

RP..X

Pressure piloted reducing/relieving
proportional valves



A member of



RP..X

Pressure piloted reducing/relieving proportional valves



- External zinc-plated and corrosion-proof components
- Hardened parts to ensure minimal wear and long life
- Spool profile optimized through CFD analysis
- Industry common cavities
- Heavy duty polyurethane seals
- Excellent stability throughout the entire flow range
- Excellent dynamic response
- 4 pressure ranges available
- Air bleeding system
- Manual override available

DESCRIPTION:

Walvoil launches the new RP..X proportional piloted pressure reducing valve series, solenoid operated, spool-type, with relieving function.

The valve supplies the pressure depending on the electrical current input; the reduced pressure can be continuously adjusted within a preset pressure range.

OPERATION:

When current is applied to the coil, the RP..X valve manages the flow from port 2 to port 1 until the required pressure value at port 1 is reached. If this pressure exceeds the preset value due to external forces, the pilot stage opens and the flow is sent to the tank through port 3. This operation (reducing/relieving) continues until the pressure value established by the electric signal is reached. Any back pressure on port 3 is additive to the valve setting pressure.

Thanks to accurate tuning, optimization through CFD analysis and the adoption of the Walvoil proportional system, the new RP..X series ensures a reduction in pressure drops and (overall) dimensions compared to the previous valve version.

These valves are available in SAE 08, 10, 12 & 16 size and the 4 different pressure ranges available allow to obtain a precise pressure setting for the whole pressure range.

RP..X valves are used for mobile and industrial applications for system pressure reduction, where low pressure drops and high flow rates are required.

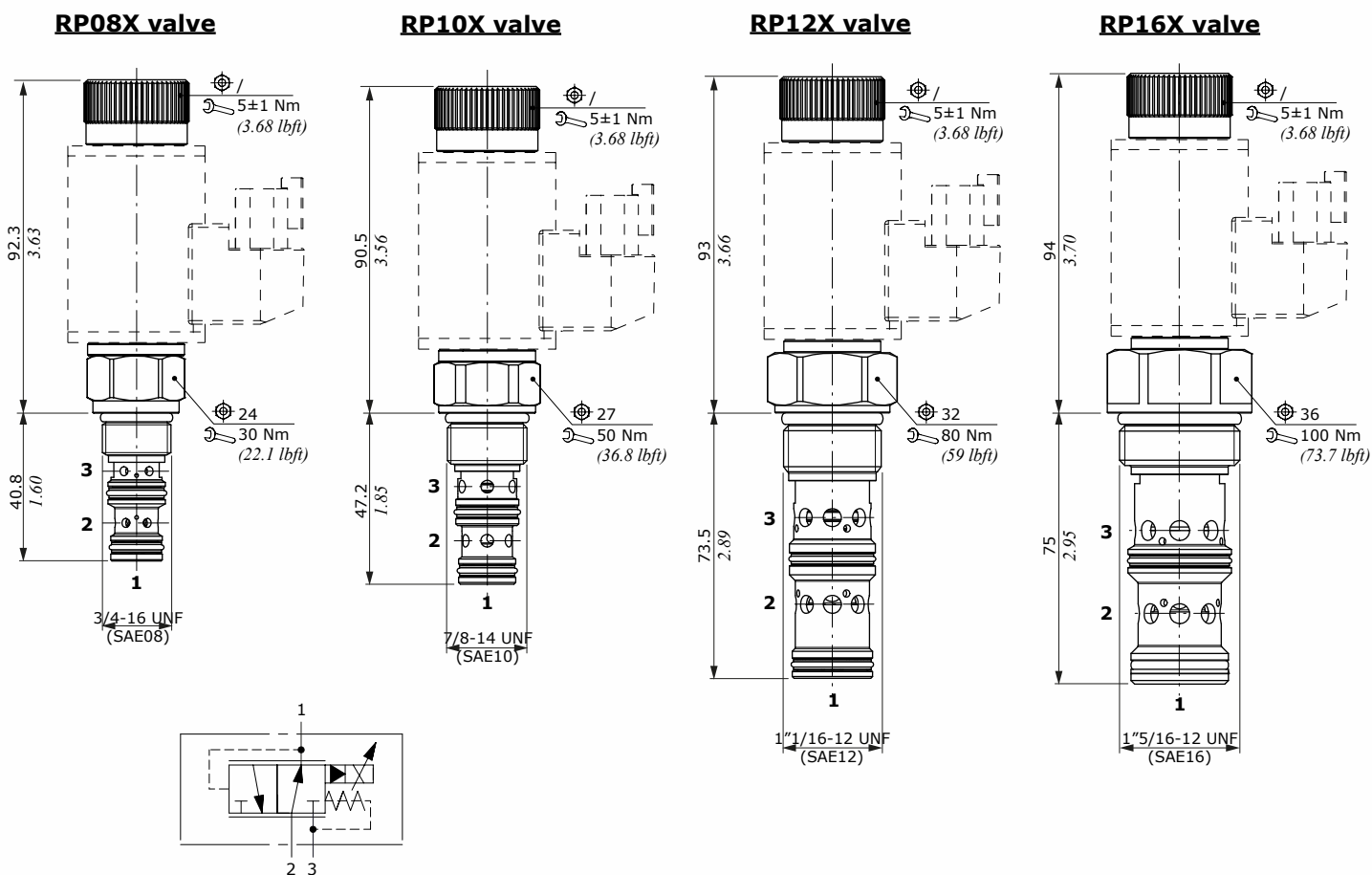
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

