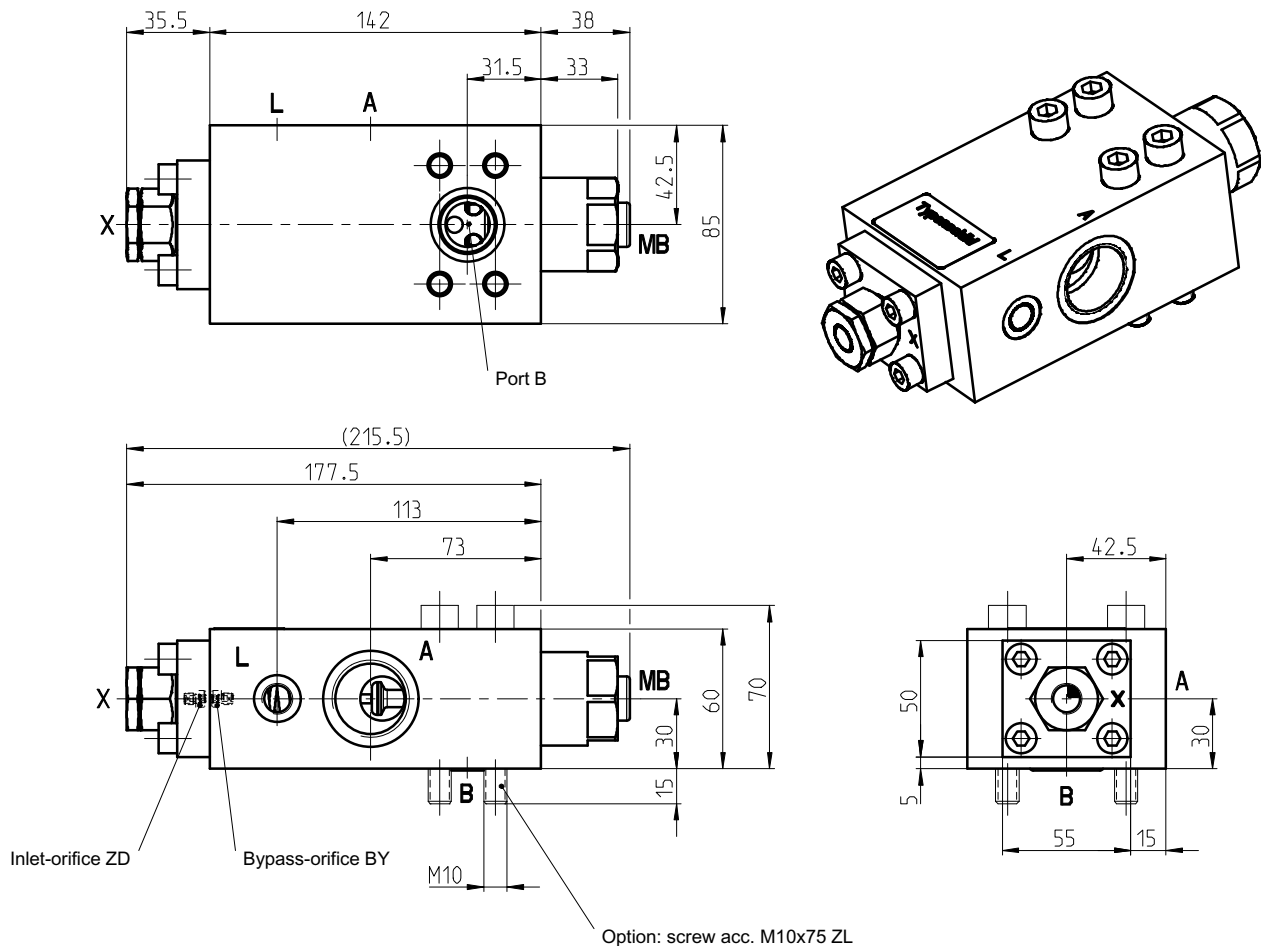
Weight: approx. 5.47 kg

3.4 Pilot-control options / Sales item no.

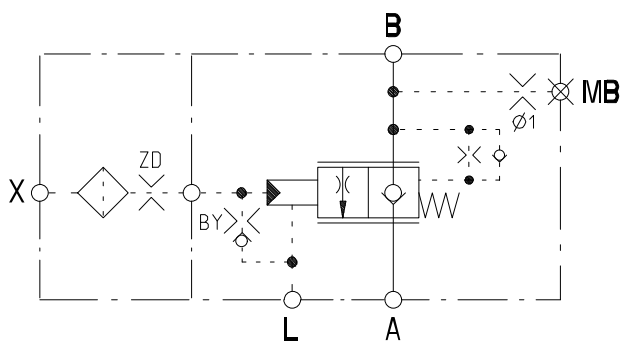
G	K	D
3006015182	3006015183	3006015184

4 Cindy-MP 16-B-S..S...-L-...-

4.1 Standard pilot cover (G)



4.2 Hydraulic circuit



4.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 3/4" 6000 psi	24.99 x 3.53
X, L, MB	G 1/4"	-

