



DIPLOMATIC

Directional Control Valves

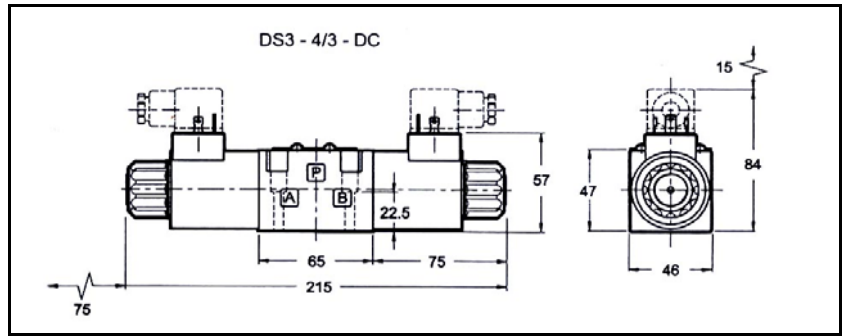



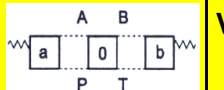





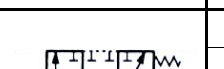
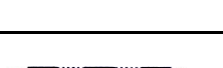
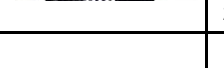
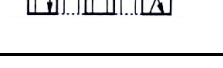
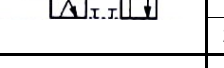


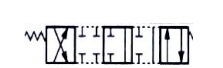
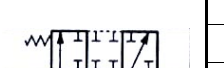


Directional Control Valves

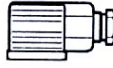


NG 6 / Cetop 3

Series :

DS3 - *



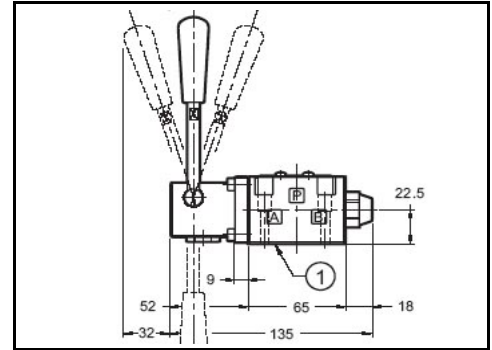
Symbol 	Voltage	Model	Symbol 	Voltage	Model
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	110 VAC	DU DS3-S1/10N-A110K1		110 VAC	DU DS3-TA/10N-A110K1
	230 VAC	DU DS3-S1/10N-A230K1		230 VAC	DU DS3-TA/10N-A230K1
	24 VDC	DU DS3-S2/10N-D24K1		24 VDC	DU DS3-TA02/10N-D24K1
	110 VAC	DU DS3-S2/10N-A110K1		110 VAC	DU DS3-TA02/10N-A110K1
	230 VAC	DU DS3-S2/10N-A230K1		230 VAC	DU DS3-TA02/10N-A230K1
	24 VDC	DU DS3-S3/10N-D24K1		24 VDC	DU DS3-TA23/10N-D24K1
	110 VAC	DU DS3-S3/10N-A110K1		110 VAC	DU DS3-TA23/10N-A110K1
	230 VAC	DU DS3-S3/10N-A230K1		230 VAC	DU DS3-TA23/10N-A230K1
	24 VDC	DU DS3-S4/10N-D24K1		24 VDC	DU DS3-TB/10N-D24K1
	110 VAC	DU DS3-S4/10N-A110K1		110 VAC	DU DS3-TB/10N-A110K1
	230 VAC	DU DS3-S4/10N-A230K1		230 VAC	DU DS3-TB/10N-A230K1
	24 VDC	DU DS3-S5/10N-D24K1		24 VDC	DU DS3-TB02/10N-D24K1
	110 VAC	DU DS3-S5/10N-A110K1		110 VAC	DU DS3-TB02/10N-A110K1
	230 VAC	DU DS3-S5/10N-A230K1		230 VAC	DU DS3-TB02/10N-A230K1
	24 VDC	DU DS3-S6/10N-D24K1		24 VDC	DU DS3-TB23/10N-D24K1
	110 VAC	DU DS3-S6/10N-A110K1		110 VAC	DU DS3-TB23/10N-A110K1
	230 VAC	DU DS3-S6/10N-A230K1		230 VAC	DU DS3-TB23/10N-A230K1
	24 VDC	DU DS3-S7/10N-D24K1		24 VDC	DU DS3-TB23/10N-D24K1
	110 VAC	DU DS3-S7/10N-A110K1		110 VAC	DU DS3-TB23/10N-A110K1
	230 VAC	DU DS3-S7/10N-A230K1		230 VAC	DU DS3-TB23/10N-A230K1
	24 VDC	DU DS3-S7/10N-D24K1		24 VDC	DU DS3-TB23/10N-D24K1
	110 VAC	DU DS3-S7/10N-A110K1		110 VAC	DU DS3-TB23/10N-A110K1
	230 VAC	DU DS3-S7/10N-A230K1		230 VAC	DU DS3-TB23/10N-A230K1
-	-	-	-	-	-

Accessories	Description		pcs per box	kg per box	Order Coder (1 Box)	
	Connector Poles : 2 + PG9	Standard	100	2.5	CN KA132000B9-100	
					Black	CN KA132000A9-100
					Grey	CN KA132V54T9-100
	DC Coil	12 V	1	0.5	DU C22-D12K1/10	
		24 V			DU C22-D24K1/10	
		110 V			DU C22-D110K1/10	
		220 V			DU C22-D220K1/10	
	AC Coil	24 V - 50 Hz	1	0.35	DU C20.6 - A24K1/10	
		110 V - 50 Hz / 120 V - 60 Hz			DU C20.6 - A110K1/10	
		230 V - 50 Hz / 240 V - 60 Hz			DU C20.6 - A230K1/10	

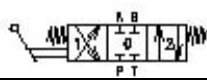
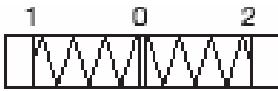
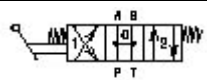
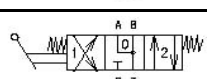

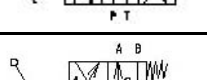
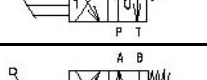
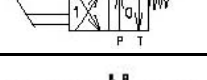
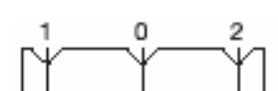
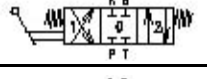

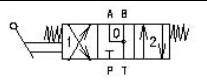


DS3 : Pmax. = 350 bar, Port T : Pmax. = 210 bar (DC) / 160 bar (AC), Qmax. = 100 l/min (DC) / 90 l/min (AC)

Hand Valves
Lever Actuated Control Valves
NG 6 / Cetop 3

Series :
DSH3 - *



Ordering Code :

Model	Symbol	Spool Type	Working Pressure	Weight
DU DSH3-S1/10N		 Spring Return Type	Max. Pressure 350 bar Port A, B, P Max. Pressure 320 bar Port T	2.1 kg
DU DSH3-S2/10N				
DU DSH3-S3/10N				
DU DSH3-S4/10N				
DU DSH3-TA/10N				
DU DSH3-TA002/10N				
DU DSH3-SK1/10N		 Locking Type		
DU DSH3-SK2/10N				
DU DSH3-SK3/10N				
DU DSH3-SK4/10N				
DU DSH3-TAK/10N				
DU DSH3-TAK002/10N				

Specification :

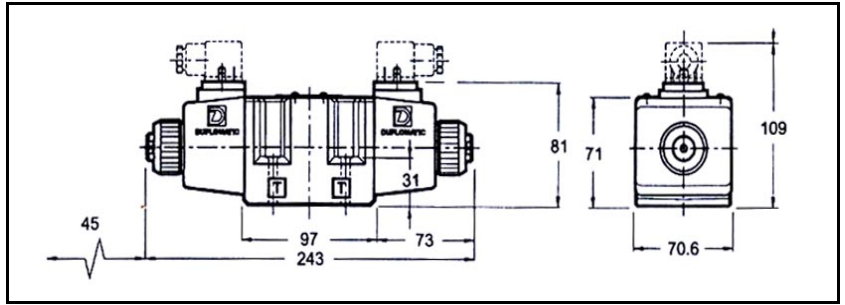
- Maximum Flow : From P Port To A - B - T 75 l/min
- Working Temperature : - 20 °C To + 70 °C
- Working Pressure : Port P - A - B, 350 bar
- : Port T, 320 bar

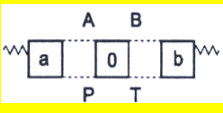





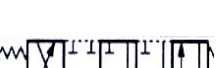
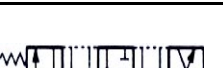
Directional Control Valves

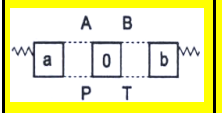
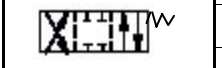




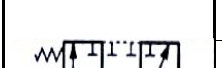
NG 10 / Cetop 5


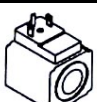
Series :

DS5 - *



Symbol	Voltage	Model
	24 VDC	DU DS5-S1/10N-D24K1
	110 VAC	DU DS5-S1/10N-A110K1
	230 VAC	DU DS5-S1/10N-A230K1
	24 VDC	DU DS5-S2/10N-D24K1
	110 VAC	DU DS5-S2/10N-A110K1
	230 VAC	DU DS5-S2/10N-A230K1
	24 VDC	DU DS5-S3/10N-D24K1
	110 VAC	DU DS5-S3/10N-A110K1
	230 VAC	DU DS5-S3/10N-A230K1
	24 VDC	DU DS5-S4/10N-D24K1
	110 VAC	DU DS5-S4/10N-A110K1
	230 VAC	DU DS5-S4/10N-A230K1
	24 VDC	DU DS5-S5/10N-D24K1
	110 VAC	DU DS5-S5/10N-A110K1
	230 VAC	DU DS5-S5/10N-A230K1
	24 VDC	DU DS5-S6/10N-D24K1
	110 VAC	DU DS5-S6/10N-A110K1
	230 VAC	DU DS5-S6/10N-A230K1
	24 VDC	DU DS5-S7/10N-D24K1
	110 VAC	DU DS5-S7/10N-A110K1
	230 VAC	DU DS5-S7/10N-A230K1

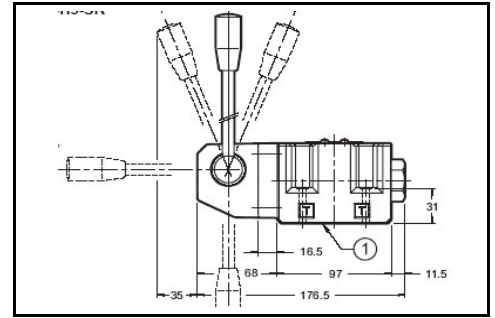
Symbol	Voltage	Model
	24 VDC	DU DS5-TA/10N-D24K1
	110 VAC	DU DS5-TA/10N-A110K1
	230 VAC	DU DS5-TA/10N-A230K1
	24 VDC	DU DS5-TA02/10N-D24K1
	110 VAC	DU DS5-TA02/10N-A110K1
	230 VAC	DU DS5-TA02/10N-A230K1
	24 VDC	DU DS5-TA23/10N-D24K1
	110 VAC	DU DS5-TA23/10N-A110K1
	230 VAC	DU DS5-TA23/10N-A230K1
	24 VDC	DU DS5-TB/10N-D24K1
	110 VAC	DU DS5-TB/10N-A110K1
	230 VAC	DU DS5-TB/10N-A230K1
	24 VDC	DU DS5-TB02/10N-D24K1
	110 VAC	DU DS5-TB02/10N-A110K1
	230 VAC	DU DS5-TB02/10N-A230K1
	24 VDC	DU DS5-TB23/10N-D24K1
	110 VAC	DU DS5-TB23/10N-A110K1
	230 VAC	DU DS5-TB23/10N-A230K1
	-	-

Accessories	Description	pcs per box	kg per box	Order Coder (1 Box)
	12 V	1	0.5	DU C31-D12K1/10
	24 V			DU C31-D24K1/10
	110 V			DU C31-D110K1/10
	220 V			DU C31-D220K1/10
	24 V - 50 Hz	1	0.35	DU C25.4-A24K1/10
	110 V - 50 Hz / 120 V - 60 Hz			DU C25.4-A110K1/10
	230 V - 50 Hz / 240 V - 60 Hz			DU C25.4-A230K1/10


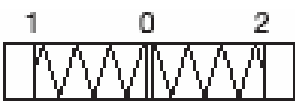
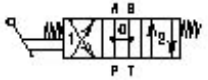
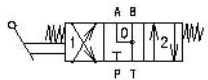
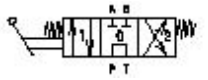
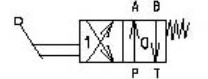

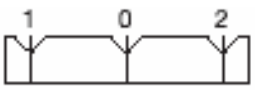

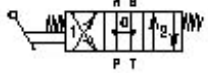
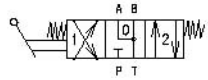
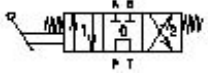
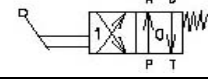
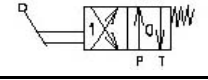
DS3 : Pmax. = 350 bar, Port T : Pmax. = 210 bar (DC) / 160 bar (AC), Qmax. = 100 l/min (DC) / 90 l/min (AC)

Hand Valves Directional Valve Lever Actuated NG10 / Cetop 5

Series :
DSH5-S*/10, DSH5-*TA*/10



Ordering Code :

Model	Symbol	Transition	Working Pressure	Weight
DU DSH5-S1/10N		 Spring Return Type	Max. Pressure 350 bar Port A, B, P Max. Pressure 320 bar Port T	4.2 kg
DU DSH5-S2/10N				
DU DSH5-S3/10N				
DU DSH5-S4/10N				
DU DSH5-TA/10N				
DU DSH5-TA002/10N		 Locking Type		
DU DSH5-SK1/10N				
DU DSH5-SK2/10N				
DU DSH5-SK3/10N				
DU DSH5-SK4/10N				
DU DSH5-TAK/10N				
DU DSH5-TAK002/10N				

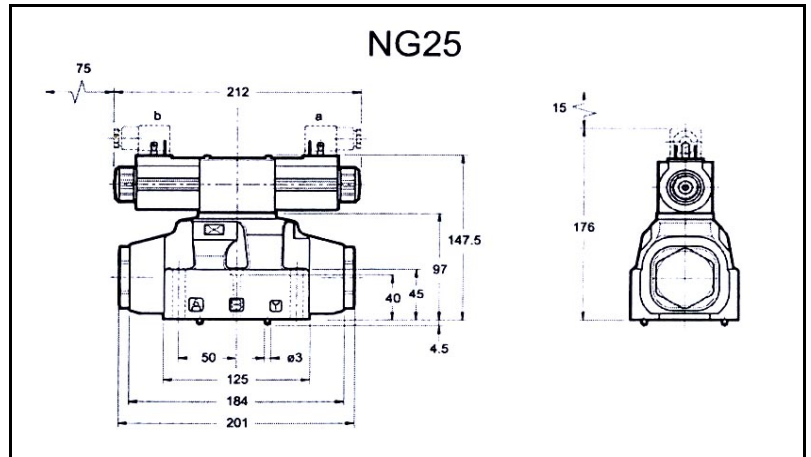
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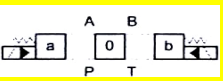
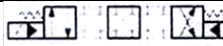