Working condition				
	RP08X	RP10X	RP12X	RP16X
Nominal flow	30 l/min (7.9 US gpm)	50 l/min (13.2 US gpm)	100 l/min (26.4 US gpm)	150 l/min (40 US gpm)
Max. pressure	350 bar (5100 psi)			
Setting ranges	5 bar (72.5 psi) up to 50 bar (725 psi)	20 bar (290 psi) up to 100 bar (1450 psi)	50 bar (725 psi) up to 200 bar (2900 psi)	80 bar (1150 psi) up to 350 bar (5100 psi)
Fluid	mineral based oil			
Viscosity	10-200 cSt			
Max level of contamination	18/16/13 ISO4406			
Fluid temperature	with NBR seals	from -20°C (-4°F) to 80°C (176°F)		
	with FPM seals	from -20°C (-4°F) to 100°C (212°F)		
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)			
Cavity	SAE 08/3	SAE 10/3	SAE 12/3	SAE 16/3
Coils type	(BH)		(BQP19)	
Power rating	(Proportional)	33 W (12/24 VDC)		22.5 W (12/24 VDC)
Connector types	ISO4400 - Deutsch DT AMP-JPT - Flying leads		ISO4400 - Deutsch DT AMP-JPT	

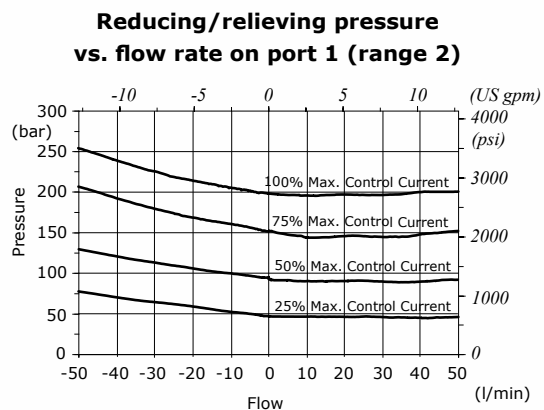
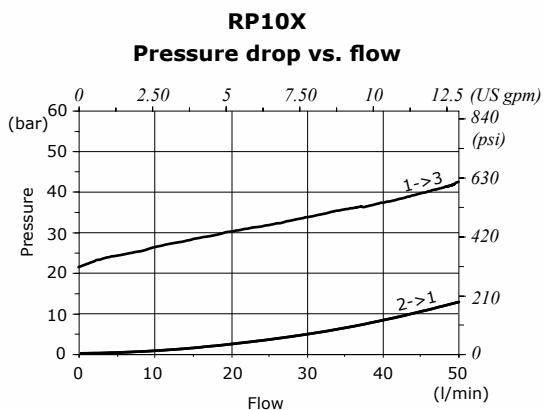
Note - For different conditions, please contact Walvoil Sales Department.