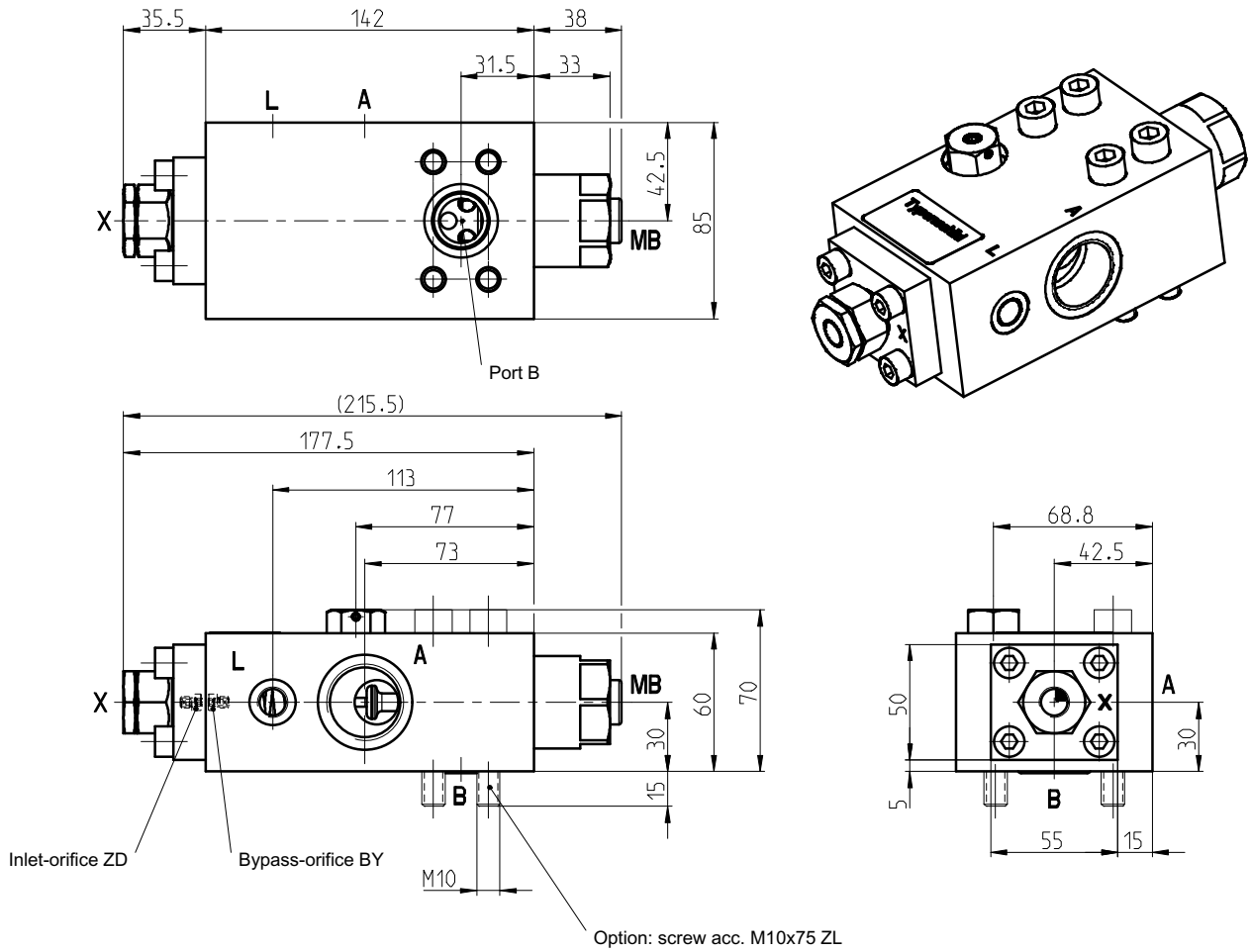
Weight: approx. 5.45 kg

4.4 Pilot-control options / Sales item no.

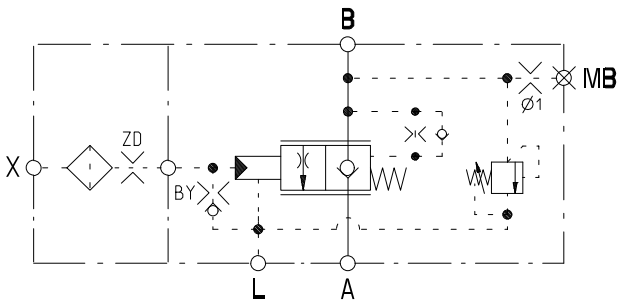
G	D	E	R	K
3006015185	3006015186	3006015501	3006015502	3006015599

5 Cindy-MP 16-B-S..S...-L-...-SVZ...

5.1 Standard pilot cover (G)



5.2 Hydraulic circuit



5.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 3/4" 6000 psi	24.99 x 3.53
X, L, MB	G 1/4"	-