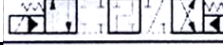
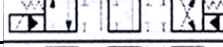


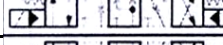


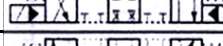
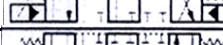
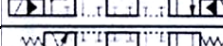
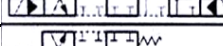
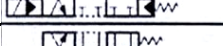
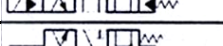
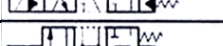


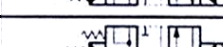
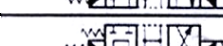




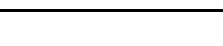
Maximum Flow : From P Port To A - B - T 120 l/min
 Working Temperature : - 20 °C To + 70 °C
 Working Pressure : Port P - A - B, 350 bar
 : Port T, 320 bar

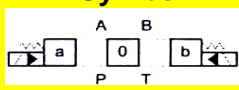
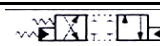


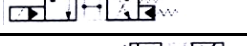

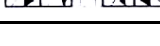
Directional Control Valves Pilot Operated, Without Pilot ¹⁾

NG 10 Cetop 05
NG 16 Cetop 07
NG 25 Cetop 08
NG 32 Cetop 10

Series :
CE4, DS07, CE5, DSO10



Symbol	NG 10 DU CE4- ①/E/43	NG 16 DU DS07- ①/10 NEE	NG 25 DU CE5- ①/E/34	NG 32 DU DS10- ①/10 NEE
	①	①	①	①
	S1	S1 ³⁾	S1	S1 ³⁾
	S2	S2 ³⁾	S2	S2 ³⁾
	S3	S3 ³⁾	S3	S3 ³⁾
	S4	S4 ³⁾	S4	S4 ³⁾
	S5	-	S5	-
	S6	S6 ³⁾	S6	-
	S7	S7 ³⁾	S7	-
	S8	S8 ³⁾	S8	-
	S9	S9 ³⁾	S9	-
	S10	S10 ³⁾	S10	-
	S11	S11 ³⁾	S11	-
	-	S12 ³⁾	-	-
	S18	-	S18	-
	-	S20	-	-
	-	S21	-	-
	1TA ³⁾	SA1	1TA ³⁾	SA1
	-	SA2	-	SA2
	-	SA3	-	SA3
	-	SA4	-	SA4
	1TC ³⁾	SB1	1TC ³⁾	SB1
	-	SB2	-	SB2
	-	SB3	-	SB3
	-	SB4	-	SB4
	TA	TA ³⁾	TA	TA ³⁾
	TA002	TA02 ³⁾	TA002	TA02 ³⁾
	23TC	TA23	23TC	-
	23TA	TB23	23TA	-

Symbol	NG 10	NG 16	NG 25	NG 32
	DU CE4- ①/E/43	DU DS07- ①/10 NEE	DU CES- ①/E/34	DU DS10- ①/10 NEE
	①	①	①	①
	-	TB	-	TB
	-	TB02	-	TB02
	TC	-	TC	-
	TC002	-	TC002	-
	RK	RK ³⁾	RK	RK ³⁾
	RK002	RK02 ³⁾	Rk002	RK02 ³⁾

- 1) For Piloting Please Use The Following NG6 Valves :
- 4/3 : DU DS3-S3...
 - 4/2 (*A*) : DU DS3-TA...
 - 4/2 (*B* , *C*) : DU DS3-TB...
 - 4/2 (RK) : DU DS3-RK...

2) Different Transition Position As Shown, See Main Catalogue Of DUPLOMATIC For Reference.

3) Symbol Mirrorwise From Shown

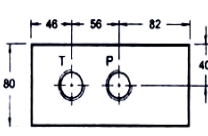
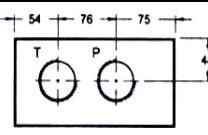
Pmax. = 320 bar, Weight : NG 10 = 6.6 kg, Weight : NG 16 = 8.6 kg, Weight : NG 25 = 13.6 kg, Weight : NG 32 = 48.0 kg

For Switching Time Control Use DU MERS-D / 50.

A Check Valve In Port P Is Required For Internal Piloting Of Symbols S2, S4, S7, S8, SA2, SA4, SB2, SB4. Order Codes On Reque

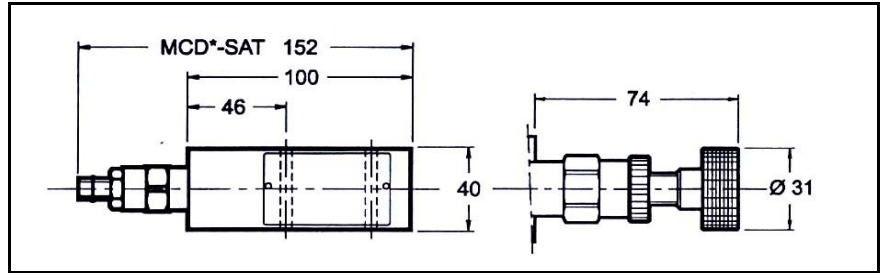
All Above Listed Valves Are Coming With 2 Plugs (Extenal Piloting + External Drain).

If Required Remove Plugs According To Your Application, Following The Instructions In The Main Catalogue Of DUPLOMATIC.

Accessories	Description	pcs per box	kg per box	Order Coder (1 Box)
	Subplates NG 16 Side Entry 1" BSP Pmax. = 320 bar Cast Steel X, Y, L : 1/4" BSP	1	11.5	DU 1961111
	Subplates NG 16 Side Entry 1-1/2" BSP Pmax. = 320 bar Cast Steel X, Y, L : 1/4" BSP	1	19	DU 1961141

Pressure Relief Valves Direct Operated NG 6 / Cetop 3

Series :
MCD



Symbol	P Adj. (bar)	Weight (kg)	DU MCD①-②/51N③	
			①	②
	25	1.4	3	SP
	140		4	
	210		5	
	350		6	
	25	1.4	3	SAT
	140		4	
	210		5	
	350		6	
	25	1.4	3	SBT
	140		4	
	210		5	
	350		6	

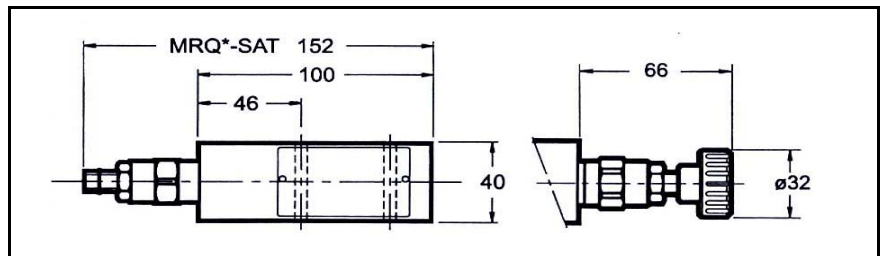
Symbol	P Adj. (bar)	Weight (kg)	DU MCD①-②/51N③	
			①	②
	25	2.0	3	DT
	140		4	
	210		5	
	350		6	
	25	2.0	3	D
	140		4	
	210		5	
	350		6	
	25	1.4	3	SB
	140		4	
	210		5	
	350		6	

③ : Omit For Hex Screw, For Handknob Use " / K "

Pmax. = 350 bar, Qmax. = 50 l/min (Controlled Lines ; Others 70 l/min), P = 35 bar At 25 l/min (e.g. MCD5)

Pressure Relief Valves Pilot Operated NG 6 / Cetop 3

Series :
MRQ



Symbol	P Adj. (bar)	Weight (kg)	DU MRQ①-②③/51	
			①	②
	70	1.4	3	SP
	140		4	
	210		5	
	350		6	
	70	1.4	3	SAT
	140		4	
	210		5	
	350		6	
	70	1.4	3	SBT
	140		4	
	210		5	
	350		6	

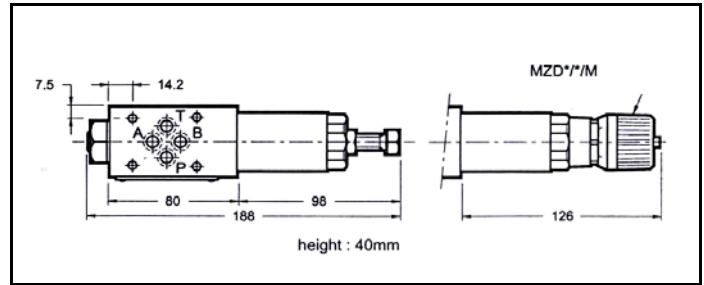
Symbol	P Adj. (bar)	Weight (kg)	DU MRQ①-②③/51	
			①	②
	70	2.1	3	DT
	140		4	
	210		5	
	350		6	
	70	2.1	3	D
	140		4	
	210		5	
	350		6	
	70	2.1	3	SB
	140		4	
	210		5	
	350		6	

③ : Omit For Hex Screw, For Handknob Use " / M1 "

Pmax. = 350 bar, Qmax. = 75 l/min (All Lines), P = 12 bar At 25 l/min

3 - Way Pressure Reducing Valves Direct Operated NG 6 / Cetop 3

Series :
MZD



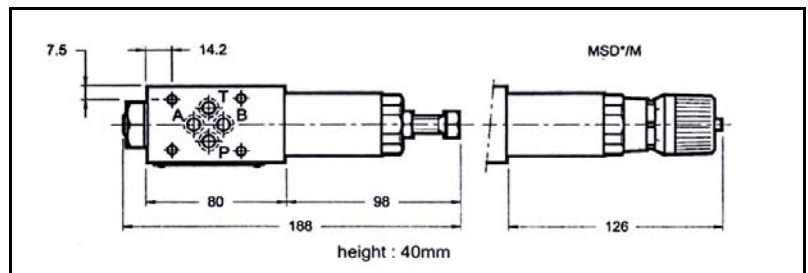
Symbol	P Adj. (bar)	Weight (kg)	DU MZD ①/②/③/50	
			①	②
	3 - 35	1.4	2	-
	10 - 70		3	
	30 - 140		4	
	50 - 280		5	
	3 - 35	1.4	2	/ A
	10 - 70		3	
	30 - 140		4	
	50 - 280		5	
	3 - 35	1.4	2	/ B
	10 - 70		3	
	30 - 140		4	
	50 - 280		5	

③ : Omit For Hex Screw, " / M " For SICBLOCK Knob. Control On Otherside On Request.

Pmax. = 350 bar, Port T : Pmax. = 10 bar, Qmax. = 100 l/min (Controlled Lines, Others 75 l/min), P = 7 bar At 25 l/min

Pressure Sequence Valves Direct Operated NG 6 / Cetop 3

Series :
MSD



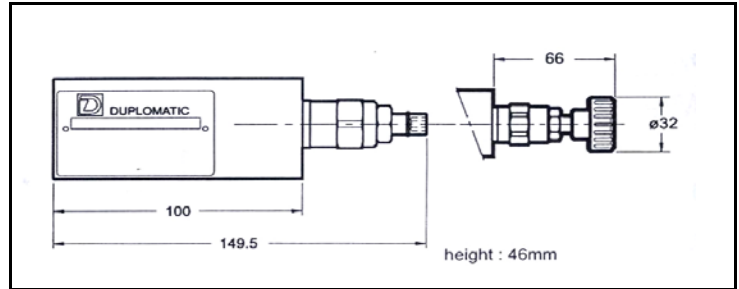
Symbol	P Adj. (bar)	Weight (kg)	DU MSD ①/②/50
			①
	10 - 70	1.4	3
	30 - 140		4
	50 - 280		5

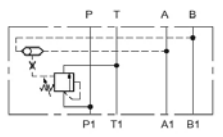
② : Omit For Hex Screw, " / M " For SICBLOC Knob

Pmax. = 350 bar, Port T : Pmax. = 10 bar, Qmax. = 100 l/min (Controlled Lines, Others 75 l/min), P = 7 bar At 25 l/min

3 - Way Pressure Compensated Direct Operated NG 6 / Cetop 3

Series :
PCM3

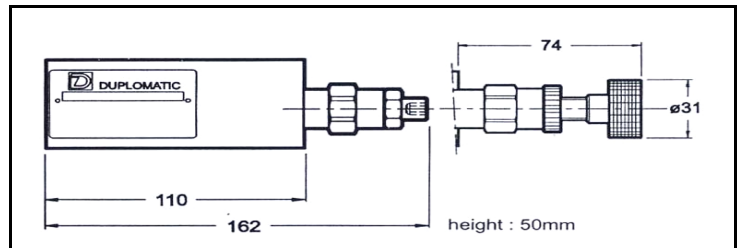


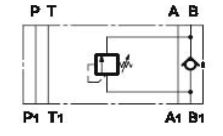
Symbol	P Adj. (bar)	Weight (kg)	DU PCM3 - PTV/10N/①	
			①	
	7-33	1.5	K1 = Hand Knob	

Pmax. = 350 bar, Qmax. = 40 l/min

Pressure Counter Balance Valves NG 6 / Cetop 3

Series :
PBM3



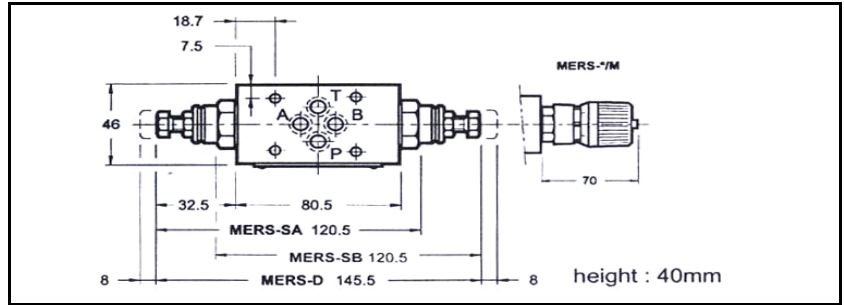
Symbol	P Adj. (bar)	Weight (kg)	DU PBM3 - SB/10N/①	
			①	
	25	1.6	2	S = Hex. Screw K1 = Hand Knob
	70		3	
	140		4	

Pmax. = 350 bar, Check Valve Cracking Pressure : 3.5 bar

Qmax. = 40 l/min (B - B1 At P = 8 bar), Qmax. = 50 l/min (B1 - B) ; P = 20 bar At 20 l/min (e.g. SB3)

Flow Control Valves With Flow Restrictor NG 6 / Cetop 3

Series :
MERS



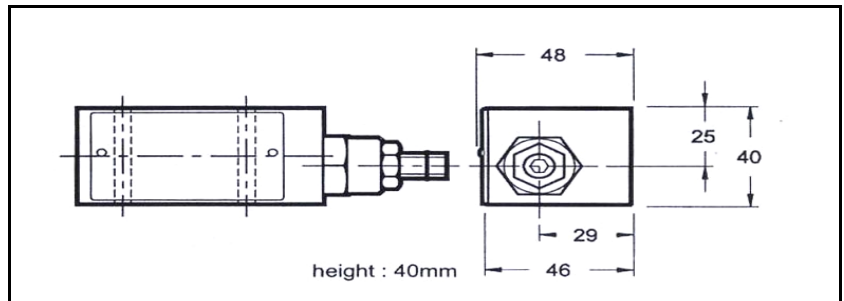
Symbol	Weight (kg)	DU MERS - ①②/50
		①
	1.3	SA
	1.3	SB

