

Safety device: MDG

Type MDG for protection of cylinder regulators and tapping points

The safety device MDG according to DIN EN ISO 5175-1:

- avoids dangerous gas mixtures by a gas non-return valve (NV)
- stops flashback through flame arrestor (FA)
- every safety device is 100% tested
- all metal components in brass 2.0401 / spring 1.4310

Safety elements of the IBEDA safety device MDG:

- NV Gas non-return valve
- FA Flame arrestor



Maintenance:

The safety devices are to be tested by a qualified and authorised person at regular intervals according to country specific regulations. The safety device is to be tested for gas tightness, gas flow and gas return at least once a year.

We would be pleased to offer you the flashback arrestor testing unit model PVGD.

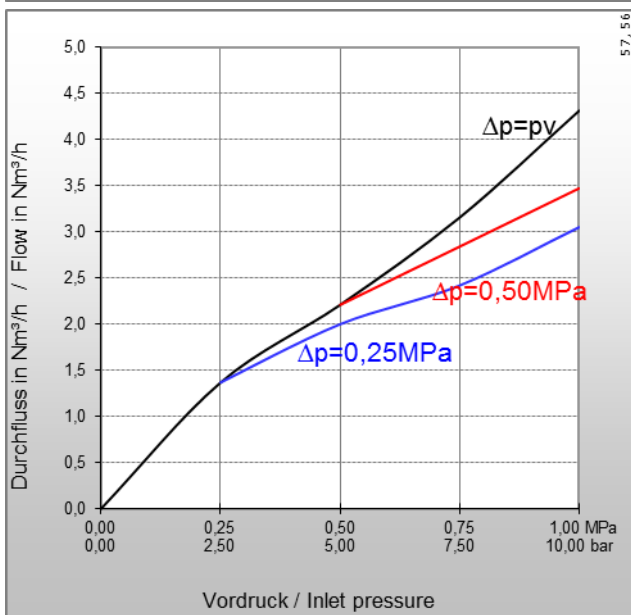
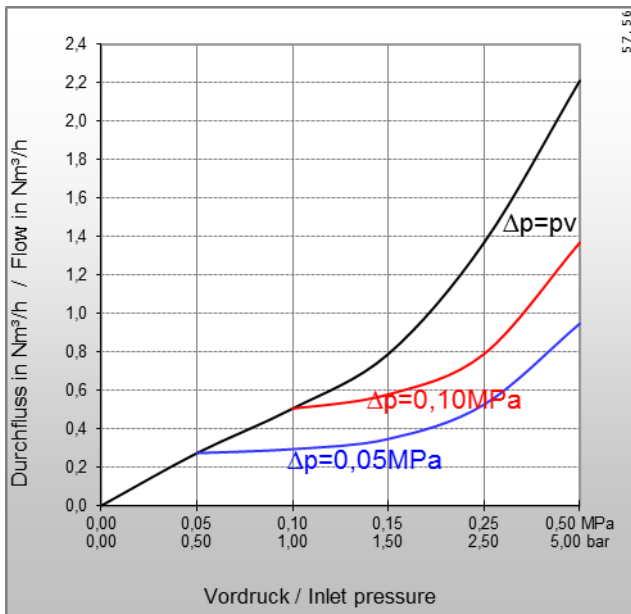
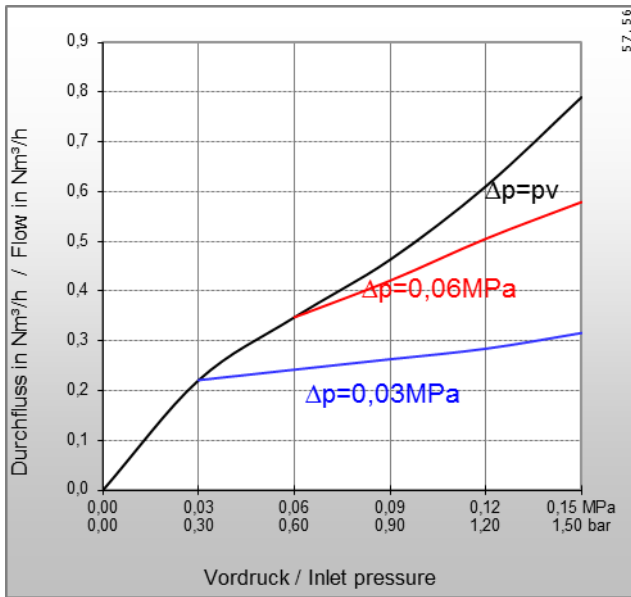
It is not allowed to open the safety devices.

Technical Data:

Gas types:	Acetylene (A)	Hydrogen (H)	Ethylene (E) Natural Gas (M) (Methane) Propane (P)	Oxygen (O)	Compressed Air (D)
Working pressure:	0,10 MPa 1,0 bar	0,35 MPa 3,5 bar	0,35 MPa 3,5 bar	1,0 MPa 10 bar	1,0 MPa 10 bar
Cracking pressure:	70 mbar position-independent				
Ambient temperature:	-20°C up to +70°C				
Threads: EN 560, ISO / TR 28821	UNF3/8-24LH			UNF3/8-24RH	
Measure and weight:	diameter:	length:		weight:	
	15,0 mm	41,3 mm		32,0 g	

Other materials and surface finishing on request.

The working pressures approved by the UL are different to what is stated above.
Further information in this regard can be provided on request



Type: MDG

Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

Δp = Primary pressure minus Secondary pressure

Conversion Factors:

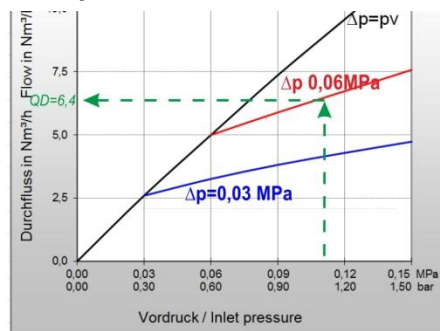
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

1 m³/h = 35,31 cu ft/h

	A	H	P	M	M	O	E	L
QG ▶	C ₂ H ₂	H ₂	C ₃ H ₈	CH ₄ +C	CH ₄	O ₂	C ₂ H ₄	C ₃ H ₆
F	1,2	3,8*	0,90	1,25	1,4	0,95	1,02	0,92

* Conversion factor 2.5 for devices comprising a flame arrester
The conversion factor for free flow is 3.8.
(Reference: BAM report 220, D. Lietze)

Example:



$$QG = QD \times F$$

$$QG \blacktriangleright A = 6,4 \times 1,2 = 7,68 \text{ m}^3/\text{h C}_2\text{H}_2$$

QG = flow / gas type

F = conversion factor

QD = flow / air

Certification/ Technical Standards/ Rules

BAM Federal Institute for Materials Research and Testing, UL Underwriters Laboratories Inc., DGUV employer's liability insurance association rules and regulations, DVS German Association for Welding, Cutting and Allied Processes, TRBS German Technical rules for operation safety

Standards/ Approvals

Company certified according to ISO 9001:2015 and ISO 14001:2015, CE-marking according to: Pressure Equipment Directive 2014/68/EU

(Subject to change without notice)