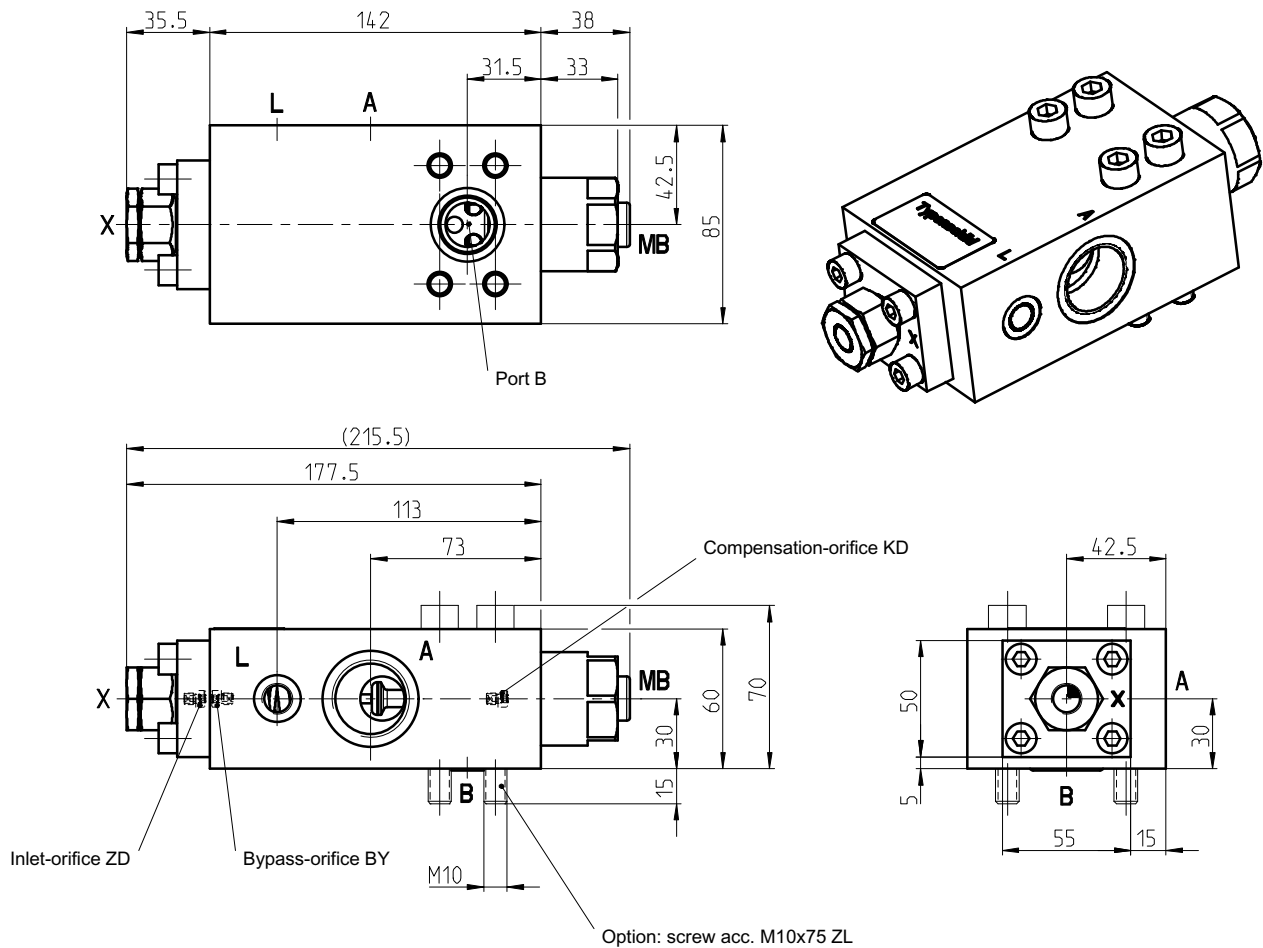
Weight: approx. 5.46 kg

5.4 Pilot-control options / Sales item no.

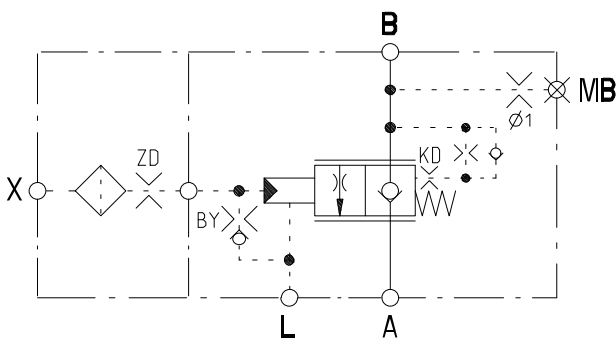
G	D	E	R
3006015187	3006015188	3006015503	3006015504

6 Cindy-MP 16-B-S...S...-L-...-... (Pressure-overcompensation)

6.1 Standard pilot cover (G)



6.2 Hydraulic circuit



6.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 3/4" 6000 psi	24.99 x 3.53
X, L, MB	G 1/4"	-

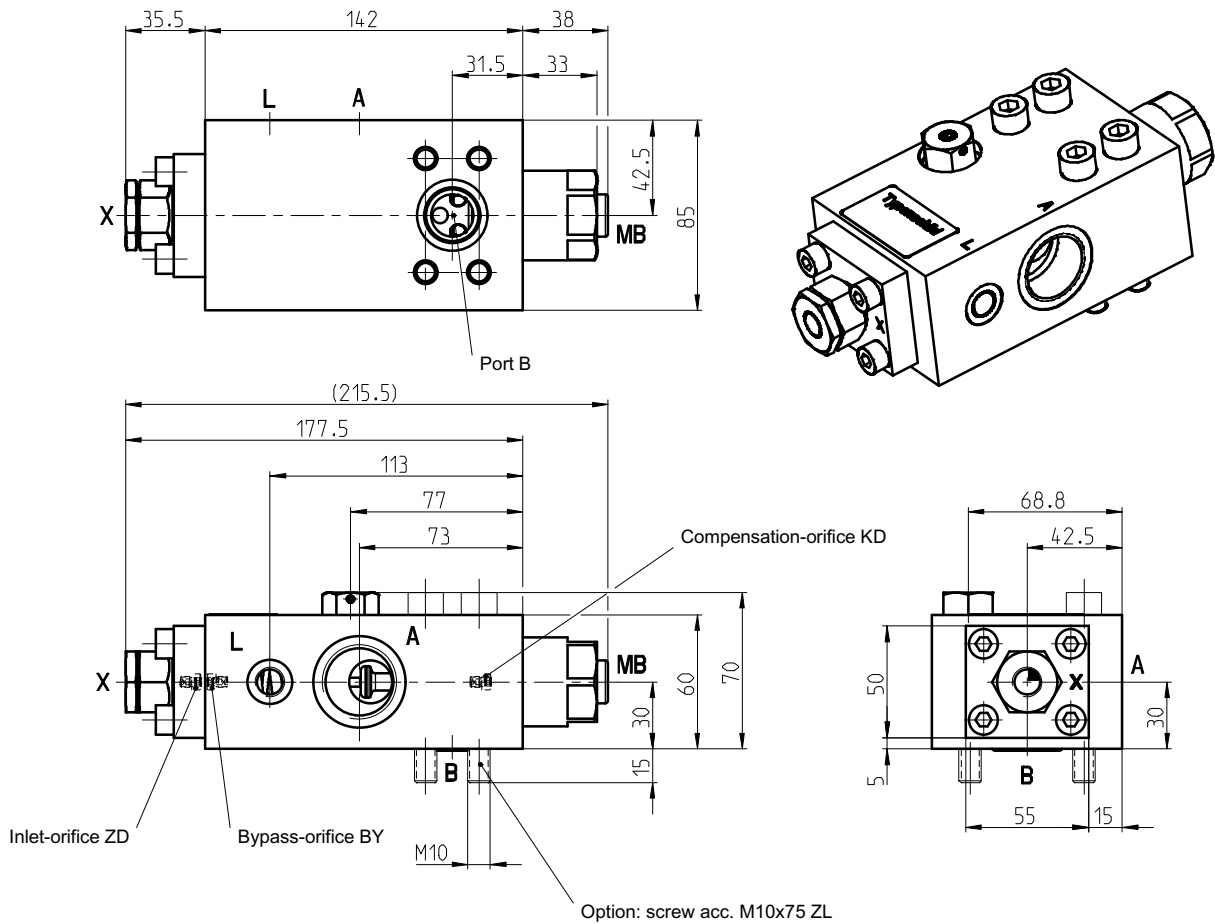
Weight: approx. 5.45 kg

6.4 Pilot-control options / Sales item no.

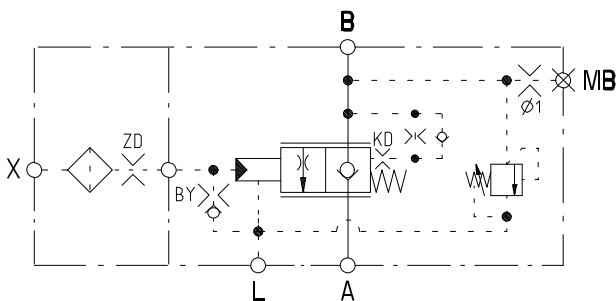
G	E	R
3006015185	3006015501	3006015502

7 Cindy-MP 16-B-S...S...L...-...-SVZ... (Pressure-overcompensation)

7.1 Standard pilot cover (G)



7.2 Hydraulic circuit



7.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 3/4" 6000 psi	24.99 x 3.53
X, L, MB	G 1/4"	-