Symbol	Weight (kg)	DU MERS - ①②/50
		①
	1.3	D
	1.3	RD

- ② : Omit For Hex Screw Use " / M " For SICBLOC Knob
 Pmax. = 350 bar, Check Valves Cracking Pressure : 0.5 bar
 Qmax. = 50 l/min (Controlled Lines, Others 75 l/min)
 Qmin. <= 0.060 l/min At P = 10 bar

Check Valves With Flow Restrictor NG 6 / Cetop 3

Series :
MVR - RS/P

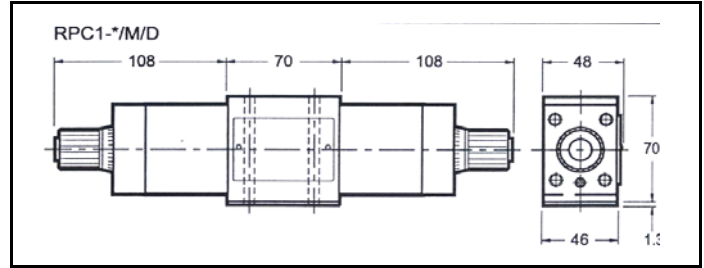


Symbol	Weight (kg)	Model
	1.1	DU MVR - RS/P/50

- Pmax. = 350 bar, Check Valves Cracking Pressure : 1 bar
 Qmax. = 50 l/min (Controlled Lines, Others 75 l/min)

Flow Compensated Control Valves NG 6 / Cetop 3

Series :
RPC1*/M



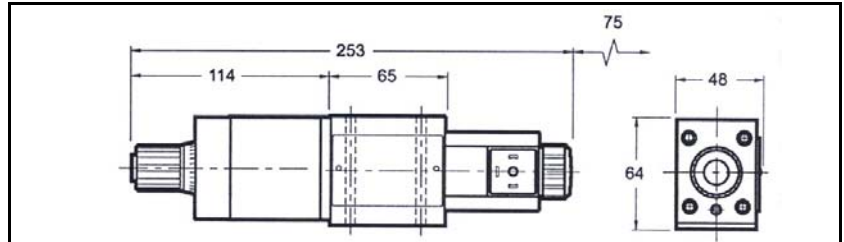
Symbol	Flow ① (l/min)	Weight (kg)	DU RPC1- ①/M/②③/10	
			②	
	1	3.0	P	
	4			
	10			
	16			
	22			
	1	3.0	A	
	4			
	10			
	16			
	22			
	1	3.0	B	
	4			
	10			
	16			
	22			

Symbol	Flow ① (l/min)	Weight (kg)	DU RPC1- ①/M/②③/10	
			②	
	1	4.1	D	
	4			
	10			
	16			
	22			
	1	3.0	T	
	4			
	10			
	16			
	22			
	1	3.7	PCT3	
	4			
	10			
	16			
	22			

③ : Omit For Hex Screw Use " / M1 " For Hand Knob
Pmax. = 250 bar, Qmax. As Per 1 (Controlled Lines, Free 65 l/min, Check Valve Lines 40 l/min)

Fast - Slow Electric Control Valves NG 6 / Cetop 3

Series :
RL1M



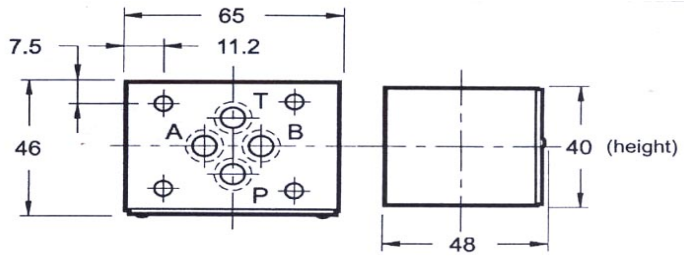
Symbol	Flow (l/min) ②	Weight (kg)	DU RL1M①-②/③/21/④/⑤			
					Voltage ④	
			①	③	= 12 VDC 24 VDC	-50 Hz 110 VAC 230 VAC
	1	3.0	A	A	D12	A110
	4					
	D24				A230	
						10
						16
	1	3.0	T	A	D12	A110
	4					
	D24				A230	
						10
						16

Symbol	Flow (l/min) ②	Weight (kg)	DU RL1M①-②/③/21/④/⑤			
					Voltage ④	
			①	③	= 12 VDC 24 VDC	-50 Hz 110 VAC 230 VAC
	1	3.0	A	A	D12	A110
	4					
	D24				A230	
						10
						16
	1	3.0	T	A	D12	A110
	4					
	D24				A230	
						10
						16

⑤ : Omit For Standard, Use " CM " For Manual Override Protection
Pmax. = 250 bar, Qmax. As Per 2 (For Controlled Lines 65 l/min) Qmin. < = 0.08 l/min

Check Valves Direct Operated NG 6 / Cetop 3

Series :
MVR



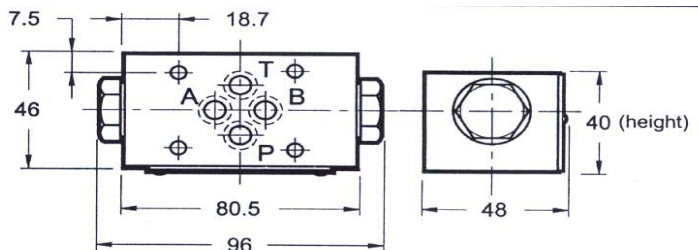
Symbol	Cracking (bar)	Weight (kg)	DU MVR ①②/51
	①		②
	1 = 0.5 3 = 5.2	1	SP
			SA
			ST

Symbol	Cracking (bar)	Weight (kg)	DU MVR ①②/51
	①		②
	1 = 0.5 3 = 5.2	1	SB
			SPT

Pmax. = 350 bar, Qmax. = 50 l/min (Check Valve, Others 75 l/min)

Check Valves Pilot Operated NG 6 / Cetop 3

Series :
MVPP



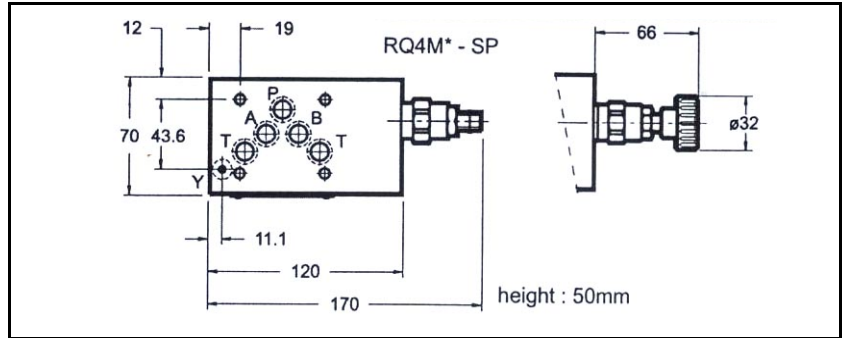
Symbol	Weight (kg)	DU MVPP①/50
		①
	1.3	SA
		SB
		D

Pmax. = 350 bar, Qmax. = 50 l/min (Check Valve, Others 75 l/min)

P (" D " At 30 l/min) = 5 bar (A1 -> A, B1 -> B), P = 10 bar (A -> A1, B -> B1), Area Ratio : 3, 4 : 1

Pressure Relief Valves Pilot Operated NG 10 / Cetop 5

Series :
RQ4M



Symbol	P Adj. (bar)	Weight (kg)	DU RQ4M①-②③/50	
			①	②
	70	2.8	3	SP
	140		4	
	210		5	
	320		6	
	70	2.8	3	SAT
	140		4	
	210		5	
	320		6	

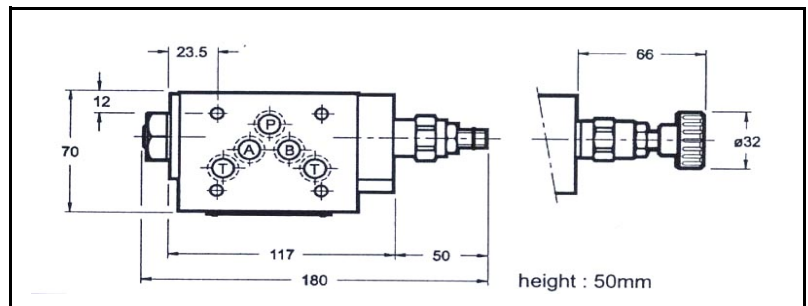
Symbol	P Adj. (bar)	Weight (kg)	DU RQ4M①-②③/50	
			①	②
	70	3.6	3	DT
	140		4	
	210		5	
	320		6	
	70	3.6	3	D
	140		4	
	210		5	
	320		6	

③ : Omit For Hex Screw, For Handknob Use " / M1 "

Pmax. = 320 bar, Qmax. = 100 l/min (All Lines), P = 9 bar At 50 l/min (e.g. RQ4M* - SP)

Pressure Reducing Valves Pilot Operated NG 10 / Cetop 5

Series :
Z4M



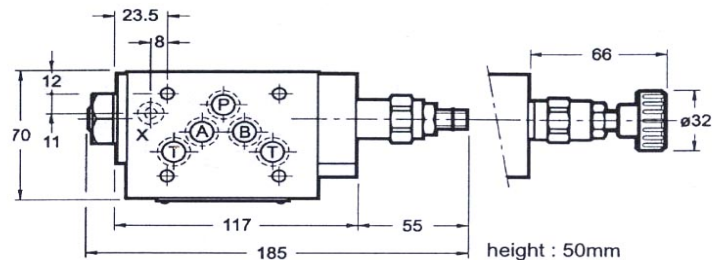
Symbol	P Adj. (bar)	Weight (kg)	DU Z4M①-②③/50	
			①	②
	5 - 70	2.7	3	I
	8 - 140		4	
	10 - 210		5	
	15 - 320		6	
	5 - 70	2.7	3	A
	8 - 140		4	
	10 - 210		5	
	15 - 320		6	
	5 - 70	2.7	3	B
	8 - 140		4	
	10 - 210		5	
	15 - 320		6	

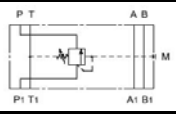
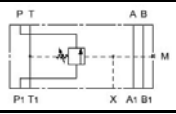
③ : Omit For Hex Screw, For Handknob Use " / M1 "

Pmax. = 320 bar, Qmax. = 80 l/min (P - Line, Others 100 l/min), Qleakage <= 0.7 l/min, P = 5.5 bar At 50 l/min

Sequence Valves Direct Operated NG 10 / Cetop 5

Series :
SD4M



Symbol	P Adj. (bar)	Weight (kg)	DU SD4M ①/②③/50	
			①	②
	< = 70	2.7	3	Omit
	< = 140		4	
	< = 120		5	
	< = 70	2.7	3	EI
	< = 140		4	
	< = 120		5	

EI : External Pilot, Internal Drain

2 : Ext. Piloting At Port X

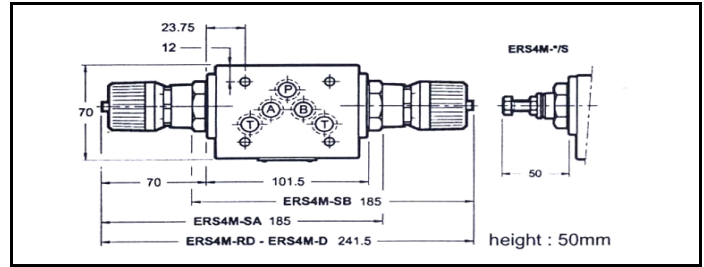
3 : Omit For Hex Screw, Use " / M1 " For Hand Knob

Pmax. = 320 bar, Qmax. = 80 l/min (Controlled Lines, Others 100 l/min)

P = 10 bar At 60 l/min (Controlled Lines, Others 2 bar)

Flow Control With Restrictor Valves NG 10 / Cetop 5

Series :
ERS4M



Symbol	Weight (kg)	DU ERS4M-①②/40/
		①
	3.1	SA
	3.1	SB

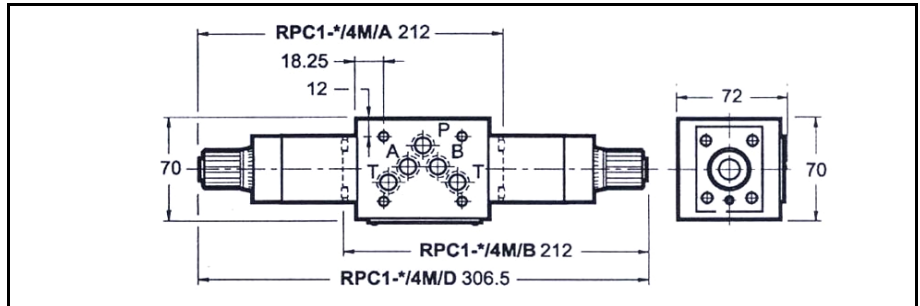
Symbol	Weight (kg)	DU ERS4M- ①②/40
		①
	3.1	D
	3.1	RD

- ② : Omit For SICBLOC Knob, Use " S " For Hex Screw
 Pmax. = 320 bar
 Check Valve Cracking Pressure 0.5 bar
 Qmax. = 80 l/min (Controlled Lines, Others 100 l/min)
 P (" RD " At 50 l/min) = 5.5 bar (A -> A1, B -> B1) ; (RD = Mer In)

Note : Rotate Clockwise To Increase Flow

Flow Control Valves Compensators NG 10 / Cetop 5

Series :
RPC1*/4M

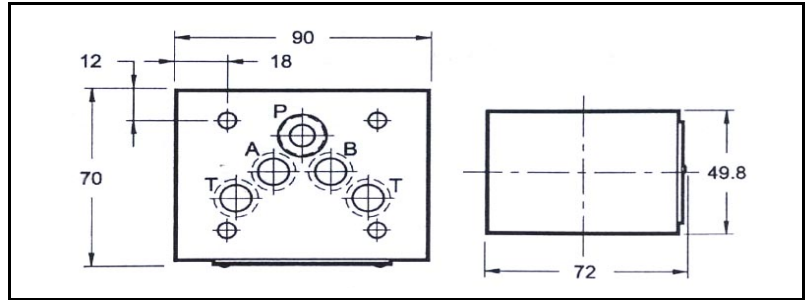


Symbol	Flow ① (l/min)	Weight (kg)	DU RPC1-①/4M ②/10
			②
	1	4.6	A
	4		
	10		
	16		
	22		
	1	4.6	B
	4		
	10		
	16		
	22		
	1	5.6	D
	4		
	10		
	16		
	22		
	30		

Pmax. = 250 bar, Qmax. As Per (Controlled Lines, Free Lines : 100 l/min, Check Valve Lines 40 l/min)

Check Valves Direct Operated NG 10 / Cetop 5

Series :
VR4M

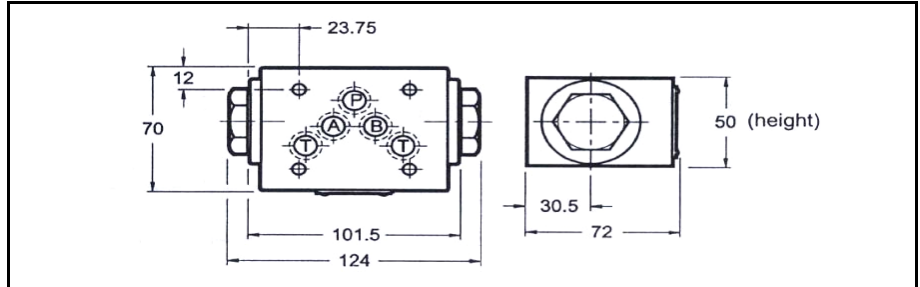


Symbol	Cracking Pressure	Weight (kg)	DU VR4M①-②/50
	①		②
	1 = 0.5 bar	2.3	SP
	4 = 0.8 bar	2.3	ST

