DSR

pressure regulator
double stage

The **DSR** series regulators are a line of direct action type pressure regulators, double stage, normally for domestic use directly assembled to the meter or in decompression installations for civil and industrial uses in canalized networks for natural and manufactured gas, Lpg or other non corrosive, preliminarily treated stable gases.

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Rev. 00 del 01/01/2003

DSR

Tecnichal features

- **body** — die cast alluminium
- **cover** — pressed steel and brass
- **diaphragm** — nitrile synthetic rubber with clouth renforcement (MP)
- **seats** — brass
- **springs** — stainless steel

safety devices

These regulators, over its functions of pressure decompression and stabilization, at the equipment exit they build-in safety devices so as to preserve the equipment itself and the safety of the users too.

- **Overpressure shut-off (OPSO)**

It interrupts immediately the gas distribution when the outlet pressure value exceeds the shut-off set point value. The shut-off is adjustable, exclusively external, by manual rearming.

- **Underpressure shut-off (UPSO)**

It interrupts immediately the gas distribution when the outlet pressure value is less than the shut-off set point value. The shut-off is adjustable, exclusively external, by manual rearming.

- **Shut-off in case of excess of flow**

It interrupts immediately the gas supply when the distributed flow rate (capacity) exceeds up to 140% the capacity nominal value fixed for the regulator.

- **Relief valve**

Its intervention is carried out when the pressure exceeds the device set point value which venting through the provided drain protect the regulator by temporary and short pressure raisings. The relief valve is adjustable exclusively external.

			DSR 6	DSR 10	DSR 25
Diameters			**refer to connection table**		
Connections			**straight (L) and/or angle (S)**		
Nominal capacity (*)	**Q**	**[m³/h]**	**6**	**10**	**25**
Inlet pressure	**Bpe**	**[bar]**	**0,5 ÷ 6**		
Outlet pressure range	**Wh**	**[mbar]**	**14 ÷150 (BP) & 100 ÷450 (MP)**		
Regulating class	**RG**	**[%]**	**up to 5**		
Closing pressure class	**SG**	**[%]**	**up to 10**		
Working temperature	**T**	**[°C]**	**- 30 ÷ 60**		
Weight		**[Kg]**	**1,5**		

(*) refered to natural gas with relative density d = 0,61

DSR

additional safety fuctions

During designing they have been added further functions and safety parameters such as:

- **Anti-reset device**

It's a intrinsic function of the slam shut device which not allow, in any case, the equipment's automatic rearming. Therefore, the rearming, exclusively manual, can be happen only after resolving the inconvenient causes made by the shut-off.

- **Shut-off in case of "feeding absence"**

The equipments are projected so as in case of feeding failure in the grid, the regulators are cut-off at minimum pressure, avoiding thus incidental flames extinctions

- **Closing for "taking absence"**

The equipments are projected so as the stopper goes up against the housing support in case of taking absence for the regulator section upstream safety.

- **Shut-off in case of diaphragm breaking**

The equipments are projected when the 2° stage regulation diaphragm breaking causes an elevated gas leak, not discharged by the relief valve. In that case the equipment can be shut-off avoiding the discharge of high gas quantities and incidental flame's extinctions too, due to the pressure decrease and pointing out the dangerous irregularity.