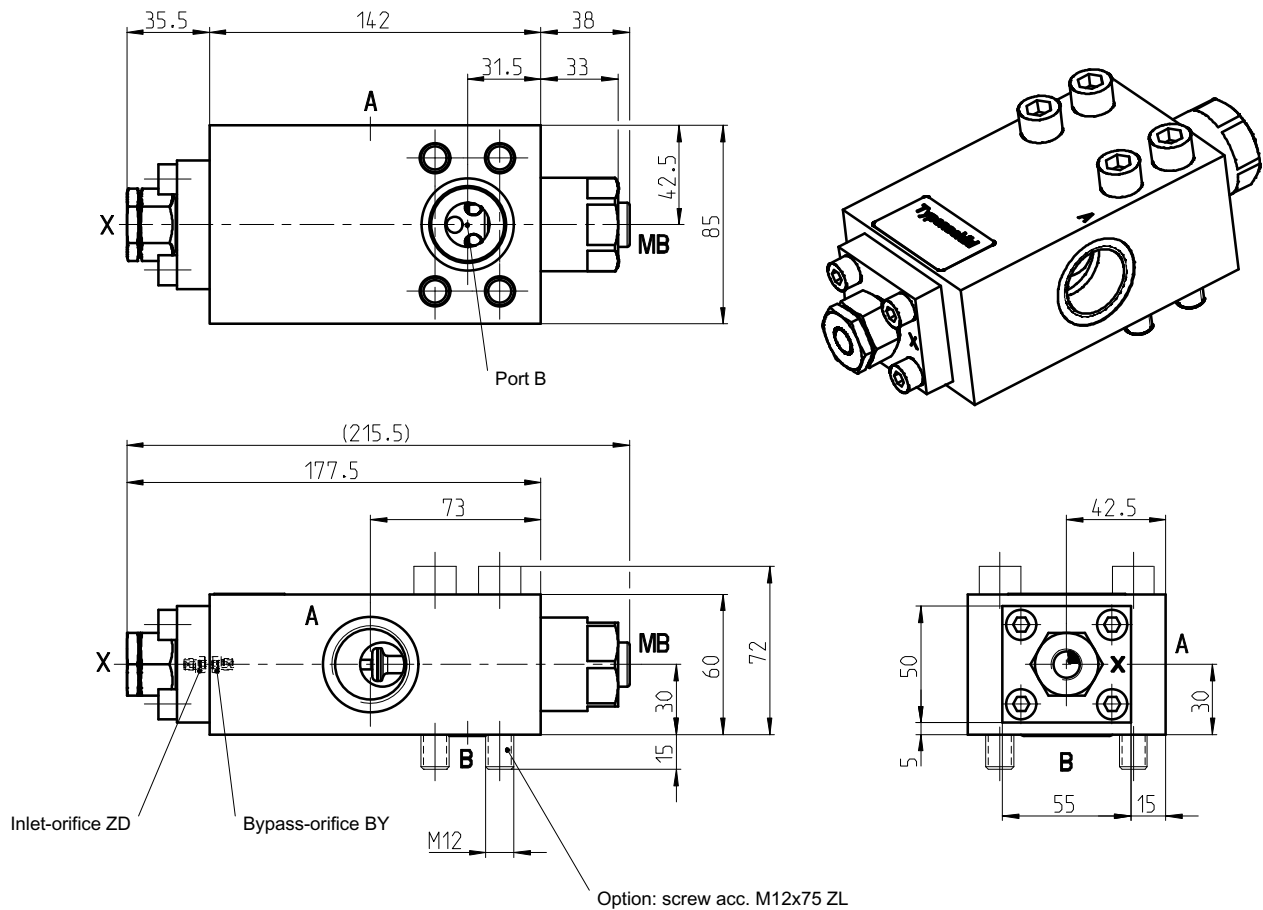
Weight: approx. 5.46 kg

7.4 Pilot-control options / Sales item no.

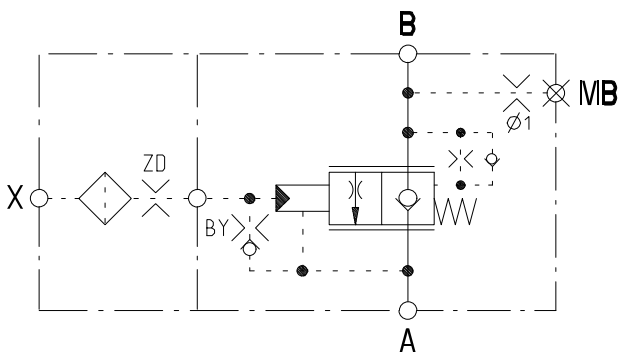
G	E	R
3006015187	3006015503	3006015504

8 Cindy-MP 20-B-S..S...-A-....

8.1 Standard pilot cover (G)



8.2 Hydraulic circuit



8.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 1" 6000 psi	32.92 x 3.53
X, MB	G 1/4"	-