Pmax. = 320 bar, Qmax. = 100 l/min (All Lines)

Check Valves Pilot Operated NG 10 / Cetop 5

Series :
VPP4M



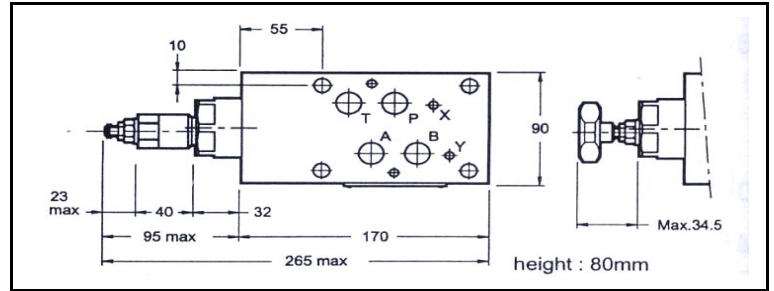
Symbol	Weight (kg)	DU VPP4M - ① / 40
		①
	7.2	SA
	7.2	SB
	7.3	D

Pmax. = 320 bar, Qmax. = 65 l/min (Check Valve Others 100 l/min)

P (" D " At 50 l/min) = 4 bar (A1 -> A, B1 -> B), P = 8 bar (A1, B -> B1), Area Ratio : 5.8 : 1

Pressure Relief Valves Pilot Operated NG 16 / Cetop 07

Series :
PRM7



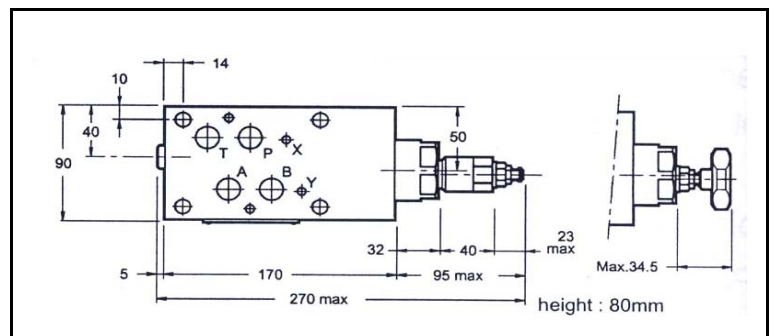
Symbol	P Adj. (bar)	Weight (kg)	DU PRM7 - PT①/10N②
			①
	15 - 160	8.5	4
	15 - 250		5
	15 - 350		6

② : " S " For Screw, " K " For Hand Knob

Pmax. = 350 bar, Qmax. = 300 l/min (All Lines), P = 50 bar At 200 l/min

Pressure Reducing Valves Pilot Operated NG 16 / Cetop 07

Series :
PZM7



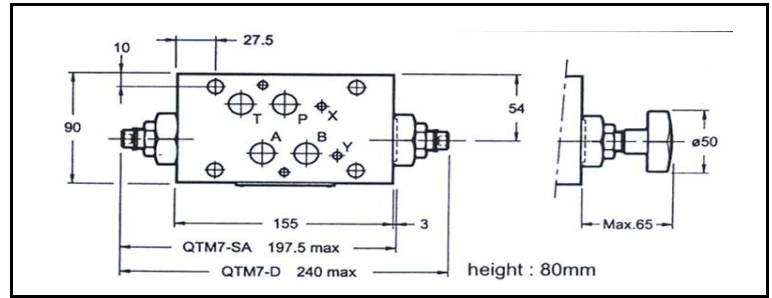
Symbol	P Adj. (bar)	②	Weight (kg)	DU PZM7 - ①②/10N③
				①
	15 - 100	3	8.65	P
	15 - 250	5		
	15 - 100	3	8.65	PA
	15 - 250	5		

③ : " S " For Hex Screw, " K " For Hand Knob

Pmax. = 350 bar, Qmax. = 250 l/min (All Lines), P = 17 bar At 200 l/min

Flow Restrictor Valves Pilot Operated NG 16 / Cetop 07

Series :
QTM7



Symbol	Weight (kg)	DU QTM7 - ①/10 - ②
		①
<p>X P T A B Y X1 P1 T1 A1 B1 Y1</p>	7.35	SA
<p>X P T A B Y X1 P1 T1 A1 B1 Y1</p>	7.7	D

② : " S " For Screw, " K " For Hand Knob

Pmax. = 350 bar, Qmax. = 250 l/min

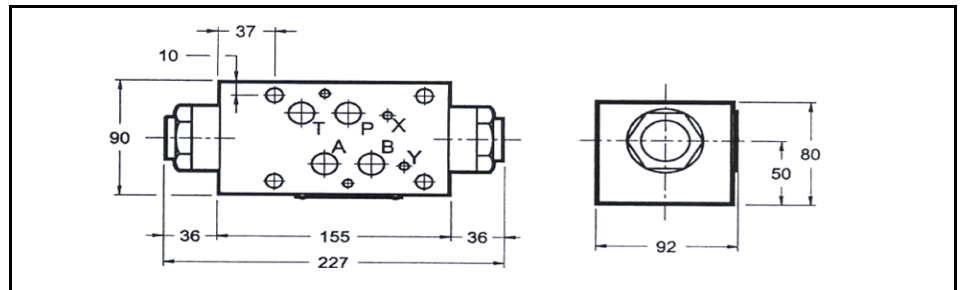
Leakage Flow With Closed Restrictor <= 0.5 l/min

Check Valve Cracking Pressure 0.7 bar

P = 12 bar At 200 l/min (Check Valve With Closed Restrictor)

Check Valves Pilot Operated NG 16 / Cetop 07

Series :
CHM7



Symbol	Weight (kg)	DU CHM7 - ①/10N
		①
<p>X P T A B Y X1 P1 T1 A1 B1 Y1</p>	7.2	SA
<p>X P T A B Y X1 P1 T1 A1 B1 Y1</p>	7.2	SB
<p>X P T A B Y X1 P1 T1 A1 B1 Y1</p>	7.3	D

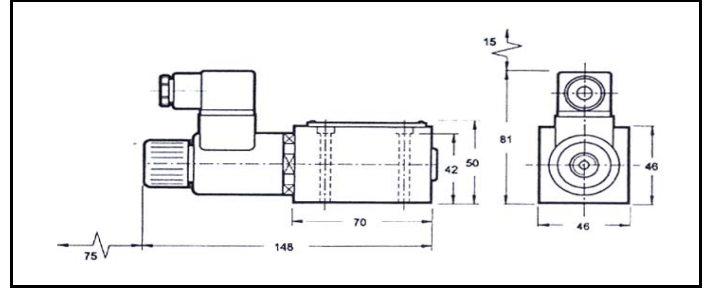
Pmax. = 350 bar, Qmax. = 250 l/min


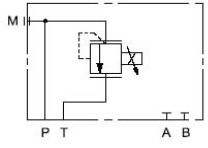
Opening Pressure 2 bar ; Area Ratio 13 : 1

P = 15 bar At 200 l/min (A1 -> A, B1 -> B)

Proportional Pressure Relief Valves Without Feedback NG 6 / Cetop 3

Series :
PRED3



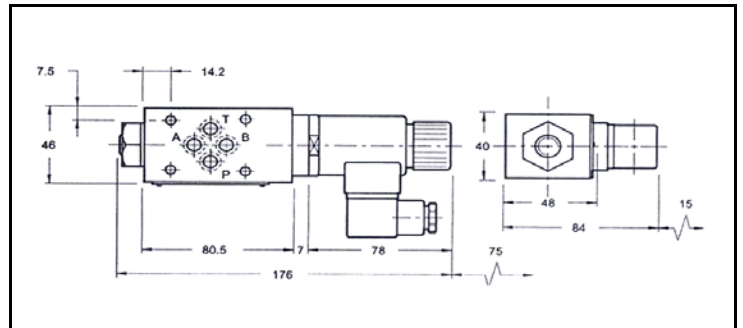
Symbol		P Max (bar)	Weight (kg)	DU PRED3-①/10N - D24/K1
				①
		350	1.4	070 = 0.7 - 70 bar
				140 = 1.1 - 140 bar
				210 = 1.8 - 210 bar
				350 = 2.8 - 350 bar


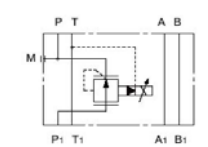
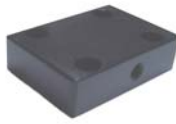
Pmax. = 350 bar (2 bar In " T "), Qmin. = 1 l/min, Qmax. = 3 l/min

Hysteresis : < 5% Of Prange, Repeatability : < + 2% Of Prange

Pressure Reducing Valves Pilot Operated Without Feedback NG 6 / Cetop 3

Series :
MZE



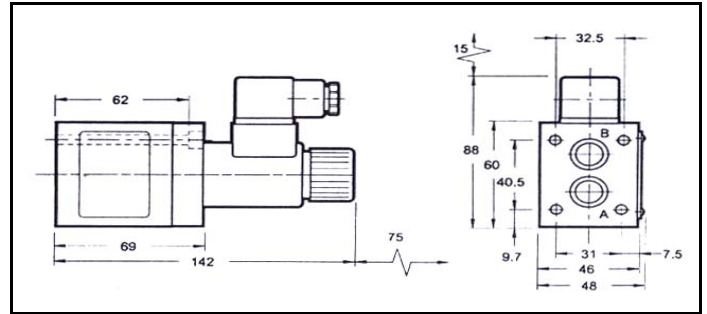
Symbol		P Adj. (bar)	Weight (kg)	DU MZE①/51 - 24
				①
		4 - 35	1.7	2
		5 - 70		3
		8 - 140		4
		10 - 210		5
	-	-	0.25	DU 1950751


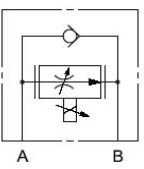
Pmax. = 320 bar, Qmax. = 30 l/min (Controlled Line, Others 50 l/min), Qmax. = 0.6 l/min

Hysteresis : < 6% Of Prange, Repeatability : < + 2.5% Of Prange

Proportional Flow Control Valves Direct Operated Without Feedback NG 6 / Cetop 3

Series :
RPCED1



Symbol		Flow (l/min)	Weight (kg)	DU RPCED1 - ①C/51 - 24
				①
	20 V (Nom.) 18.5 (At 20 °C) 0.7 A (Nom.)	1.5	1.5	1
		4		4
		8		8
		16		16
		25		25

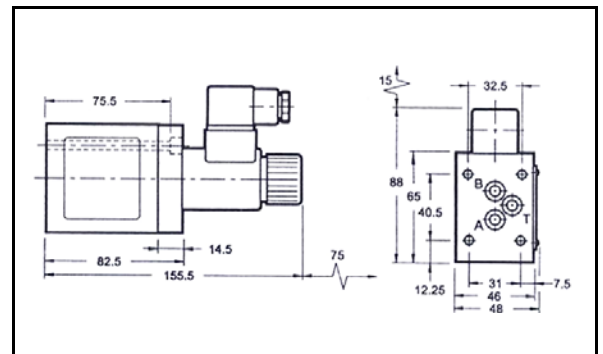
Pmax. = 250 bar, Qmax. As Per ① (Controlled Line, Check Valve 40 l/min)


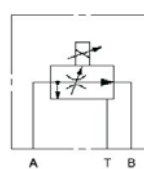
Pmin. = 10 bar

Hysteresis : < 6% Of Qrange, Repeatability : < + 2.5% Of Qrange

Proportional 3 - Way Flow Control Valves Direct Operated Without Feedback NG 6 / Cetop 3

Series :
RPCED1-*-1T3



Symbol		P Adj. (bar)	Weight (kg)	DU RPCED1 - ①/T3/51 - 24
				①
	20 V (Nom.) 18.5 (At 20 °C) 0.7 A (Nom.)	1.5	1.5	1
		4		4
		8		8
		16		16
		25		25

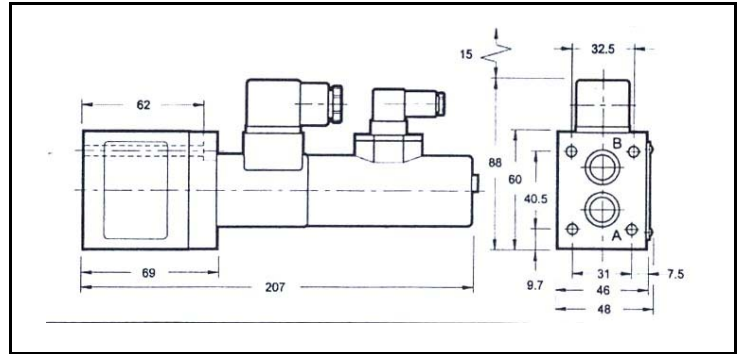
Pmax. = 250 bar, Qmax. As Per ① (Controlled Line, Check Valve 40 l/min)

Pmin. = 8 bar

Hysteresis : < 6% Qrange, Repeatability : < ± 2.5% Of Qrange

Proportional Flow Control Valves With Position Feedback NG 6 / Cetop 3

Series :
RPCER1



Symbol		Flow (l/min)	Weight (kg)	DU RPCER1 - ①/C/50 - 24
				①
	20 V (Nom.) 18.5 (At 20 °C) 0.7 A (Nom.)	1.5	2.9	1
		4		4
		8		8
		16		16

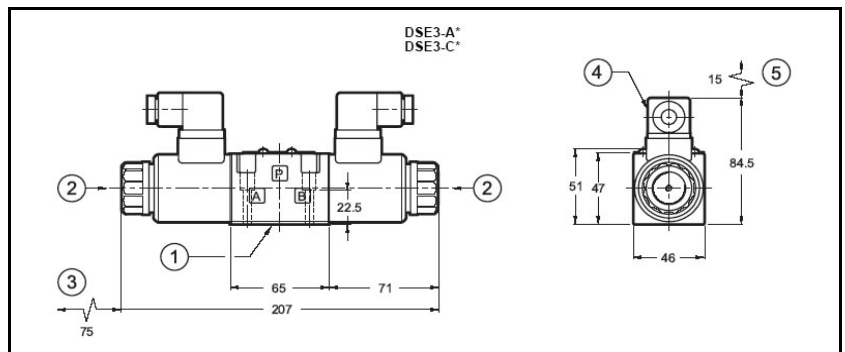
Pmax. = 250 bar, Qmax. As Per (Controlled Line, Check Valve 40 l/min)

Pmin. = 10 bar

Hysteresis : < 2.5% Of Qrange, Repeatability : < + 1% Of Qrange

Directional Control Valves Without Position Feedback NG 6 / Cetop 3

Series :
DSE3



Symbol	Flow Rate P = 10 bar (P - T) At	Weight (kg)	DU DSE3 - ①/10N - D24K1	
			①	Nom. Voltage 24 VDC
	26 l/min	2	C26	24 VDC
			A26	

Normally Flow = 26 l/min

Pmax. = 350 bar (140 bar For " T ")

