



# AIR PRESSURE REDUCING VALVE

## MODEL ACOSR-10

### SELF-ACTUATED PRESSURE REDUCING VALVE WITH SHOCK-ABSORBING PISTON

#### Features

**Technologically advanced pressure reducing valve for accurate control in compressed air systems.**

1. Self-aligning shock-absorbing spherical piston and advanced pilot regulator designs maintain secondary steam pressure accuracy, even during adverse process conditions.
2. Major internal components made of stainless steel for long service life.
3. Large surface area integral screen for pilot valve extends trouble-free service.
4. Internal secondary pressure-sensing channel makes external sensing line unnecessary.



#### Specifications

Model	ACOSR-10
Connection	Flanged
Size (mm)	15, 20, 25, 32, 40, 50
Body Material	Cast Iron
Maximum Operating Pressure (MPaG) PMO	0.9
Maximum Operating Temperature (°C) TMO	100
Primary Pressure Range (MPaG)	0.1 – 0.9
Adjustable Pressure Range (MPaG)	0.05 – 0.7
Minimum Differential Pressure (MPa)	0.05
Minimum Adjustable Flow Rate	10% of rated flow rate
Applicable Fluid*	Air

\* Do not use for toxic, flammable or otherwise hazardous fluids.

1 MPa = 10.197 kg/cm<sup>2</sup>

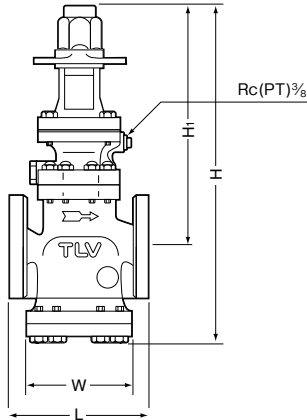
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 1.6  
Maximum Allowable Temperature (°C) TMA: 220



To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

Dimensions

● ACOSR-10 Flanged

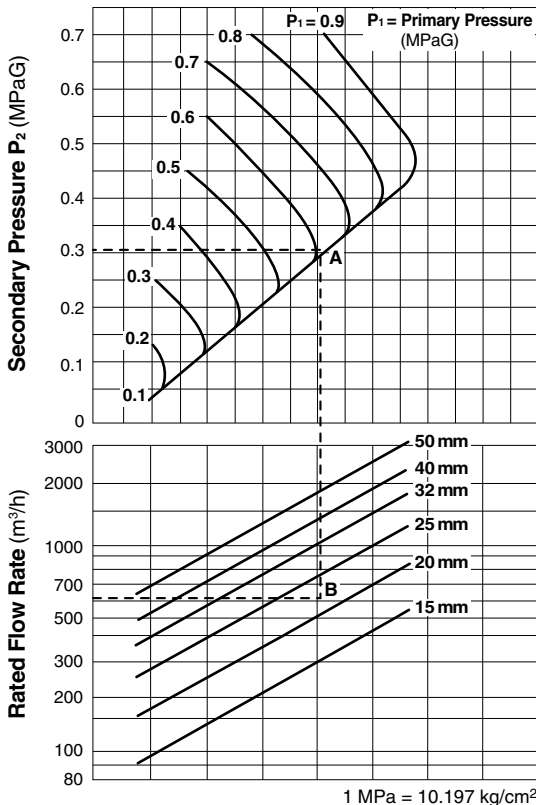


ACOSR-10 Flanged (mm)

Size	L				H	H <sub>1</sub>	W	Weight* (kg)
	ASME Class							
	125FF	(150RF)	250RF	(300RF)				
(15)	—	170	—	170	385	285	105	[11]
(20)	—	182	—	182				[13]
25	175	188	188	192	402	282	125	15
32	206	220	220	220	437	302	150	19
40	209		222	224				21
50	247	255	260	261	470	315	195	36

( ) No ASME standard exists for cast iron; machined to fit steel flanges  
 Class 125 FF can connect to 150 RF, 250 RF can connect to 300 RF  
 Other standards available, but length and weight may vary  
 \* Weight is for Class 250 RF [300 RF]

Sizing Chart



Rated flow rates represent equivalent flow rates of air at 20 °C under atmospheric pressure.

Sizing Example (see sizing chart at left)

For primary pressure of 0.8 MPaG, set pressure 0.3 MPaG and air flow rate 600 m<sup>3</sup>/h select an appropriate size.

1. Locate intersecting point A of 0.8 MPaG primary pressure and 0.3 MPaG set pressure. Go to point A and down until 600 m<sup>3</sup>/h, point B, is reached.
2. Since point B is located between 20 mm and 25 mm, the larger size, 25 mm, should be chosen.