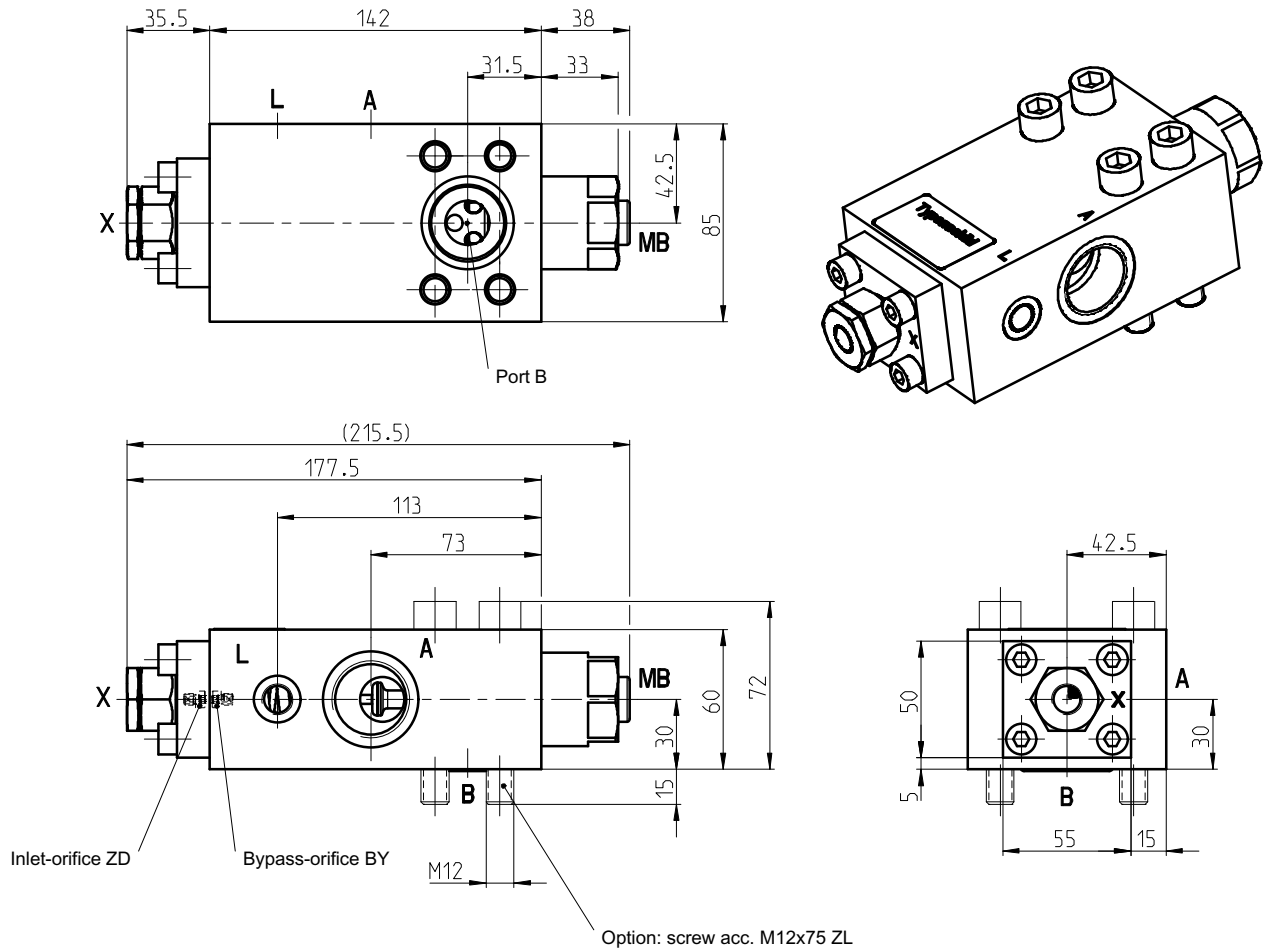
Weight: approx. 5.48 kg

8.4 Pilot-control options / Sales item no.

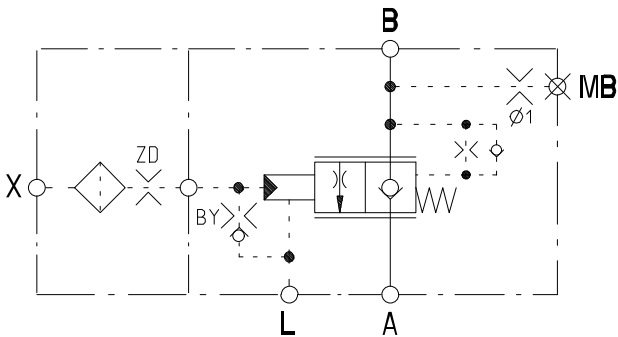
G	K	D
3006015189	3006015190	3006015191

9 Cindy-MP 20-B-S..-S...-L-...-..

9.1 Standard pilot cover (G)



9.2 Hydraulic circuit



9.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 1" 6000 psi	32.92 x 3.53
X, L, MB	G 1/4"	-