Hysteresis : < 6% Of Qnom., Repeatability : < + 2% Of Qrange

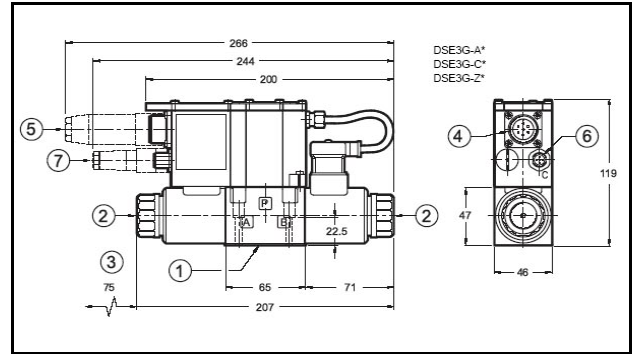
Proportional Directional Control Valves With Out Position Feedback

OBE (Onboard Electronics)

NG 6 / Cetop 3

Series :

DSE3G



Symbol	Flow Rate	Weight (kg)	DU DSE3G - ①/10N - D12K1	Spool Type
			①	
	26 l/min	2.4	C26	Closed Center
			Z26	Zero Overlap

Pmax. = 350 bar (140 bar For " T ")

Hysteresis : < 1% Of Qrange, Repeatability : < + 0.5% Of Qrange

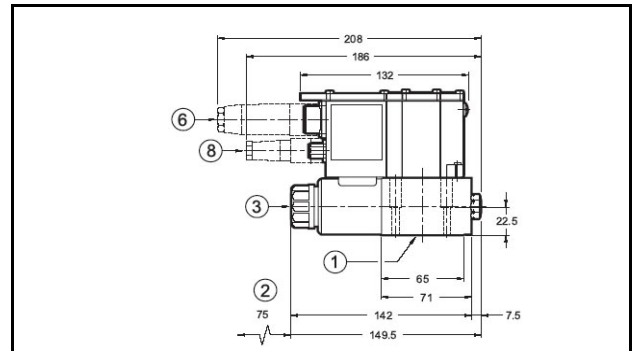
Proportional Pressure Control Valves With Out Position Feedback

OBE (Onboard Electronics)

NG 6 / Cetop 3

Series :

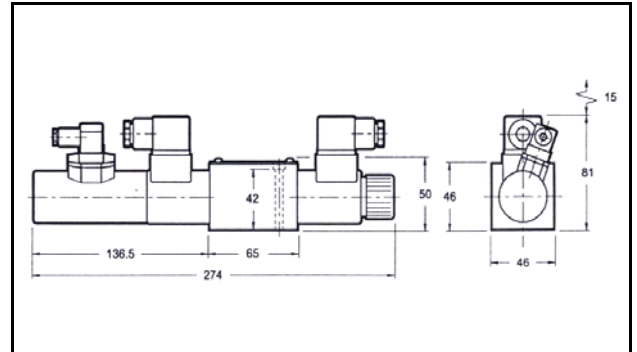
PRED3G

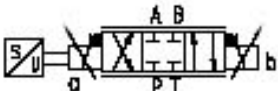


Symbol	Flow Rate	Weight (kg)	DU PRED3G - ①/11N - E0K11/B	Pmax (bar)
			①	
	Norminal Flow 1 l/min Max Flow 5 l/min	1.9	070 = 70 bar	350
			140 = 140 bar	
			210 = 210 bar	
			350 = 350 bar	

Proportional Directional Control Valves With Position Feedback NG 6 / Cetop 3

Series :
DSE3F



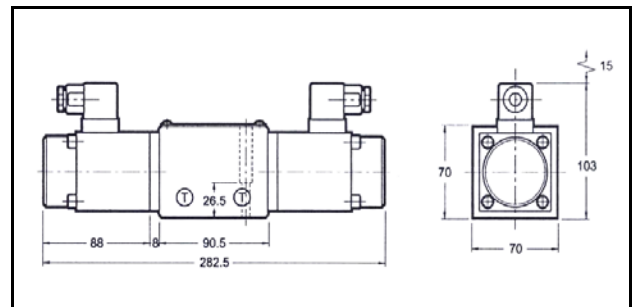
Symbol	Flow Rate	Weight (kg)	DU DSE3F - ①/10N - D12K1
			①
	16 l/min	1.9	C16
	26 l/min		C26

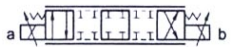


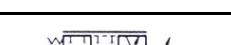
Pmax. = 350 bar (140 bar For " T ")

Hysteresis : < 1% Of Qrange, Repeatability : < + 0.5% Of Qrange

Proportional Directional Control Valves Without Position Feedback NG 10 / Cetop 5

Series :
D4E



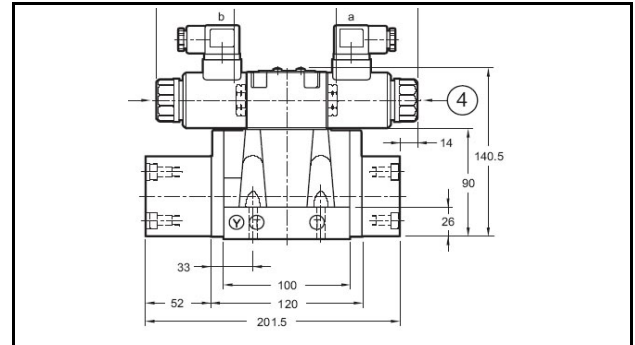
Symbol	Flow Rate ② P = 10 bar (P - T) At	Weight (kg)	DU D4E①/41 - 24
			①
	1 = 30 l/min 2 = 40 l/min 3 = 50 l/min	6.2	S12②
		6.2	S9②
		4.4	12②TA
		4.4	12②TC

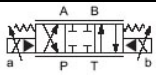
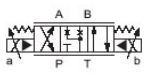
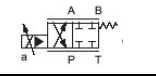
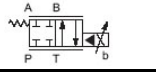
Pmax. = 250 bar (140 bar For " T ")

Hysteresis : < 6% Of Qrange, Repeatability : < + 0.2% Of Qrange

Proportional Directional Control Valves Direct Operated Without Position Feedback NG 10 / Cetop 5

Series :
DSPE5



Symbol	Flow Rate (P - T) At 10 bar	Weight (kg)	DU DSPE5-①/10N-II/D24K1
			①
	80 l/min	7.5	C80
		7.5	A80
		7.1	C80SA
		7.1	A80SB

Nominal Voltage : 24 VDC

Pmax. = 250 bar (2 bar For " T " For Internal Drain, 200 bar For " T " For External Drain)

Pilot Pressure : 20 bar To 250 bar

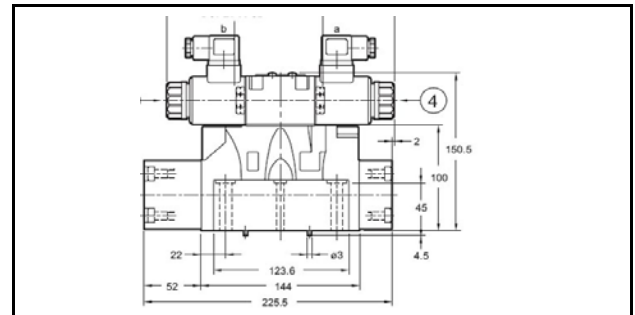
Hysteresis : < 8% Of Qnom., Repeatability : < + 2% Of Qnom

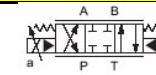

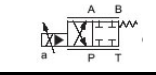
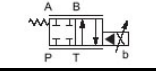
Valve Comes With 2 Plugs (External Pilot / Drain), Which Can Be Removed Individually For Internal Pilot / Drain.

See Diplomatic Catalogue !

Proportional Directional Control Valves Pilot Operated Without Position Feedback NG 16 / Cetop 7

Series :
DSPE7



Symbol	Flow Rate (P - T) At 10 bar	Weight (kg)	DU DSPE7-①/10N-II/D24K1
			①
	150 l/min	9.7	C80
		9.7	A80
		9.3	C80SA
		9.3	A80SB

Nominal Voltage : 24 VDC, Pilot Pressure : 20 bar To 250 bar

Pmax. = 250 bar (2 bar For " T " For Internal Drain, 200 bar For " T " For External Drain)

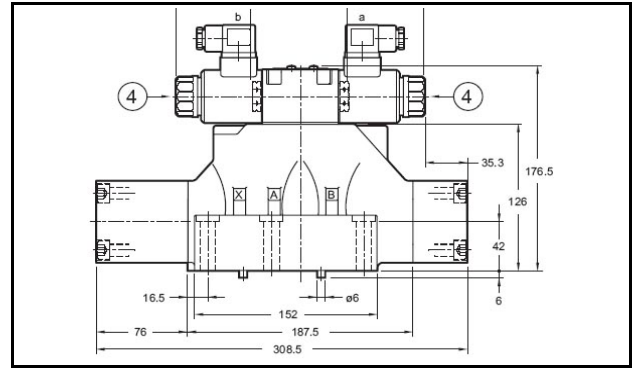
Hysteresis : < 8% Of Qnom., Repeatability : < + 2% Of Qnom

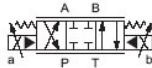
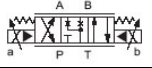

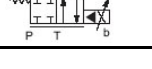
Valve Comes With 2 Plugs (External Pilot / Drain), Which Can Be Removed Individually For Internal Pilot / Drain.

Proportional Directional Control Valves

**Pilot Operated
Without Position Feedback
NG 25 / Cetop 8**

**Series :
DSPE8**



Symbol	Flow Rate (P - T) At 10 bar	Weight (kg)	DU DSPE8-①/10N-II/D24K1
			①
	300 l/min	16	C80
		16	A80
		15.6	C80SA
		15.6	A80SB

Nominal Voltage : 24 VDC

Pmax. = 250 bar (2 bar For " T " For Internal Drain, 200 bar For " T " For External Drain)

Pilot Pressure : 20 bar To 250 bar

Hysteresis : < 8% Of Qnom., Repeatability : < + 2% Of Qnom.

Valve Comes With 2 Plugs (External Pilot / Drain), Which Can Be Removed Individually For Internal Pilot / Drain.

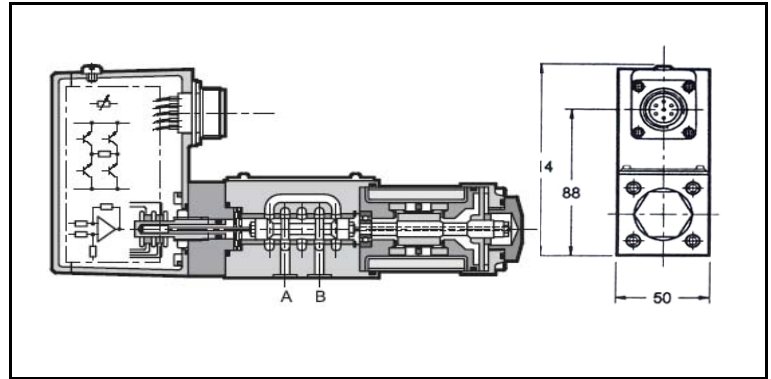
See Duplomatic Catalogue !

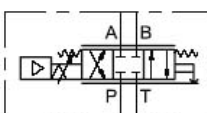
Servo Solenoid Valves With Integrated Electronics

NG 6 / Cetop 3

Series :

DXJ3



Symbol	Flow Rate	Weight (kg)	DU DXJ3 - D0L①/10N/E0K11
	P = 10 bar (P - T) At		①
	5 l/min	2.5	5
	10 l/min		10
	20 l/min		20
	40 l/min		40

Nominal Voltage : 24 VDC

Pmax. = 350 bar (50 bar At " T ")

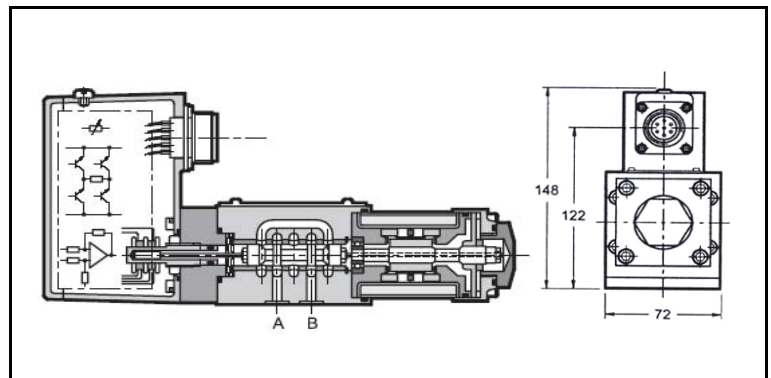
Hysteresis : < 0.2% Of Qnom., Reversal Span : < 0.1% Of Qnom, Thermal Drift : < 1.5% Of Qnom. (With T = 50°C)

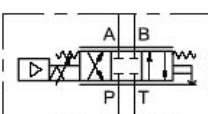
Servo Solenoid Valves With Integrated Electronics

NG 10 / Cetop 5

Series :

DXJ5



Symbol	Flow Rate	Weight (kg)	DU DXJ3-D0L①/10N/E0K11
	P = 10 bar (P - T) At		①
	60 l/min	6.3	60
	100 l/min		100

Nominal Voltage : 24 VDC

Pmax. = 350 bar (50 bar At " T ")

Hysteresis : < 0.2% Of Qnom., Reversal Span : < 0.1% Of Qnom., Thermal Drift : < 1.5% Of Qnom. (With T = 50 °C)

Quick Selection Charts Amplifiers

Series :

EPC, EPA, EPR, UEIK



Valve Type DU...	No. Of Coils	Imax. (A)	Position Feedback	Amplifier		
				Plug	Rail m.	Eurocard
CRE, PRED	1	0.82	No	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24
D4E-S*	2	1.20	No	2xDU EPC-120	DU EPA-M220/20	DU UEIK-22/51-24
D4E-**T*	1	1.20	No	DU EPC-120	DU EPA-M120/20	DU UEIK-12/51-24
E5E-S*, DSPE*-C (A)	2	0.82	No	2x DU EPC-110	DU EPA-M210/20	DU UEIK-21/51-24
E4E-**, DSPE**SA	1	0.82	No	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24
DSE3-S* (12 V)	2	1.36	No	2x DU EPC-130	DU EPA-M230/20	Not Avail.
DSE3-S* (24 V)	2	0.82	No	2x DU EPC-110	DU EPA-M210/20	DU UEIK-21/51-24
DSE3-T* (12 V)	1	1.36	No	DU EPC-130	DU EPA-M130/20	Not Avail.
DSE3-T* (24 V)	1	0.82	No	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24
DSE3F-C*	2	1.02	Yes	Not Avail.	DU EPR-S251/10E0	DU UEIK-21RSD/51-24
DSE3F-T*	1	1.02	Yes	Not Avail.	DU EPR-S152/10E0	DU UEIK-11RSQ/51-24
MZE	1	0.82	No	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24
RPCE07, RPCE08	2	0.82	No	2x DU EPC-110	DU EPA-M310/20	2x DU UEIK-11/51-24
RPCED1, RPCED1*-*, RPCE2-*, RPCE3-*	1	0.82	-	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24
RPCER1	1	1.02	Yes	Not Avail.	DU EPR-S150/10E0	DU UEIK-11RSQ/51-24
RQE*	1	0.82	No	DU EPC-110	DU EPA-M110/20	DU UEIK-11/51-24

For Details See Pages 27 - 29!