NEW

Dimensions and hydraulic circuits



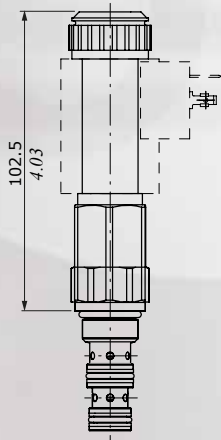
Performance data



Valves comparison

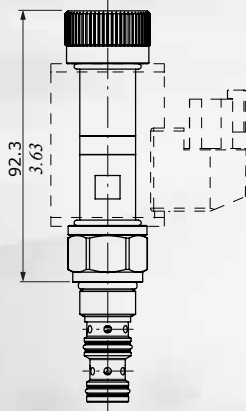
RP08X - OLD

P= 350 bar (5100 psi)



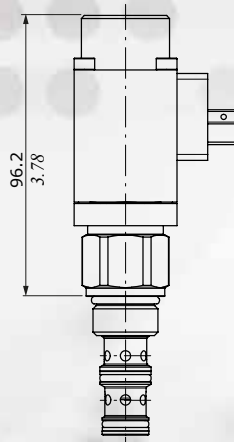
RP08X - NEW

P= 350 bar (5100 psi)



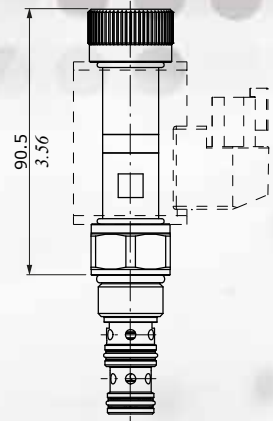
RP10W - OLD

P= 350 bar (5100 psi)



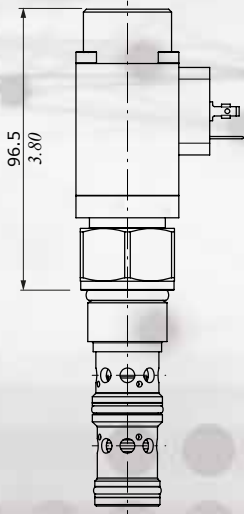
RP10X - NEW

P= 350 bar (5100 psi)



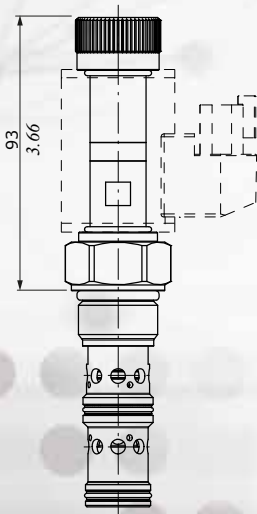
RP12W - OLD

P= 350 bar (5100 psi)



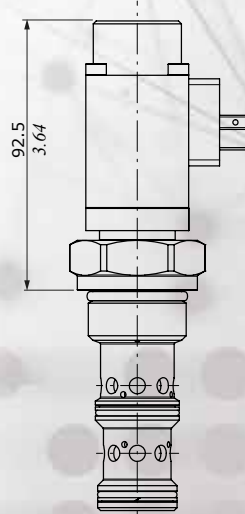
RP12X - NEW

P= 350 bar (5100 psi)



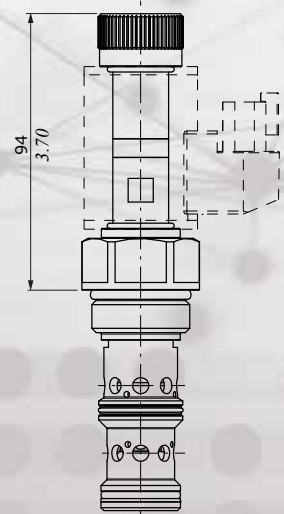
RP16W - OLD

P= 350 bar (5100 psi)



RP16X - NEW

P= 350 bar (5100 psi)



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