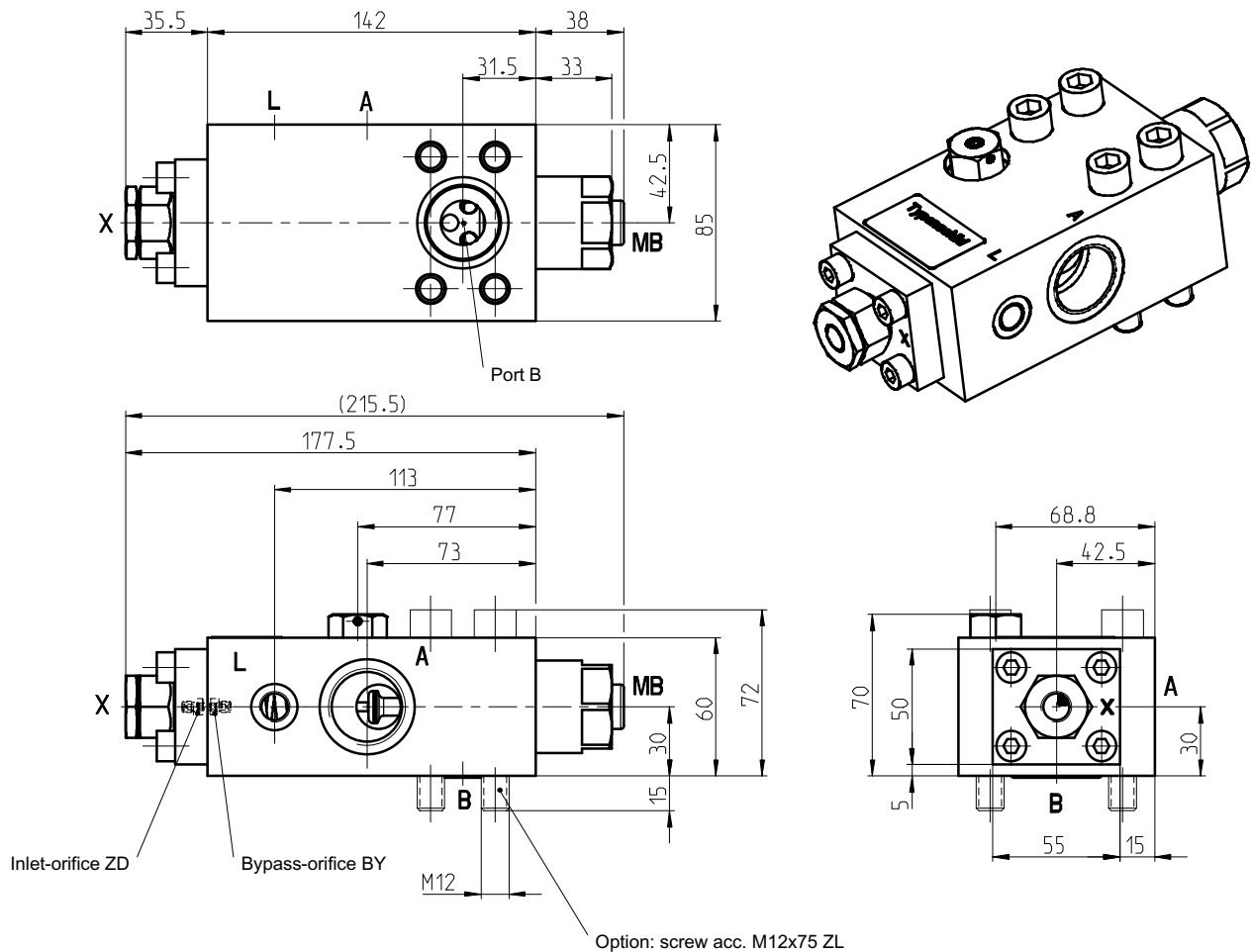
Weight: approx. 5.46 kg

9.4 Pilot-control options / Sales item no.

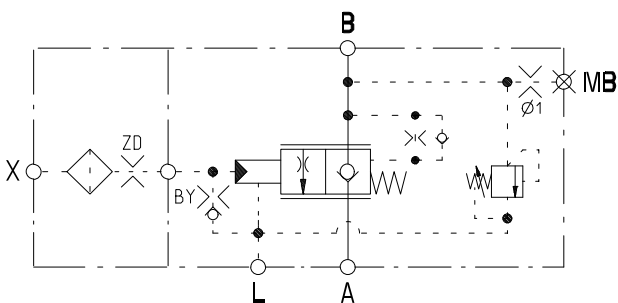
G	D	E	R	K
3006015192	3006015193	3006015505	3006015506	3006015596

10 Cindy-MP 20-B-S..S...-L-...-SVZ...

10.1 Standard pilot cover (G)



10.2 Hydraulic circuit



10.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 1" 6000 psi	32.92 x 3.53
X, L, MB	G 1/4"	-

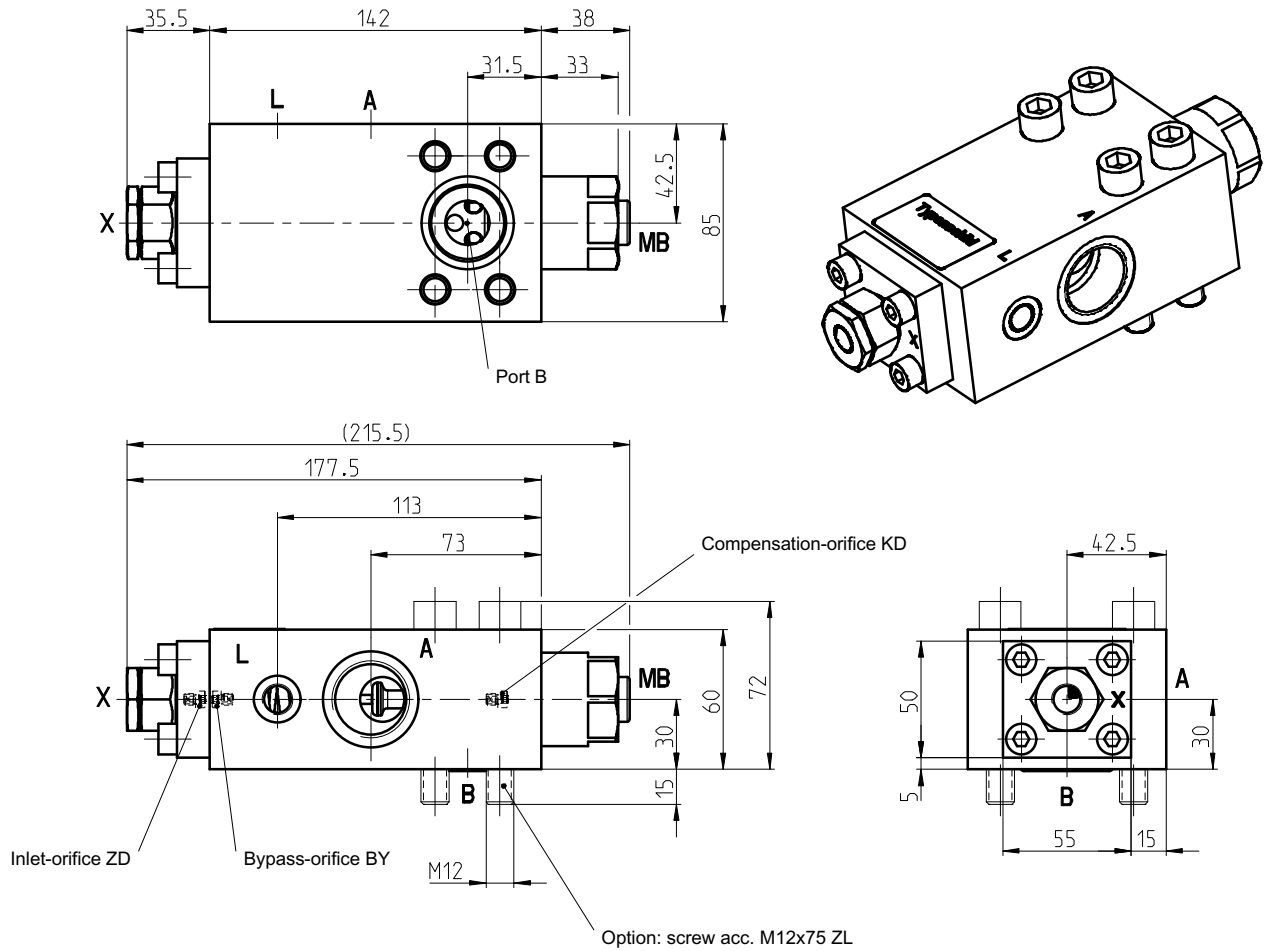
Weight: approx. 5.46 kg

10.4 Pilot-control options / Sales item no.

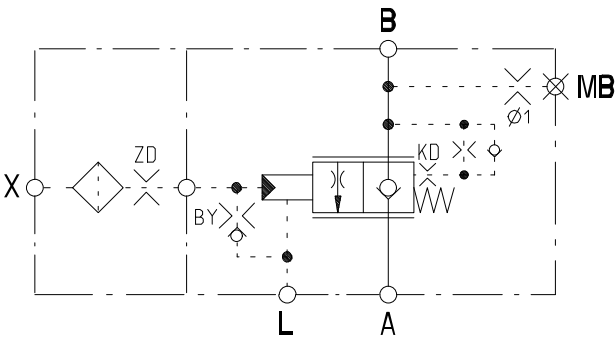
G	D	E	R
3006015194	3006015195	3006015507	3006015508

11 Cindy-MP 20-B-S...S...-L-...-... (Pressure-overcompensation)

11.1 Standard pilot cover (G)



11.2 Hydraulic circuit



11.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 1" 6000 psi	32.92 x 3.53
X, L, MB	G 1/4"	-