Quick Selection Charts Special Control Units

Series :

**EPR-P1, UEIK-PID
UFIK-2*RL**

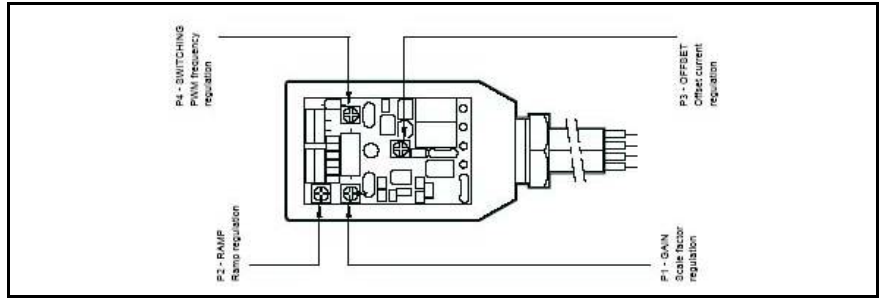


Function	For Valve Types	Order Code	System Requirements
Closed Loop Pressure Control Amplifier	RPED	DU EPR-P153/10E0	Pressure Valve, As Listed Pressure Transducer DU PT*/10E1-K10
	MZE	DU EPR P-154/10E0	
	RQE	DU EPR-P152/10E0	
4 Speeds + Ramps Amplifier	DSE3	-	4/3 Prop. Dir. Contr. Valve Without Pos. Feedback As Listed
	E4E-S*, E07E-S*, E5E-S*	DU UEIK-21RL/51-24	
	D4E-S*	DU UEIK-22RL/51-24	
Analog Position Control	All 4/3 Proportional Valves	DU UEIK-PID/10-24	4/3 Prop. Dir. Control Valve, Any Type Position Transducer Valve Amplifier

For Details See Pages 30 - 31!

Plug Types For Prop. Valves Without Pos. Feedback

Series :
EPC

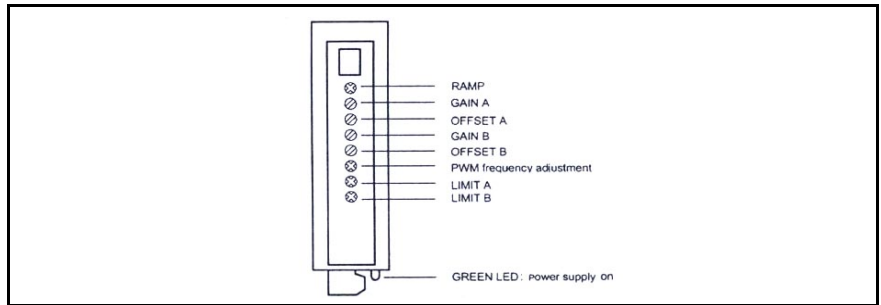


Symbol	I _{max.} ①	Frequency ②	Weight (kg)	Model
	1 = 0.8 A. 2 = 1.2 A 3 = 1.6 A	0 = 200 Hz 1 = 100 Hz 4 = 400 Hz	0.2	DU EPC-1 ①②/10 E0

Power Supply : 10 VDC To 30 VDC, Input : 0 V To 10 V At 100, Electrical Connection : DIN 43650, Protection Class IP67

Rail Mounting Types For Prop. Valves Without Pos. Feedback

Series :
EPA

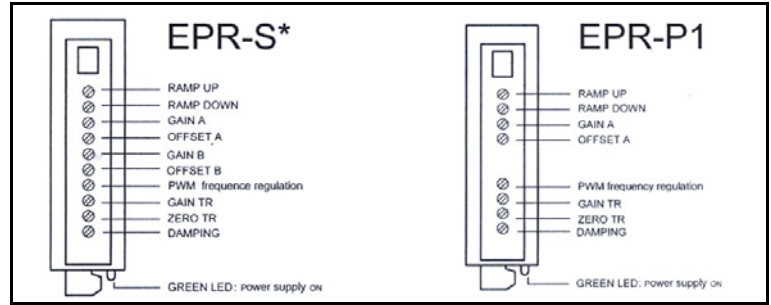


Symbol	I _{max.} ②	Frequency ③	Weight (kg)	DU EPA-M①②③/20
				①
				1
	1 = 0.8 A 2 = 1.2 A 3 = 1.6 A 4 = 2.0 A	0 = 200 Hz 1 = 100 Hz 4 = 400 Hz	0.15	2
				3

Power Supply : 10 VDC To 30 VDC, Input : 0 V To 10 V (M1 / M3) / - 10 V To + 10 V (M2), Plug - In Terminal Block (120 x 93 x 23 mm)

Rail Mounting Types For Proportional Valves Without Position Feedback

Series :
EPR



Symbol	Valve Type ②	Weight (kg)	DU EPR - ①②/10 E0
			①
	50 = RPCER1 52 = MD1ER-***T*	0.15	1
	51 = MD1ER-S*		2
	52 = RQE 53 = CDE 54 = MZE		P1 For Closed Loop Pressure Control (Pressure Transducer PT*/10E1 - K10 Required)

Power Supply : 10 VDC To 30 VDC, Input : 0 V To 10 V (M1 / M3) / - 10 V To + 10 V (M2), Plug - In Terminal Block (120 x 93 x 23 mm)

Eurocard Holders Phoenix Contacts

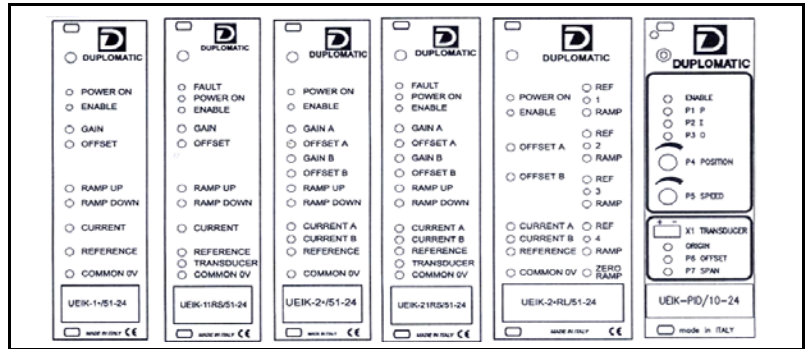
Series :
SKBI32



Symbol	Weight (kg)	DU SKBI32/D
	0.2	For Duplomatic Eurocards
Symbol	Weight (kg)	DU SKBI32/D
	0.2	For Bosch Eurocards

Eurocard Types For Proportional Valves

Series :
UEIK



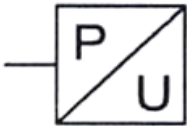
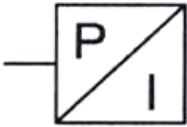
Symbol	No. Of Coils	I _{max} .	Input	Weight (kg)	DU UEIK - ①/51-24
					①
	1	0.8 A 1.2 A	4 mA To 20 mA Or 0 V To + 10 V	0.2	11 = Without Valve Feedback 12 = 100 x 160 x 35 mm
					11 RSQ = With Valve Feedback 100 x 160 x 35 mm
	2	0.8 A 1.2 A	4 mA To 20 mA Or 0 V To + 10 V	0.27	21 = Without Feedback 22 = 100 x 160 x 35 mm
					21 RSD = With Feedback 100 x 160 x 35 mm
		0.8 A 1.2 A	Coil a : 0 V To + 10 V Coil b : 0 V To - 10 V	0.3	Without Valve Feedback 21 RL = 4 Speeds + Ramps 22 RL = 100 x 160 x 50 mm
	(2)	-	4 mA To 20 mA Or 0 V To + 10 V	0.2	Analog Position Control Unit PID = (Without Valve Amplifier.) 100 x 160 x 40 mm

Power Supply : 10 VDC To 30 VDC, Input : 0 V To 10 V (M1 / M3) / - 10 V To + 10 V (M2), Plug - In Terminal Block (120 x 93 x 23 mm)

Pressure Transducers

Series :
PTH



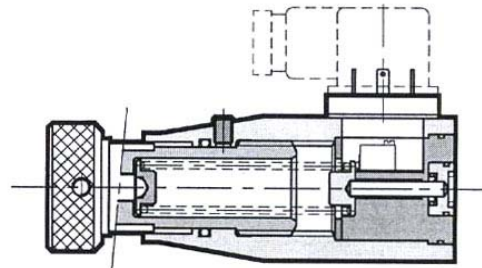
Symbol	Switching Pressure (bar)	①	Pmax. (bar)	Supply (VDC)	Weight (kg)	DU PTH①/20E②-K10
						Out Put Signal
	40	40	400	12 - 35	0.13	0 = 0 V To 10 V
	100	100				
	250	200				
	400	400		8 - 36		1 = 4 mA To 20 mA


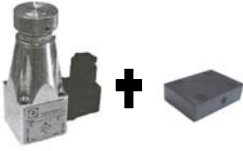
Stainless Steel, IP65, Typical Total Error : $\leq \pm 0.4\%$ Of Range, Zero Adjustment

Connection : 1/4" BSP With Integrated Seal, Response Time 10 ms, Working Temperature Range : - 20 °C To + 180 °C

Pressure Switches Piston Types

Series :
PS

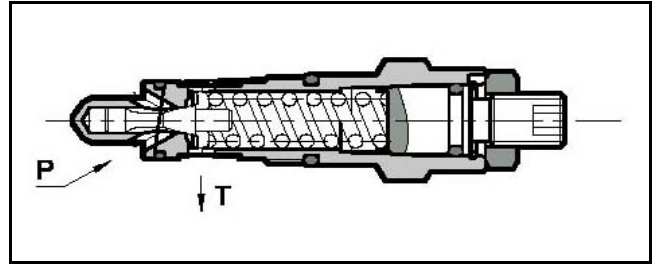


Symbol	P Adj. (bar)	②	Pmax. (bar)	Hysteresis (bar)	Weight (kg)	DU PS①②/20N - K1/K
						Mounting ①
	3 - 35	2	350	2.5	0.67	P = Subplate Or NG6 - Modular Valve Block
	6 - 140	6	350	4		
	10 - 350	4	650	9		T = 1/4" BSP Port
	20 - 630	8	650	20		

Repeatability : $\leq \pm 0.1\%$ Of Prange, Connection : DIN 43650, IP 65

Direct Operated Pressure Relief Valves

Series :
CR

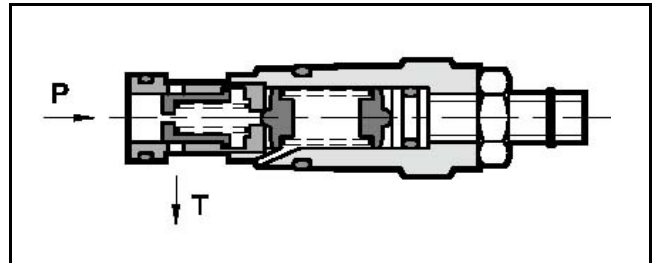


Symbol	Flow (l/min)	Weight (kg)	DU CR①/22N/②	
			P Adj. ①	②
	50	0.16	2 = 3 - 25 bar	K
			3 = 5 - 70 bar	
			4 = 10 - 140 bar	
			5 = 10 - 210 bar	
			6 = 10 - 350 bar	

② : Omit For Hex Screw, For Handknob Use " K " Pmax. = 350 bar

Pilot Operated Pressure Relief Valves

Series :
CRQ

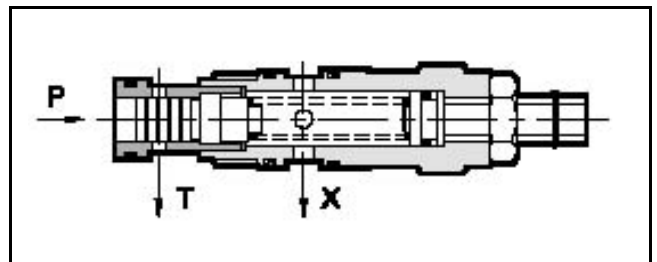


Symbol	Flow (l/min)	Weight (kg)	DU CRQ ①/②/12	
			P Adj. ①	②
	100	0.16	3 = 5 - 70 bar	M1
			4 = 5 - 140 bar	
			5 = 5 - 210 bar	
			6 = 5 - 350 bar	

② : Omit For Hex Screw, For Handknob Use " M1 " Pmax. = 350 bar

3 - Way Pilot Operated Pressure Relief Valves

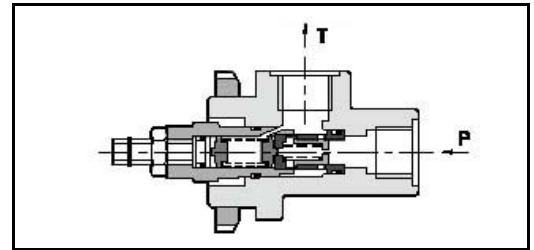
Series :
PCK06



Symbol	P Adj. (bar)	Flow (l/min)	Weight (kg)	DU PCK06 - PTV/10N/①
				①
	7 - 33	40	0.2	K1 = Adjustment Knob

Direct Operated Pressure Relief Valves

Series :
RM*-W

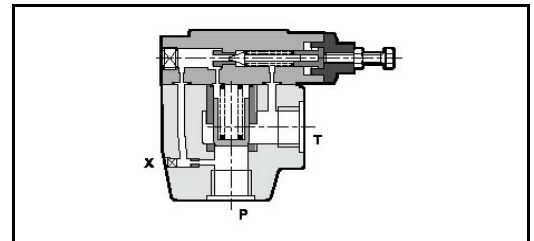


Symbol	Flow (l/min)	Size ①	DU RM① - ②/③/④		Adjustment ④
			P Adj. ②	③	
	50	2 = 3/8"	3 = 5 - 70 bar	31 = Size 2 30 = Size 3	K = Adjustment Knob For RM2-W M1 = Adjustment Knob For RM3-W
	70	3 = 1/2"	4 = 10 - 140 bar 5 = 20 - 210 bar 6 = 10 - 350 bar		

② : Omit For Hex Screw, For Handknob Use " M1 " Pmax. = 350 bar

Pressure Relief Valves Threaded Type

Series :
RQ5-W

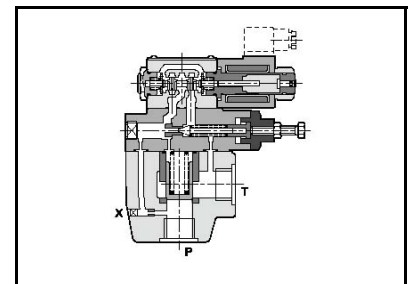


Symbol	Flow (l/min)	Weight (kg)	DU RQ5 - W①/②/41		Port Size		
			P Adj. ①	②	Inlet (P)	Outlet (T)	Remote (X)
	250	4.1	3 = 35 - 70 bar 5 = 35 - 210 bar 6 = 35 - 350 bar	M	3/4" BSP	1" BSP	1/4" BSP

② : Omit For Hex Screw, For Handknob Use " M " Pmax. = 350 bar

Electrically Operated Pressure Relief Valves With Unloading

Series :
RQM5-W

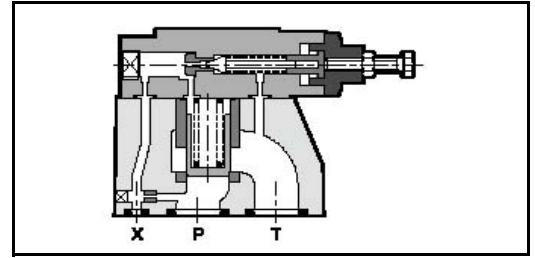


Symbol	Flow (l/min)	DU RQM5 - W①/②/51- *		Port Size		
		P Adj. (bar) ①	②	Inlet (P)	Outlet (T)	Remote (X)
RQM5-W*/A 	250	3 = 35 - 70 5 = 35 - 210 6 = 35 - 350	A	3/4" BSP	1" BSP	1/4" BSP
RQM5-W*/B 			B			
RQM5-W*/C 			C			

