

# Pressure Reducing Valve RMG 213 (D 36 Hb)



**General Description**

**213.00**

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# Pressure Reducing Valve RMG 213 (D 36 Hb)

The pressure reducing units reduce the changing upstream pressure of gaseous mediums down to a rear pressure adjustable within the rear pressure range. The adjustment of the nominal pressure is done by spring-loading the measuring and operating diaphragm.

The pressure reducing valves can reliably be operated within a range of 3–100% of the maximum flow rate to be obtained by the regulating nozzle (3 mm diameter).

The operating ranges are:

- Max. inlet pressure 200 kp/cm<sup>2</sup> (2.845 psi)
- Nominal pressure equal or higher 0.5 kp/cm<sup>2</sup> (7,11 psi)
- Max. inlet pressure 350 kp/cm<sup>2</sup> (4.978 psi)
- Nominal pressure equal or higher 1 kp/cm<sup>2</sup> (14,22 psi).

Drops of pressure being higher as those mentioned before, require a two-stage expansion of the gas. For this purpose two single-stage reducing valves (e. g. D 36 H b with following D 36 resp. D 119 a) can be used.

The reducing valves tightly close, if the gas consumption becomes zero.

The rear pressure side has a safety-outlet, which opens if the set inlet pressure is exceeded (abt. 3% above highest nominal pressure). This safety-outlet is for protecting any following gas consuming devices against inadmissible overload. With the Standard type the flowing-off gas of the safety-outlet enters the working room. The casing can also be provided with a screw joint for 10 mm inside diameter. In this case the flowing-off gas (danger of explosion or toxic) can be led into the open air.

The reducing valves are equipped with screwed-in pressure gauges for measuring the inlet and rear pressure.

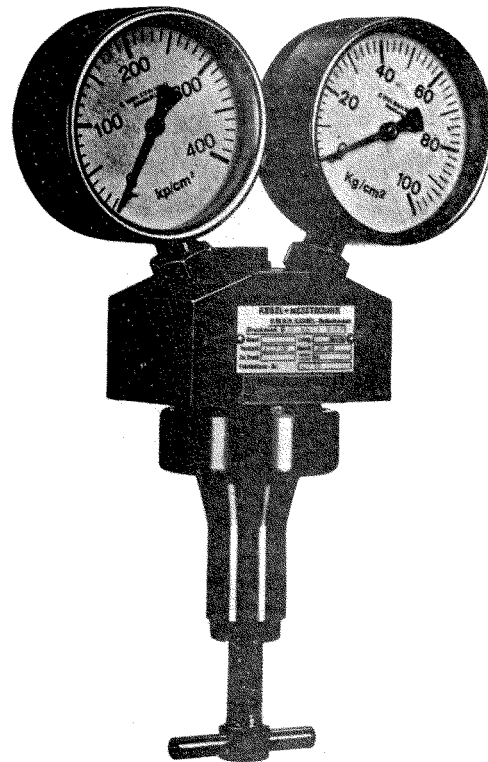
The installation of a non-return valve is possible (return flow safety measure), which prevents the return flow of gas, if the inlet pressure drops below that of the rear pressure.

The bodies of the units are available of brass or stainless steel for threaded connection and of cast steel or stainless steel for welding connection. The covers of measuring equipments M, H and S are made of pressed brass. As far as the measuring equipments G and GS are concerned, the part of the cover being in contact with the gas, is made of brass or stainless steel. The remaining part of the cover is made of normal steel. For all other parts, being in contact with the gas, are made of materials which are far reaching resistant to it.

The pressure reducing valves are provided for the expansion of gases under high inlet pressure and for high drops of pressure and relatively low flow rates. They are suitable for all gases, containing no solids. It is recommended to add a gas filter in order to prevent contaminations of the packing face of the throttle device.

The connections in the body have inside threads R 3/8" for the measuring equipments M, H and S and inside threads R 1/2" for the measuring equipments G and GS. Alternatively the casings for measuring equipments M, H, S, G and GS can be provided for welding connection with 15 mm inside diameter.

For determining the max. flow rate to be achieved by the regulating nozzle installed (3 mm diameter) refer to table P 135.



Pressure Reducing valve with measuring equipment M, H resp. S

Measuring equipments and rear pressure ranges applicable:

Measuring equipment with	Type of spring for measuring equipment	Possible rear pressure ranges	
		kp/cm <sup>2</sup>	psi
M	F 0	0,2–1,5	(2,845–21,335)
	F 1	0,2–4	(2,845–56,893)
	F 2	1–10	(14,223–142,232)
H	F 3	1–20	(14,223–284,5)
	F 4	2–30	(28,446–426,7)
S	F 5	3–70	(42,67–995,6)
G	F 6	40–120	(568,93–1.707)
	F 7	40–160	(568,93–2.276)
GS	F 7	70–160	(995,6–2.276)
	F 8	70–250	(995,6–3.566)

Designation of units:

e. g. for a unit with an inlet connection R 3/8" and an outlet connection of R 3/8", nozzle 3 mm diameter, measuring equipment cover H and spring F4 for the rear pressure range from 2 to 30 kg/cm<sup>2</sup> (28,446 to 426,7 psi):

**D 36 H b – R 3/8" / R 3/8" – 3 – H – F 4**  
series type modif. design inlet outlet nozzle measuring p2 equipment spring



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