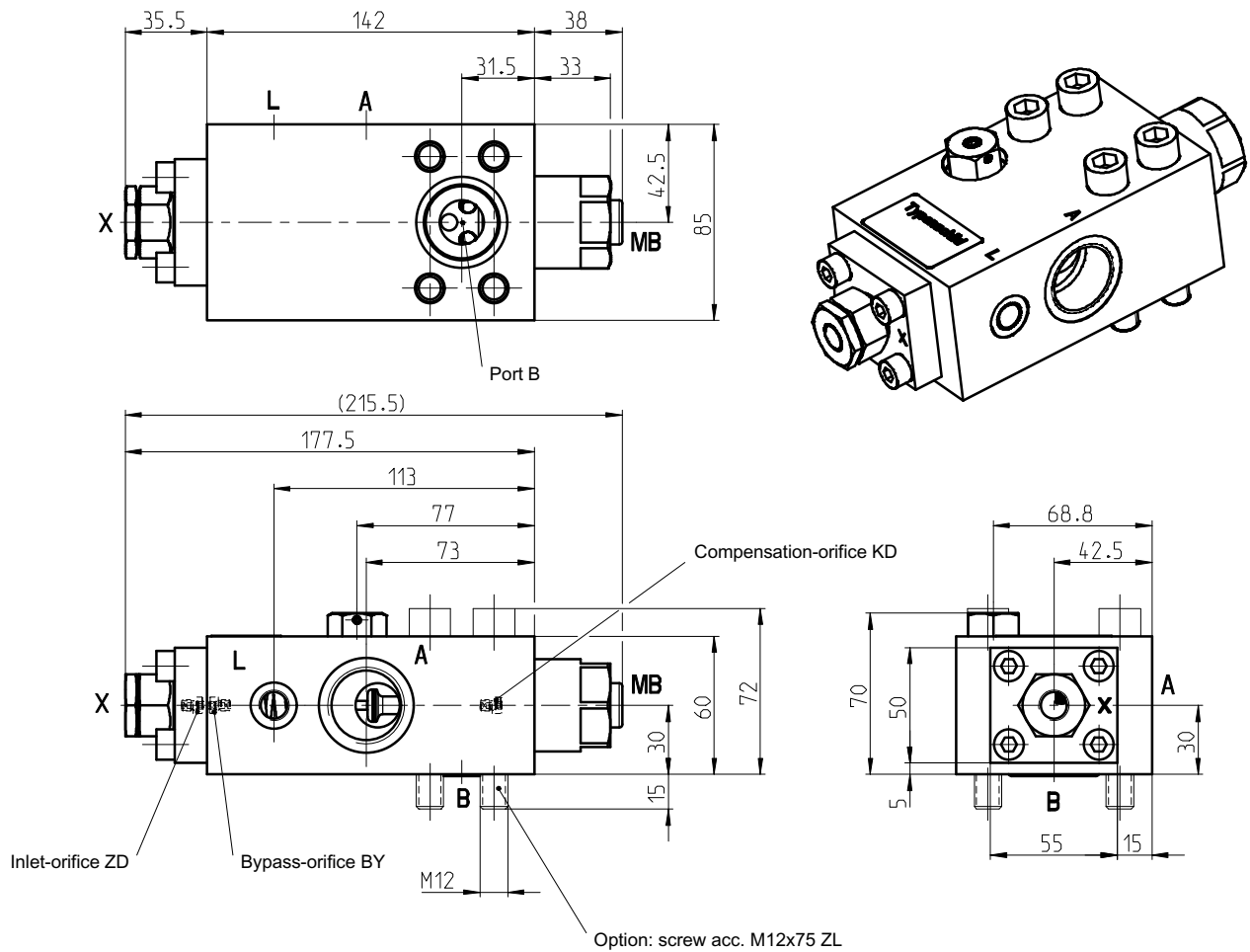
Weight: approx. 5.46 kg

11.4 Pilot-control options / Sales item no.

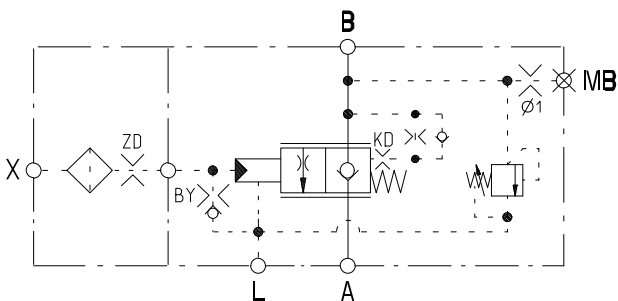
G	E	R
3006015192	3006015505	3006015506

12 Cindy-MP 20-B-S...S...-L...-...-SVZ... (Pressure-overcompensation)

12.1 Standard pilot cover (G)



12.2 Hydraulic circuit



12.3 Port sizes / weight

Ports	Port size	O-Ring
A	G 1"	-
B	SAE 1" 6000 psi	32.92 x 3.53
X, L, MB	G 1/4"	-

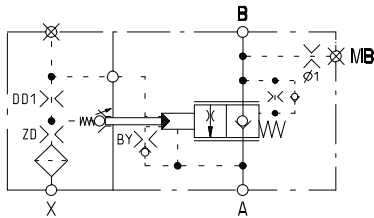
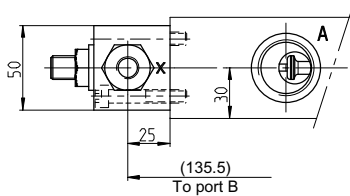
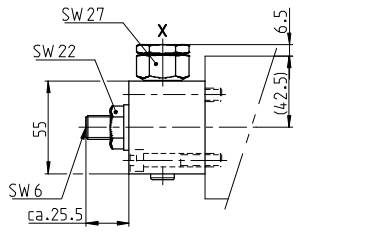
Weight: approx. 5.46 kg

12.4 Pilot-control options / Sales item no.

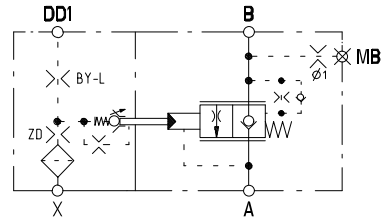
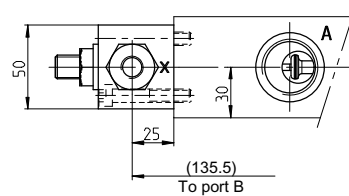
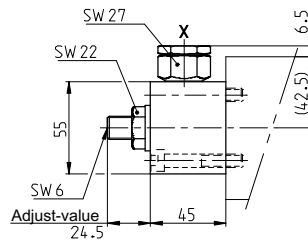
G	E	R
3006015194	3006015507	3006015508