" * " For Electrical Supply Features 24 VDC Or 230 VAC

Pressure Relief Valves Subplate Mounting

Series :
RQ*-P

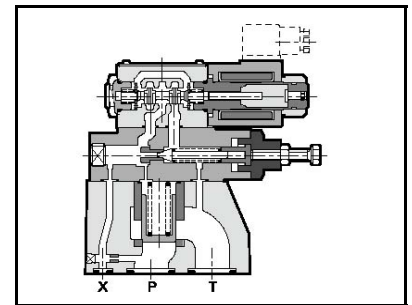


Symbol	Flow (l/min)	Weight (kg)	Size	DU RQ① - P②/③/41	
			①	P Adj. ②	③
	250	4.1	3 = NG16	3 = 35 - 70 bar	M
			5 = NG25	5 = 35 - 210 bar	
			7 = NG32	6 = 35 - 350 bar	

③ : Omit For Hex Screw, For SICBLOCK Knob Use " M ", Pmax. = 350 bar

Electrically Operated Pressure Relief Valve With Unloading

Series :
RQM*-P



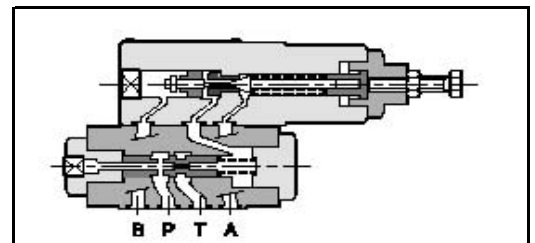
Symbol	Flow (l/min)	Size	DU RQM① - P②/③/④/51 - *	
		①	P Adj. ②	③
RQM*P*/A 	200	3 = NG16	3 = 35 - 70 bar	A
RQM*P*/B 				B
RQM*P*/C 				C
	400	5 = NG25	5 = 35 - 210 bar	
	500	7 = NG32	6 = 35 - 350 bar	

④ : Omit For Hex Screw, For SICBLOCK Knob Use " M ", Pmax. = 350 bar

" * " For Electrical Supply Features 24 VDC Or 230 VAC

Unloading Valves NG6 (Fore Circuit With Accumulator)

Series :
MRQA

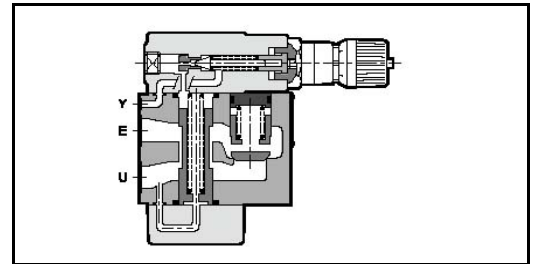


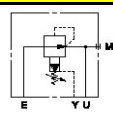
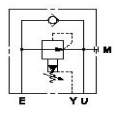
Symbol	Flow (l/min)	P Adj.	DU MRQA - ①/②/③/④/42		
		①	②	③	④
	40	3 = 25 - 70	1 = Pump Swith On At 78%	M	C
		5 = 50 - 210	2 = Pump Swith On At 68%		
		6 = 100 - 350			

③ : Omit For Hex Screw, For SICBLOCK Knob Use " M ", Pmax. = 350 bar, ④ = Check Valve Use " C ", Omit If Not Required

Pressure Reducing Valves Subplate Mounting

Series :
Z*P



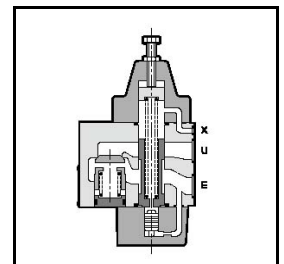
Symbol	P Adj. (bar)	Flow (l/min)	Weight (kg)	Size ①	DU Z①P5②/③/22	
					②	③
	5 - 210	40	3.9	3 = NG16	R	Omit
		110	6.1	5 = NG25		
	5 - 210	40	3.9	3 = NG16		C
		110	6.1	5 = NG25		

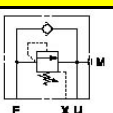
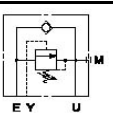
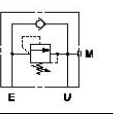
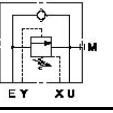
② : R = Reduced Drainage (Omit If Not Required), Pmax. = 350 bar

③ : Omit If Not Required, With Check Valve Use " C "

Pressure Valves Subplate Mounting

Series :
S*-P, U*-P, T*-P, X*-P



Symbol	Valve Type	Size	Flow (l/min)	Weight (kg)	DU ①② - P③/④/20	
	①	②			P Adj. ③	④
S*-P 	S U T X	3 = NG 16	60	5.8	4 = 10 - 35 bar 5 = 15 - 70 bar 6 = 35 - 140 bar	C
U*-P 						
T*-P 		5 = NG 25				
X*-P 						

Remark :

S = Sequence Valve

U = Unloading Valve

T = Backpressure Valve

X = Balancing Valve

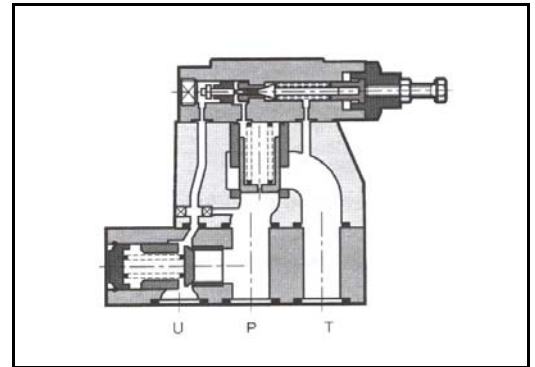
Maximum Operating Pressure 320 bar

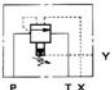
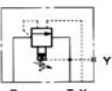
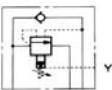
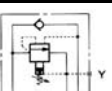
④ = " C " Check Valve For Free Flow From U To E Cracking Pressure 0.5 bar (Omit For Version Without Check Valve)

Unloading Valves (For Circuit With Accumulator) Subplate Mounting

Series :

RQR*- P, RQA*- P



Symbol	Valve Type ①	Size ②	Flow (l/min)	DU RQ①② - P③/1/④/40	
				P Adj. ③	④
RQR 	R = For Remote Piloting A = With Check Valve	3 = RQR3-P (NG16) 5 = RQR5-P (NG25) 5 = RQA5-P (NG25) 7 = RQR7-P (NG32) 7 = RQRA-P (NG32)	NG16 = 100 NG25 = 200 NG32 = 300	3 = 25 - 70 bar 5 = 50 - 210 bar 6 = 100 - 350 bar	M = For Adjustment SIBLOCK Knob Omit = For Hex Screw
RQR*/I 					
RQA 					
RQA*/I 					

Maximum Operating Pressure 320 bar

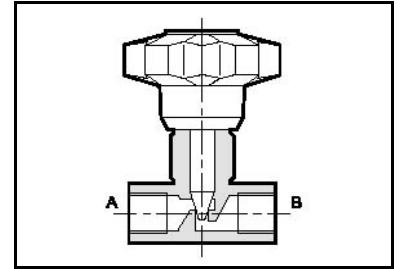
Remark : RQR*- P For Remote Piloting

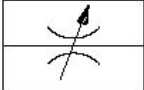
RQA*- P With Incorporated Check Valve

2 - Way Flow Control Valves

Series :

RS*



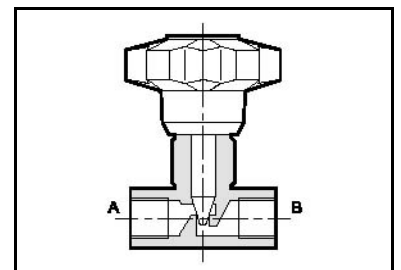
Symbol	Pressure (bar)	Flow (l/min)	Weight (kg)	DU RS①-②/30	
				Port ①	②
	400	15	0.2	2 = 1/4"	Omit
		30	0.4	3 = 3/8"	
		50	0.6	4 = 1/2"	
		80	1.3	5 = 3/4"	
	320	150	2.6	6 = 1"	
		200	3	7 = 1-1/4"	
		220	4.2	8 = 1-1/2"	

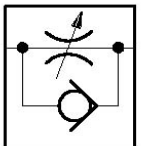
② : Omit For Threaded Type, Cartridge Type Use " I "

One - Way Flow Control Valves

Series :

RSN*



Symbol	Pressure (bar)	Flow (l/min)	Weight (kg)	DU RSN①/②30	
				Port ①	②
	400	15	0.25	2 = 1/4"	Omit
		30	0.5	3 = 3/8"	
		50	0.75	4 = 1/2"	
		80	1.6	5 = 3/4"	
	320	150	3.05	6 = 1"	
		200	3.75	7 = 1-1/4"	
		220	5.75	8 = 1-1/2"	

② : Omit For Threaded Type, Cartridge Type Use " I "

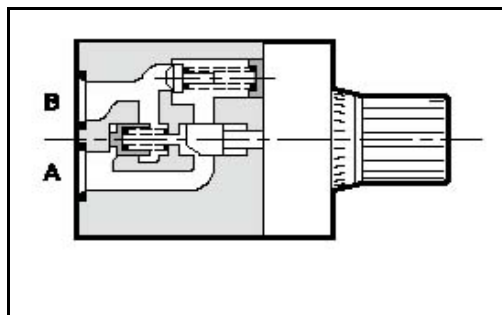
Compensated Flow Control Valves

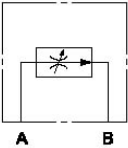
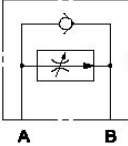
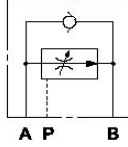
Pressure And Temperature

NG 6 / Cetop 3

Series :

RPC1



Symbol	Flow ① (l/min)	Weight (kg)	DU RPC1-①/②T③/④/41		
			②	③	④
RPC1-*/T 	0.5	1.3	Omit	Omit	Omit Or M
	1				
	4				
	10				
	16				
	22				
RPC1-*/CT 	0.5		C	Omit	
	1				
	4				
	10				
	16				
	22				
RPC1-*/CTX 	0.5		C	X	
	1				
	4				
	10				
	16				
	22				
30					

② : Omit If Not Required, Incorporated Check Valve Use " C "

③ : Omit If Not Required, With Speed Anti - Jump Port P, Available Only In The Check Valve Version

④ : Omit For Three - Turn Adjustment, Single - Turn Adjustment Knob Use " M "

Maximum Operated Pressure 250 bar

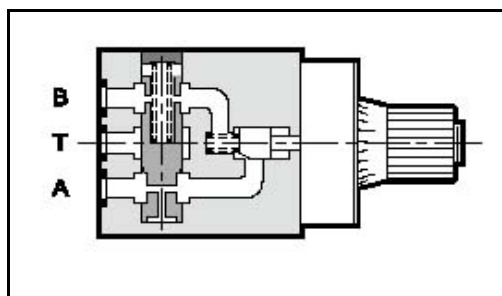
Compensated Flow Control Valves

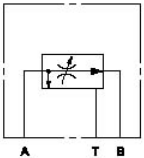
Pressure And Temperature

NG 6 / Cetop 3

Series :

RPC1-T3



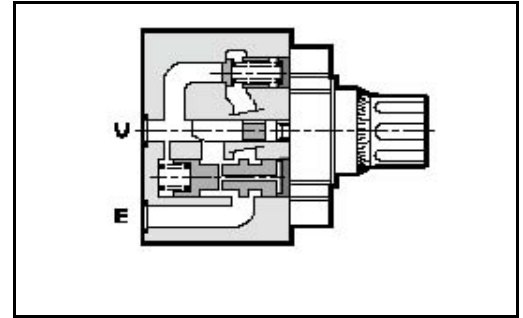
Symbol	Flow ① (l/min)	Weight (kg)	DU RPC1- ①/T3/②/41
			②
	1	1.5	M = Single - Turn Adjustment Knob (Omit For Three - Turn Adjustment)
	4		
	10		
	16		
	22		

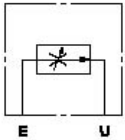
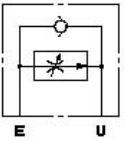
① : Normally Flow Rate

Maximum Operated Pressure 250 bar

Compensated Flow Control Valves Pressure And Temperature Cetop 06, Cetop 07

Series :
RPC*



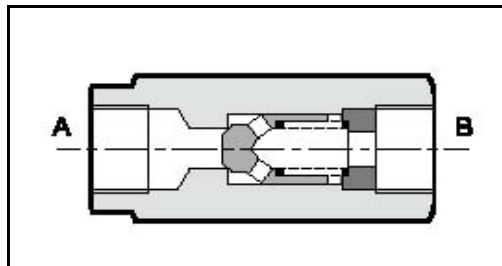
Symbol	Size	Check Valve	Flow (l/min)		DU RPC①-②T③/④/⑤/⑥		Series No.
	①	②	③		④	⑤	⑥
	2 = NG10 3 = NG25	C	Cetop 06	Cetop 07	RC	M = Single - Turn Adjustment Knob (Omit For Six - Turn Adjustment)	31
			Size 2 N = 22 S = 38 70 = 70	Size 3 N = 100 S = 150			43

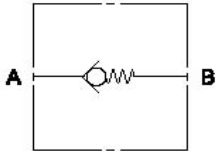
Remark :

- ② : Omit If Not Required, For Check Valve Use " C "
- ④ : RC = Compensating Stroke Governor (Omit For Not Required)
- ⑥ : Series No. 31 For Size 2, Series No. 43 For Size 3

Check Valves Threaded Type

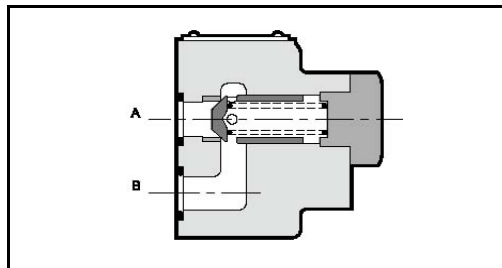
Series :
VD*-W*




Symbol	Size	Flow (l/min)	Weight (kg)	DU VD① - W②/30
	①			Cracking Pressure ②
	2 = 1/4"	25	0.17	1 = 0.35 bar 2 = 2 bar T4 = 4 bar 3 = 6 bar 4 = 10 bar
	3 = 3/8"	40	0.26	
	4 = 1/2"	75	0.41	
	5 = 3/4"	125	0.6	
	6 = 1"	200	1.2	
	7 = 1-1/4"	280	1.8	
	8 = 1-1/2"	650	3.2	
	9 = 2"	850	4.8	

Check Valves Subplate Mounting

Series :
VR*-P

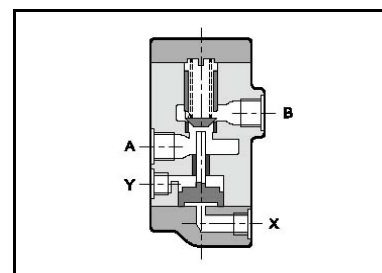


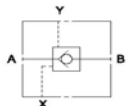
Symbol	Size	Flow (l/min)	Weight (kg)	DU VR①-P②/10
	①			Cracking Pressure ②
	3 = 3/8"	100	2.3	1 = 0.5 bar 3 = 5 bar 4 = 10 bar
	5 = 3/4"	200	4.8	
	7 = 1-1/4"	400	9	

