



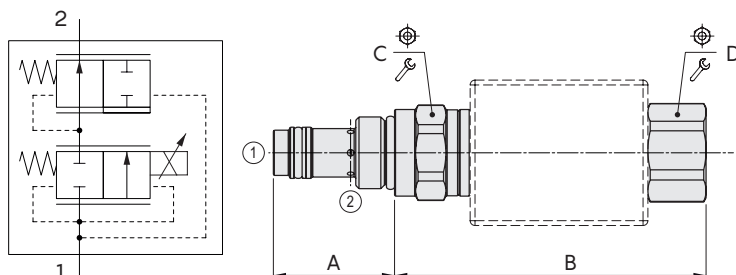
PU..X type flow control pressure compensated valves - 2 way

- Spool type
- Direct acting through proportional solenoid
- Different types of emergencies available
- Adjustment from port 1 to port 2
- From SAE08 to SAE16 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		PU08X	PU10X	PU12X	PU16X
Nominal flow		10 l/min (2.6 US gpm)	30 l/min (7.9 US gpm)	50 l/min (13 US gpm)	90 l/min (24 US gpm)
Max. pressure		315 bar (4600 psi)			
Oil leakage	at 210 bar (3050 psi)	80 cm³/min (4.9 in³/min)	150 cm³/min (9.2 in³/min)	250 cm³/min (15.3 in³/min)	400 cm³/min (24.4 in³/min)
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties				
Viscosity	10–200 cSt				
Max level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals+PTFE with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)			
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)				
Cavity		SAE 08/2 A	SAE 10/2 A	SAE 12/2 A	SAE 16/2 A
Coil type*	BH or BQP19				
Nominal voltages	12VDC - 24VDC ± 10%				
Power rating	33 W (BH) - 15 W (BQP19)				
Max. control current	12V -> 1.70A - 24V -> 0.85A (BH) 12V -> 1.25A - 24V -> 0.63A (BQP19)				
Dither frequency	150Hz				
Hysteresis	8%				
Weight		0.34 kg (0.75 lb)	0.39 kg (0.86 lb)	0.51 kg (1.12 lb)	0.90 kg (1.98 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 201.