13 Pilot-control options

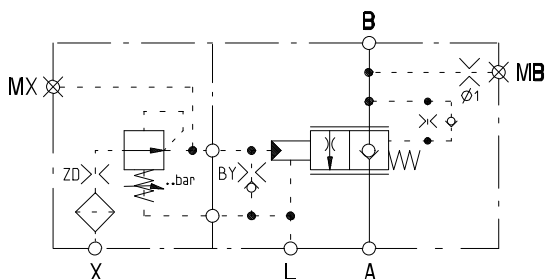
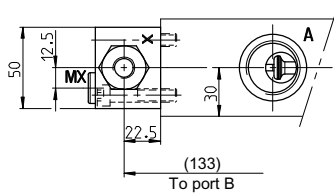
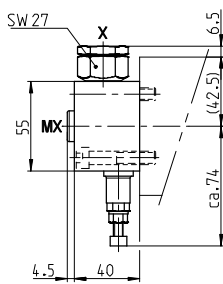
Damping cover (D)



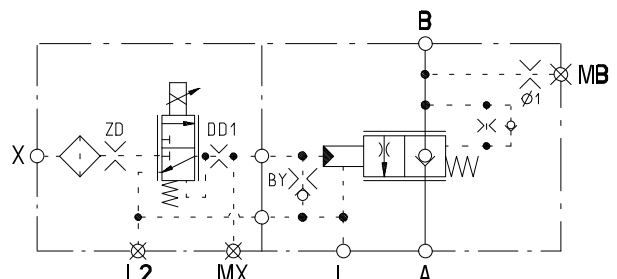
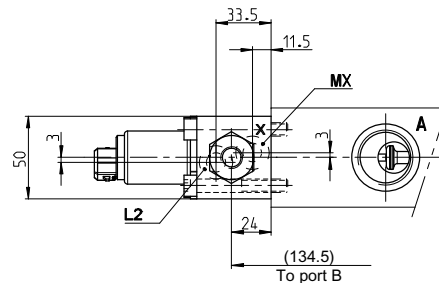
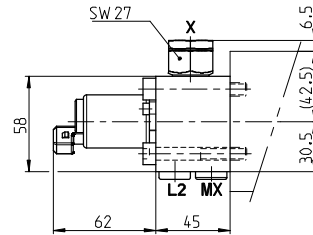
Damping cover (K) (winch)



Hydraulic pressure reducing valve (R)



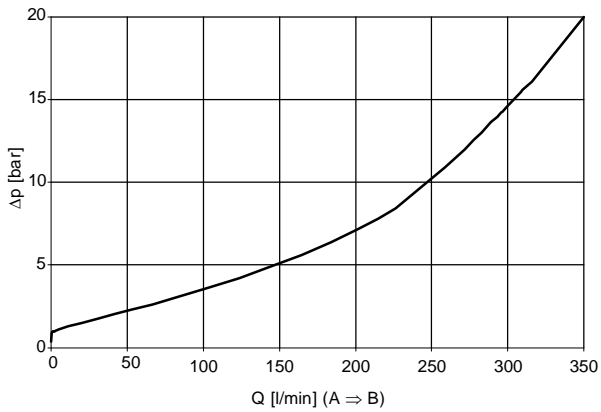
Electro-proportional pressure reducing valve (E)



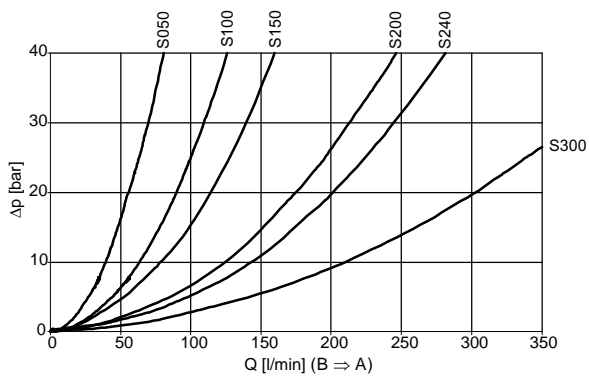
14 Performance graphs

(measured at 33 mm²/s)

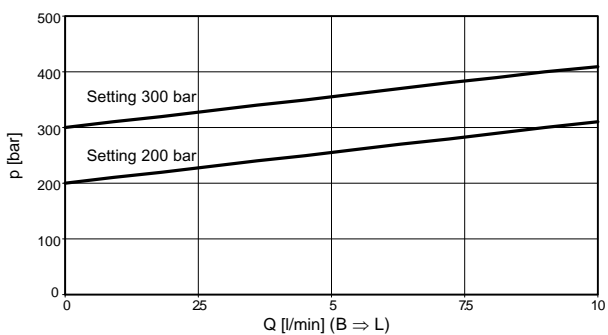
14.1 Δp for lifting (flow A \Rightarrow B)



14.2 Δp for lowering (flow B \Rightarrow A, main spool fully open)



14.3 Opening characteristics of the thermal pressure relief valve SVZ



15 Ordering code

	CINDY-MP	16	B	S															
Valve series Leak-free load control valve	= Cindy-MP																		
Nominal size NG 16 NG 20	= 16 = 20																		
Series B	= B																		
Application / valve type Load control valve, flange-mounted on actuator	= S																		
Seal material Nitrile (Standard) Low temperature Viton	-20°C bis +80°C = N -50°C bis +80°C = T -20°C bis +200°C = V																		
Fixing screws Without fixing screws Plated fixing screws	= O = D																		
Flow rate when lowering (spool type) 50 l/min. 100 l/min. 150 l/min. 200 l/min. 240 l/min. 300 l/min.	= S050 = S100 = S150 = S200 = S240 = S300																		
Influence in return line (back pressure) to pilot-pressure Back-pressure dependent (control pressure must be increased by the amount of back pressure) Back-pressure independent (drain line required)	= A = L																		
Pilot-control options Standard pilot cover Damping cover Damping cover (recommended for winch-applications) Hydraulic pressure reducing valve Electro-proportional pressure reducing valve	= G = D = K = R = E																		
Orifice combinations Type 1 bis 99	= ..																		
Pressure-overcompensation (option) 25% overcompensation 50% overcompensation	= 25 = 50																		
Secondary pressure relief valve (option) With thermal pressure relief SVZ from B to L	= SVZ																		
Pressure setting of SVZ (option) 80 to 350 bar	= ..																		

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www.bucherhydraulics.com

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Classification: 430.325.360.315