

# Class T Pressure Reducing Valve

The Class T balanced direct acting pressure regulator is designed for use on installations that have varying inlet pressures and capacities, and require positive shut-off under "no flow" conditions.

The standard valve is suitable for controlling air, gas and water. Alternative seals and diaphragms need to be fitted for oil duty.

## OPERATION

The Class T pressure regulator is operated by a spring loaded piston and has a balanced main valve which ensures that the outlet dead-end pressure is unaffected by changes of inlet pressure.

The valve is opened by the load on the adjusting spring and closed by reduced pressure on the underside of the diaphragm. Under normal working conditions, the balance of these two forces gives the degree of valve opening for the required reduced pressure.

## FEATURES AND BENEFITS

- Fully balanced piston - allows a constant outlet pressure to be maintained, irrespective of varying inlet pressure.
- Soft disc - for positive shut-off.
- Self actuation/regulation - requires no external power source.
- Simple design - enables the valve to be easily maintained and serviced, without removal from the line.
- Minimum variation between 'flow' and 'no-flow' pressure.

## CE MARKING

The Class T has been certified to the requirements of the PED (Category II). Valve sizes below 32mm (1¼ inch), do not require, and hence, cannot be CE marked.

## TECHNICAL SPECIFICATION

**Size** 15, 20, 25, 32, 40, 50 mm  
(½, ¾, 1, 1¼, 1½, 2 inch)

**Connections** Screwed BSP parallel, NPT.  
Flanged BS4504 PN25/40.  
BS 10 table 'H', ANSI 150.

**Material** Bronze.

**Temperature Range**  
Min: -20°C Max: air/water 100°C / oil 90°C.

**Maximum Inlet Pressure** 40 Barg.

**Maximum Outlet Pressure\*** 13.8 Barg.

**Minimum Outlet Pressure\***

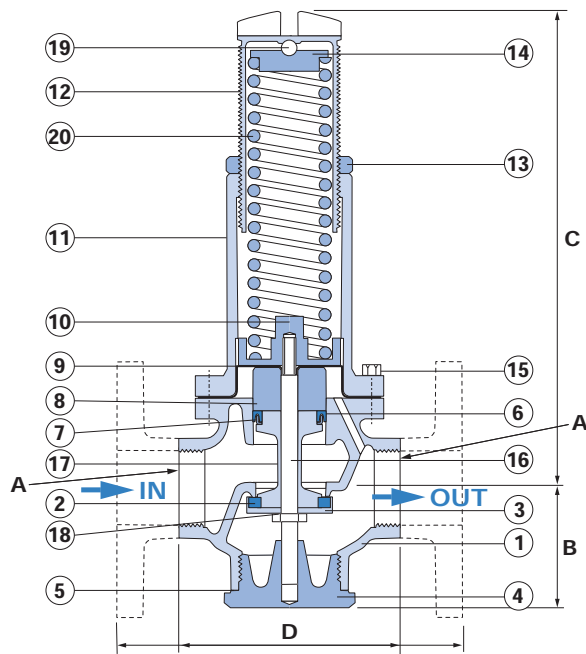
MIN. OUTLET	INLET PRESSURE RANGE
0.35 Barg	up to 6.9 Barg
5% of inlet	6.9 to 20.7 Barg
10% of inlet	above 20.7 Barg

\* Setting including rise at dead end (see pages 56, 73 and 75).

## SPRING SELECTION

DEAD END PRESSURE SETTING RANGE (Barg)	DEAD END PRESSURE SETTING RANGE (Psig)	COLOUR CODE
0.35 to 0.7	5 to 10	Dark Green
0.7 to 1.4	10 to 20	Light Green
1.4 to 2.8	20 to 40	Orange
2.8 to 5.5	40 to 80	Brown
5.5 to 8.3	80 to 120	Blue
8.3 to 13.8	120 to 200	Red

## PARTS



ITEM	PART	MATERIAL
1	Body	Bronze
2†	Valve Disc*	Rubber/PTFE
3	Disc Holder	Brass
4	Bottom Plug	Bronze
5†	Bottom Plug Joint	NAF
6†	H. P. Seal	Rubber
7	H. P. Seal Ring	Brass
8	Distance Piece	Brass
9†	Rolling Diaphragm	Rubber
10	Piston	Brass
11	Spring Chamber	Bronze
12	Adjusting Screw	Bronze
13	Adjusting Screw Ring	Brass
14	Spring Plate	Brass
15	Set Screws	Pit. Steel
16	Valve Stem	Bronze
17	Valve Stem Sleeve	Bronze
18	Valve Stem Joint	NAF
19	Adjusting Screw Ball	St. St.
20	Spring	Pit. Steel

\* Valve discs are normally rubber, however PTFE discs should be specified when the inlet pressure is above 17.2 Barg or the outlet pressure is above 8.2 Barg.

†Set of seals - water/gas or oil duty; available from Safety Systems UK Ltd.

Recommended inspection every 12 months

## DIMENSIONS

### Screwed

SIZE	DN15	DN20	DN25	DN32	DN40	DN50
<b>A BSP</b>	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>B</b>	45	48	56	68	68	79
<b>C</b>	162	184	222	232	292	324
<b>D</b>	76	89	111	124	133	165
<b>Kg</b>	2	3	4	6	8	11

### Flanged

SIZE	DN15	DN20	DN25	DN32	DN40	DN50
<b>A</b>	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>B</b>	57	57	61	67	70	83
<b>C</b>	162	184	222	232	292	324
<b>D</b>	130	150	160	180	200	230
<b>Kg</b>	3	5	6.5	8.5	13	17

All dimensions in mm.