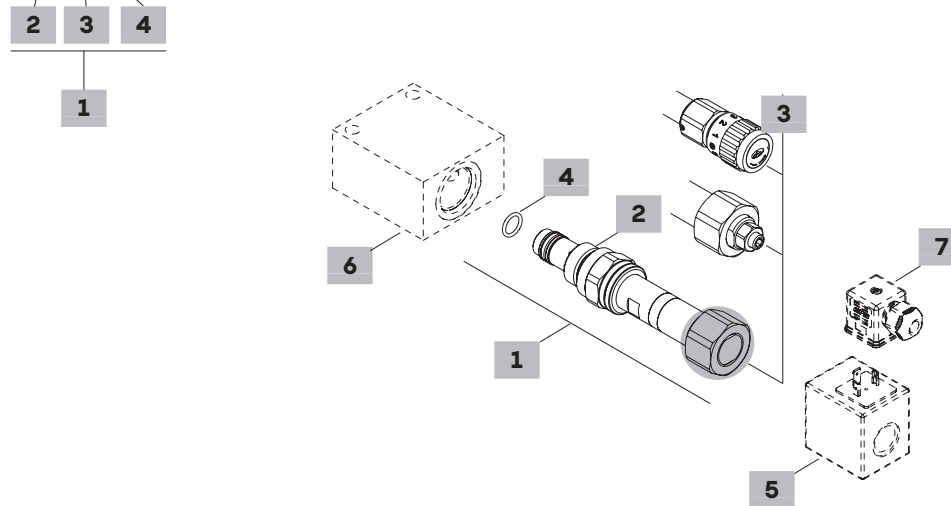


Valve type	A		B N without emergency		C			D		
										
	mm	in	mm	in	Nm	lbft		Nm	lbft	
PU10X	37.5	1.48	96.4	3.80	27	50	37	28	5	3.7

For dimensions with different type of emergency see list page 116

Ordering codes and description composition

PU08X/A0NB



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2 A		
PU08X/A0NB	OPU08002012	Without emergency
PU08X/A0TB	OPU08002013	Screw type emergency
PU08X/A0VB	OPU08002014	Handknob emergency
SAE cavity 10/2 A		
PU10X/A0NB	OPU10002020	Without emergency
PU10X/A0TB	OPU10002021	Screw type emergency
PU10X/A0VB	OPU10002022	Handknob emergency
SAE cavity 12/2 A		
PU12X/A0NB	OPU12002007	Without emergency
PU12X/A0TB	OPU12002008	Screw type emergency
PU12X/A0VB	OPU12002009	Handknob emergency
SAE cavity 16/2 A		
PU16X/A0NB	OPU16002010	Without emergency
PU16X/A0TB	OPU16002011	Screw type emergency
PU16X/A0VB	OPU16002012	Handknob emergency

2 Pressure drop from 1 to 2

TYPE	DESCRIPTION
A	12 bar (170 psi)

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
T	Screw type
V	Handknob

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+PTFE o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

5 Coils

TYPE	CODE	DESCRIPTION
BH 12VDC	4SLD001200A	12VDC-ISO4400 coil
BQP19 12VDC	4SL5000126A	12VDC-ISO4400 coil

For complete coils list see from page 201

6 Valve body

TYPE	CODE	DESCRIPTION
SAE08/2-SAE8	3CC0820K11	Aluminium body for cavity 08 valve, SAE8 std thread
SAE10/2-SAE8	3CC1020K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE12/2-SAE10	3CC1220L11	Aluminium body for cavity 12 valve, SAE10 std thread
SAE16/2-SAE12	3CC1620M11	Aluminium body for cavity 16 valve, SAE12 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 208

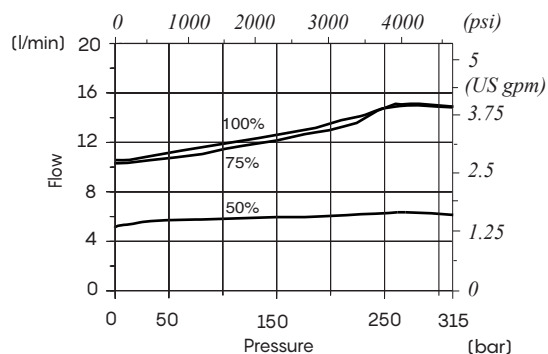
7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995B	Connector

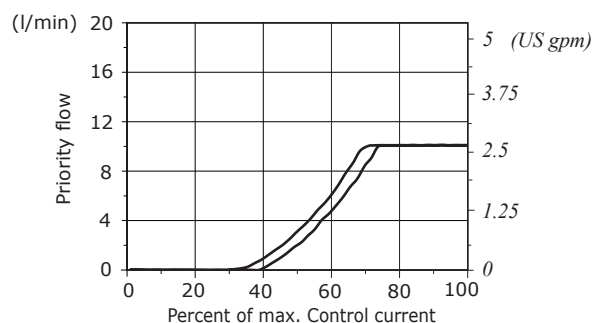
For complete connectors list see from page 201

Rating diagrams

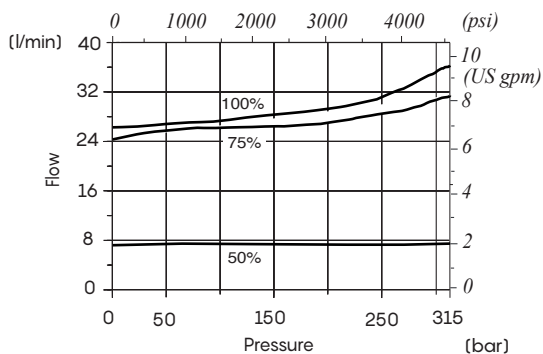
PU08X: pressure compensation diagram 1→2
for % of control current



