



AIR PRESSURE REDUCING VALVE

**MODEL ACOSR-10 DUCTILE CAST IRON
STAINLESS STEEL**

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.

Pressure Equipment Directive (PED)

Classification according to PED 2014/68/EU, fluid group 2

Size	Category	CE marking
DN 15 to DN 40	—*	Art. 4, Sec. 3 (sound engineering practice), CE marking not allowed
DN 50	I	With CE marking and Declaration of Conformity

* Manufactured in accordance with sound engineering practice



Specifications

Model		ACOSR-10	
Body Material		Ductile Cast Iron (GGG40.3/EN 5.3103)	Cast Stainless Steel (A351/A351M Gr.CF8 or CF8M) (equiv. to 1.4312 or 1.4410)
Connection		Flanged DIN	Flanged DIN
Size		DN 15, 20, 25, 40, 50	
Maximum Operating Pressure (barg)	PMO	9	
Maximum Operating Temperature (°C)	TMO	100	
Primary Pressure Range (barg)		1 – 9	
Adjustable Pressure Range (barg)		0.5 – 7	
Minimum Differential Pressure (bar)		0.5	
Minimum Adjustable Flow Rate		10% of rated flow rate	
Applicable Fluid*		Air	

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

1 bar = 0.1 MPa

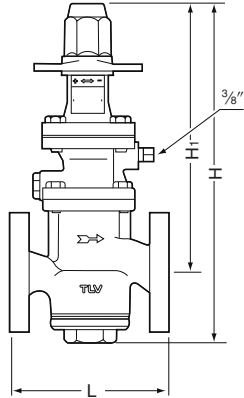
PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 16
Maximum Allowable Temperature (°C) TMA: 220
Minimum Allowable Temperature (°C): 0 (GGG40.3/EN 5.3103), -40 (CF8/CF8M)



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



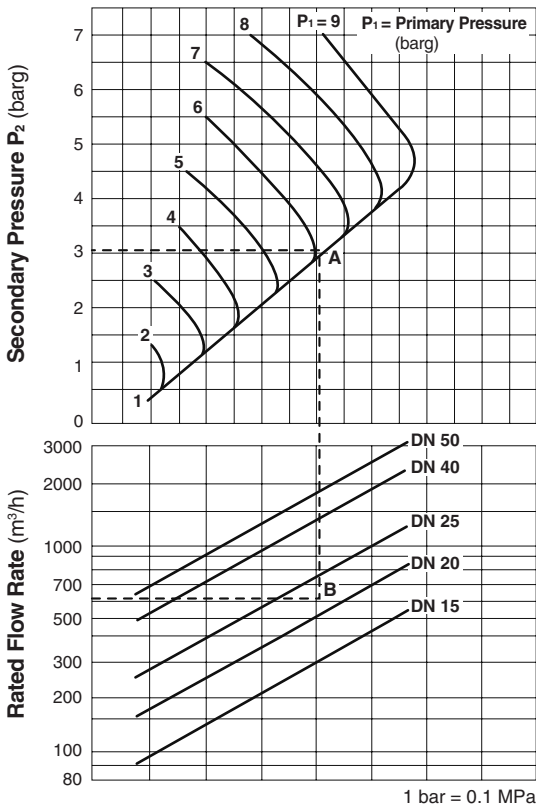
Note: DN 15 - 25 shown.
Configuration of larger sizes differs slightly

ACOSR-10 Flanged (mm)

DN	L		H	H ₁	W	Weight (kg)
	DIN2501	PN25/40				
15	130		357	285	88	10
20	150					11
25	160			282	93	13
40	200		437	302	150	20
50	230		470	315	195	35

Other standards available, but length and weight may vary

Sizing Chart



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

Sizing Example (see sizing chart at left)

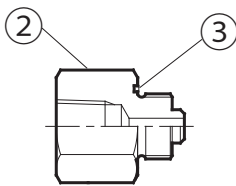
For primary pressure of 8 barg, set pressure 3 barg and air flow rate 600 m³/h select an appropriate size.

1. Locate intersecting point A of 8 barg primary pressure and 3 barg set pressure. Go to point A and down until 600 m³/h, point B, is reached.
2. Since point B is located between DN 20 and DN 25, the larger size, DN 25, should be chosen.

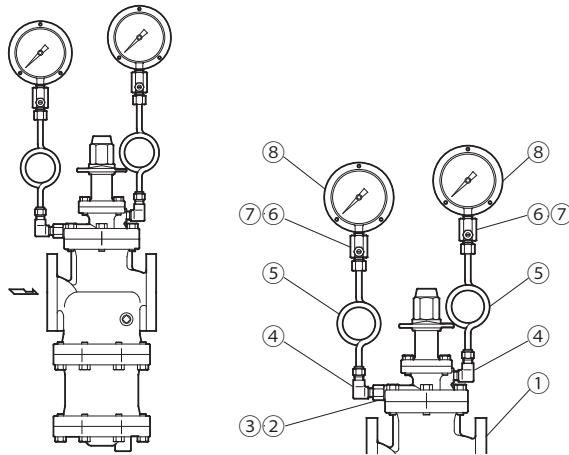
Option

Pressure Gauge Unit	Replaces the standard screen holder plug to enable installation of a pressure gauge of the user's choice. Primary side: M16 holder plug (male/female), BSP/Rc(PT)/NPT 3/8. An elbow is required for pressure gauge installation. Secondary side: Rc(PT) 3/8 mounting port for elbow and pressure gauge installation.
Elbows, pressure gauge and connecting parts must be purchased separately.	

● **Configuration**



● **Installation Example**



NOTE: For explanation purposes, a siphon tube style pressure gauge will be used. However, the instructions also apply to cooling tower-style pressure gauges.

No.	Part Name	No.	Part Name
1	Valve Body	5	Siphon Tube*
2	Holder Plug	6	Dampener*
3	Holder Plug Gasket	7	Dampener Gasket*
4	Elbow (male/female)*	8	Pressure Gauge*

* Purchase separately

Manufacturer
TLV® CO., LTD.
 Kakogawa, Japan
 is approved by LRQA Ltd. to ISO 9001/14001