Maximum Operated Pressure 350 bar

Hydro - Pilot Operated Check Valves, Threaded Type

Series :
VP*-W*-MU



Symbol	Size	Flow (l/min)	Weight (kg)	DU VP① - W②③-MU/12	
	①			Pilot Pressure ②	③
	3 = 3/8"	50	3.1	2 = 3.5 bar	P
	5 = 3/4"	100	4.4	3 = 5 bar	

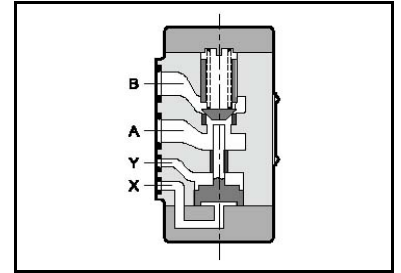
③ : Omit If Not Required, Decompression Device Use " P "


Maximum Operated Pressure 350 bar

Hydro - Pilot Operated Check Valves, Subplate Type

Series :

VP*-P*-MU



Symbol	Size	Flow (l/min)	Weight (kg)	DU VP ① - P②③ - MU/12	
	①			Pilot Pressure ②	③
	3 = NG16	50	3.1	2 = 3.5 bar	P
	5 = NG25	100	4.4	3 = 5 bar	

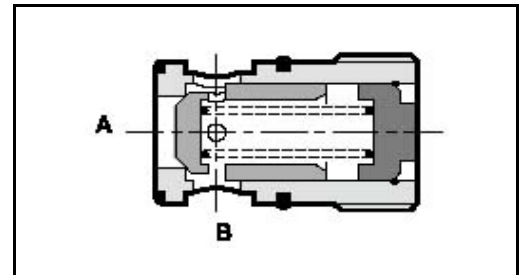
③ : Omit If Not Required, Decompression Device Use " P "

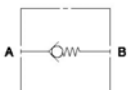
Maximum Operated Pressure 350 bar

Check Valves Cartridge Type

Series :

VR*-I



Symbol	Size	Flow (l/min)	Weight (kg)	DU VR①-I②/32	
	①			Cracking Pressure ②	
	2 = 1/4"	50	0.1	1 = 0.5 bar	
	5 = 3/4"	150	0.2	3 = 5 bar	
	7 = 1-1/4"	300	0.8	4 = 10 bar	

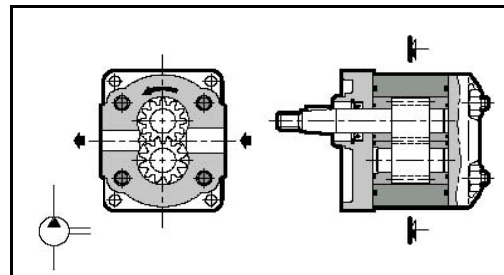
Maximum Operated Pressure 350 bar

External Gear Pumps

Series 10

Series :

GP



Model	Delivery (cc/rev)	Working / Peak Pressure (bar)	Speed Range		Port Size		Weight (kg)
			Max.	Min.	Outlet	Inlet	
GP1-0013R00B/10N	1.3	220 / 260	6,000	500	3/8"	1/2"	1.6
GP1-0020R00B/10N	2						
GP1-0027R00B/10N	2.7						
GP1-0034R00B/10N	3.4						
GP1-0041R00B/10N	4.1	210 / 250	4,000	500	1/2"	1/2"	1.6
GP1-0051R00B/10N	5.1						
GP1-0061R00B/10N	6.1	200 / 240	3,800	500	1/2"	1/2"	3.2
GP2-0070R00B/10N	7	230 / 270	4,000				
GP2-0095R00B/10N	9.5	220 / 260	3,000				
GP2-0113R00B/10N	11.3						
GP2-0140R00B/10N	14	210 / 250	4,000	500	1/2"	3/4"	3.2
GP2-0158R00B/10N	15.8						
GP2-0178R00B/10N	17.8	200 / 240	3,600				
*GP3-0207R00F/10N	20.7	230 / 270	3,500			400	
GP3-0225R00U/10N	22.5			1 1/16"	15/16		
GP3-0264R00U/10N	26.4			12 UNF	12 UNF		
GP3-0337R00U/10N	33.7						200 / 240

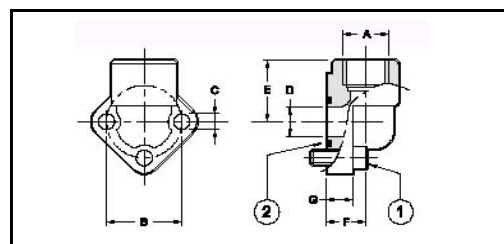
Remark :

SAE Flang Mounting GP1, GP2, GP3

" * " SAE Not Available

F : For Flange Connection

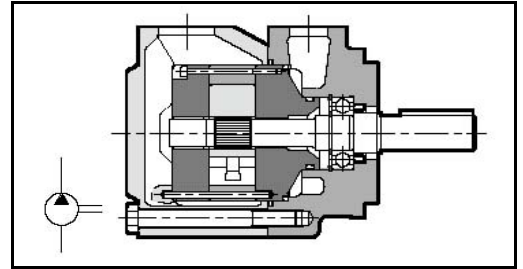
Steel Flanges Type RPA



Pump Size	Flange Code	Flange Description	Pmax.	A Port	B Port	∅ D	① 3 Bolt	① O - Ring
GP1	0771048	RPA1 - 038	315	3/8" BSP	30	12	M6 x 20	OR 121
	0771049	RPA1 - 12		1/2" BSP	30	12		
GP2	0771050	RPA2 - 12		1/2" BSP	40	20	M8 x 25	OR 132
	0770615	RPA2 - 34		3/4" BSP	40	20		
GP3	0771051	RPA3 - 34A		3/4" BSP	51	24	M10 x 30	OR 4118
	0770617	RPA3 - 100A		1" BSP	51	24		
	0770618	RPA3 - 34B		3/4" BSP	56	24		
	0770619	RPA3 - 100B		1" BSP	56	24		

Fixed Displacement Vane Pumps Series 20

Series :
DFP



Model	Delivery (cc/rev)	Working Pressure (bar)	Speed Range		Weight (kg)	Port Size	
			Max.	Min.		Outlet	Inlet
DFP1-05-RAA1/20	18	210	2,700	600	12	3/4"	1-1/2"
DFP1-08-RAA1/20	27.4						
DFP1-11-RAA1/20	36.4						
DFP2-12-RAA1/20	40.1	175	1,800	600	15	1"	1-1/2"
DFP2-14-RAA1/20	45.4						
DFP2-17-RAA1/20	55.2						
DFP2-19-RAA1/20	60.1						
DFP2-21-RAA1/20	67.5						
DFP3-21-RAA1/20	69	210	2,400	600	23	2"	1-1/4"
DFP3-25-RAA1/20	81.6						
DFP3-30-RAA1/20	97.7						
DFP3-35-RAA1/20	112.7						
DFP3-38-RAA1/20	121.6						

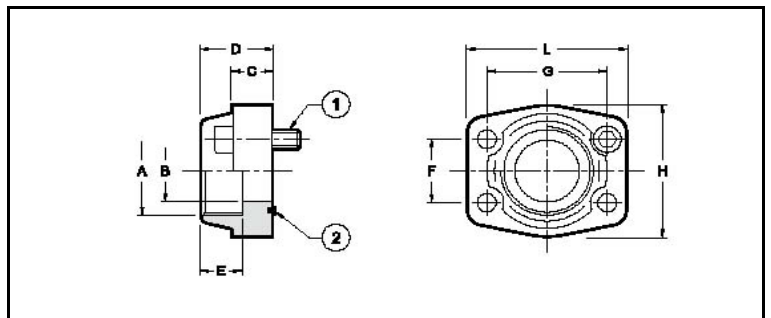
Noise Level Of Vane Pumps :

DFP1 = 64 dB, DFP2 = 65 dB, DFP3 = 69 dB

R : Rotation Clockwise

DFP : For Single Pump

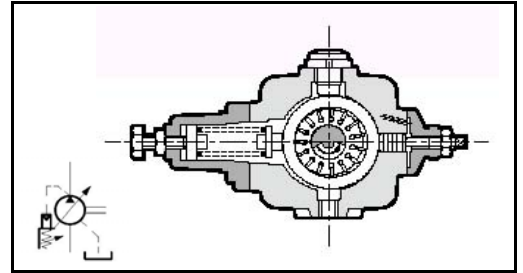
SAE J518 Connection Flanges



Flange Code	Flange Description	A Port	B Port	①	Bolt Code	②
				4 Bolt		O - Ring Code
0610719	SAE - 3/4"	3/4" BSP	19	3/8" UNC x 1-1/2"	0530612	OR 4100
0610713	SAE - 1"	1" BSP	25			OR 4131
0610720	SAE - 1-1/4"	1-1/4" BSP	32	7/16" UNC x 1-1/2"	0530613	OR 4150
0610714	SAE - 1-1/2"	1-1/2" BSP	38	1/2" UNC x 1-3/4"	0530638	OR 4187
0610721	SAE - 2"	2" BSP	51			OR 4225
0610722	SAE - 2-1/2"	2-1/2" BSP	63			OR 4275
0610723	SAE - 3"	3" BSP	73	5/8" UNC x 2"	0530658	OR 4337
0610724	SAE - 3-1/2"	3-1/2" BSP	89			OR 4387

Variable Displacement Vane Pumps Series 20

Series :
PVD



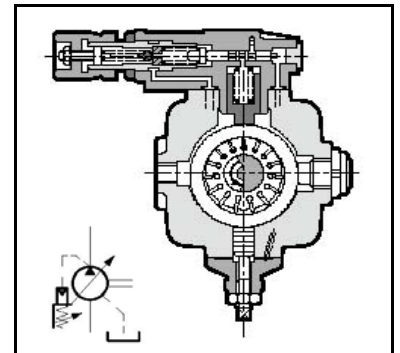
Model	Delivery (l/min)	P Adj. (bar)	Weight (kg)	Speed Range		Port Size		
				Max.	Min.	Outlet	Inlet	Drainage
PVD9-HQ/30	8.7	30 - 100	6.5	1,800	800	3/8"	1/2"	1/4"
PVD13-HQ/30	14.5							
PVD17-HQ/30	17.4							
PVD22-HQ/30	23.2		12			3/4"	1"	3/8"
PVD28-HQ/30	29							
PVD35-HQ/30	36.2							
PVD45-HQ/30	45.6	32	1"	1-1/2"	1/2"			
PVD56-HQ/30	58							
PVD72-HQ/30	72.5							
PVD90-HQ/30	91.3	30 - 80	44	1-1/4"	2"	1/2"		
PVD115-HQ/30	116							
PVD145-HQ/30	145							

K : For Pressure Range 80 bar To 150 bar (Only For PVD 9/13/17)

Q : For Flow Adjuster, (Omit If Not Required)

Variable Displacement Vane Pumps Series 30

Series :
PVA



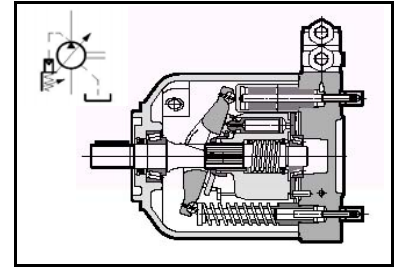
Model	Delivery (l/min)	P Adj. (bar)	Weight (kg)	Speed Range		Port Size		
				Max.	Min.	Outlet	Inlet	Drainage
PVA22MQ/30	23.2	30 - 160	13	1,800	800	3/4"	1"	3/8"
PVA28MQ/30	29							
PVA35MQ/30	36.2							
PVA45MQ/30	45.6		33			1"	1-1/2"	3/4"
PVA56MQ/30	58							
PVA72MQ/30	72.5							
PVA90MQ/30	91.3	30 - 150	45	1-1/4"	2"	3/4"		
PVA115MQ/30	116							
PVA145MQ/30	145							

M : For Dual Pressure Value Selection Device

Q : For Flow Adjuster, (Omit If Not Required)

Variable Displacement Axial - Piston Pumps

Series :
VPPM



Model	Delivery (cc/rev)	Regulator Type	Pump Size	Port Size (BSP)		
				Outlet	Inlet	Drainage
VPPM-029-PC-R-55S/10N000	29	Pressure Regulator	029	3/4"	1-1/4"	1/2"
VPPM-046-PC-R-55S/10N000	46					
VPPM-073-PC-R-55S/10N000	73					
VPPM-029-PCR-R-55S/10N000	29	Remote Controlled Pressure Regulator	046	1"	1-1/2"	1/2"
VPPM-046-PCR-R-55S/10N000	46					
VPPM-073-PCR-R-55S/10N000	73					
VPPM-029-PCM-R-55S/10N000	29	Pressure Regulator With Minimum Displacement Electrical Switching	073	1-1/4"	2"	1/2"
VPPM-046-PCM-R-55S/10N000	46					
VPPM-073-PCM-R-55S/10N000	73					
VPPM-029-PCX-R-55S/10N000	29	Regulator With Pressure Control Device	-	-	-	-
VPPM-046-PCX-R-55S/10N000	46					
VPPM-073-PCX-R-55S/10N000	73					

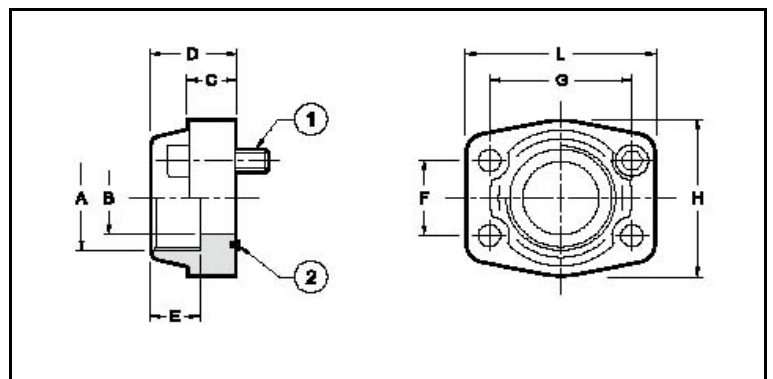
Max. Operated Pressure 280 bar And Peak Pressure 350 bar

Max. Pressure On The Drainage Port 0.5 bar

Connection Flanges

SAE 3000

SAE 6000



SAE 3000 " Suction Port "

Flange Code	Flange Description	Pmax. (bar)	A Port	B Port	①	②
					4 Bolt	O - Ring Code
0610720	SAE - 1-1/4"	280	1-1/4" BSP	32	M10 x 35	OR 4150
0610714	SAE - 1-1/2"	210	1-1/2" BSP	38	M12 x 45	OR 4187
0610721	SAE - 2"	210	2" BSP	51	M12 x 45	OR 4225

SAE 6000 " Delivery Port "

Flange Code	Flange Description	Pmax. (bar)	A Port	B Port	①	②
					4 Bolt	O - Ring Code
0770075	SAE - 1-1/4"	280	1-1/4" BSP	32	M10 x 35	OR 4150
0770092	SAE - 1-1/2"	210	1-1/2" BSP	38	M12 x 45	OR 4187
0770106	SAE - 2"	210	2" BSP	51	M12 x 45	OR 4225