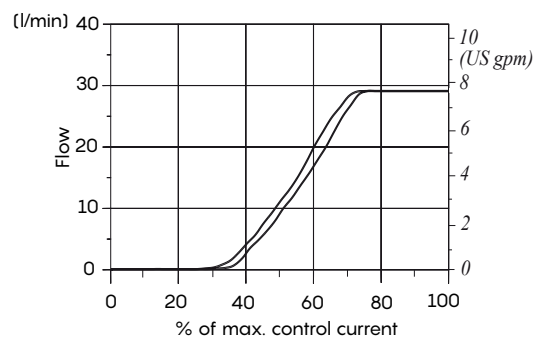
PU08X
flow regulating vs. % max. control current



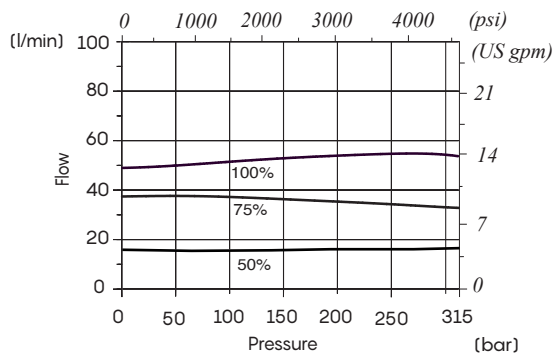
PU10X: pressure compensation diagram 1→2
for % of control current



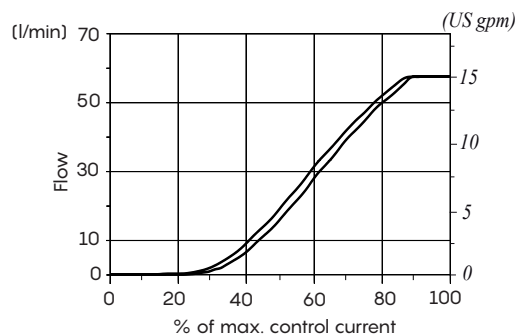
PU10X
flow regulating vs. % max. control current



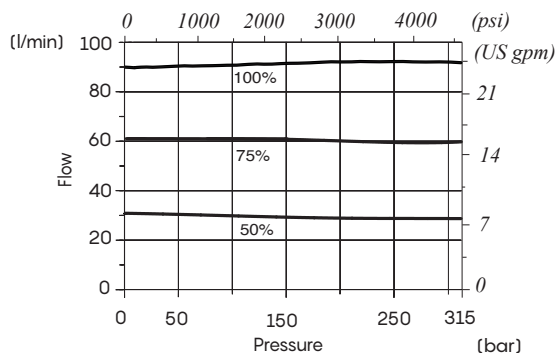
PU12X: pressure compensation diagram 1→2
for % of control current



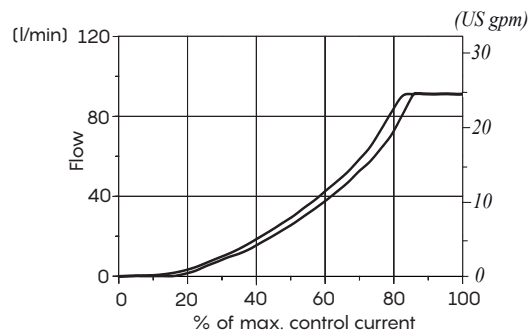
PU12X
flow regulating vs. % max. control current



PU16X: pressure compensation diagram 1→2
for % of control current



PU16X
flow regulating vs. % max. control current



Types and dimensions

Valve type	A		B						C			D		
			N without emergency		T screw		V handknob							
	mm	in	mm	in	mm	in	mm	in						
									Nm	lbft			Nm	lbft
PU08X	36.6	1.44	93.9	3.70	107.9	4.25	139.9	5.51	24	30	22	28	5	3.7
PU10X	37.5	1.48	96.4	3.80	110.4	4.35	142.4	5.61	27	50	37	28	5	3.7
PU12X	58.5	2.30	97.4	3.83	111.4	4.39	145.4	5.72	32	75	55	28	5	3.7
PU16X	68	2.68	121.4	4.78	135.4	5.33	169.4	6.67	41	95	70	28	5	3.7