IBEDA SOLUTIONS FOR GASES

Safety device with multiple function: DGNH

Type DGNH for connecting at cylinder regulators and tapping points

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

- avoids dangerous gas mixtures by a gas non-return valve (NV)
- stops flashback through flame arrestor (FA)
- a temperature-sensitive cut-off valve stops the gas flow when a predetermined temperature is exceeded (TV)
- a dust filter protects the gas non-return valve against contamination
- every safety device is 100% tested
- all metal components in brass 2.0401 / spring 1.4310

Safety elements of the IBEDA Safety device DGNH:

- NV Gas non-return valve
- FA Flame arrestor
- TV Temperature-sensitive cut-off valve

Additional features:

- DF Dust filter

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) Industrial Gas (C)	Natural Gas (M) (Methane), Propane (P)
Working pressure:	0,25 MPa 2,5 bar	1,0 MPa 10,0 bar	1,0 MPa 10,0 bar
Cracking pressure:	10 mbar position-independent		
Gas temperature:	-20°C up to +70°C		
Ambient temperature:	-20°C up to +70°C		
Threads: EN 560 ISO / TR 28821	G3/8LH M16x1,5LH UNF9/16-18LH UNF5/8-18LH 1/4NPT		

Measure and weight:	diameter:	length:	weight:
	22,0 mm	87,0 mm	153,0 g
Applications:			
Process:	welding	cutting	heating
	up to 30 mm	up to 200 mm	up to 100 mm

Other materials, surface finishing, gas types and additional connections available on request.

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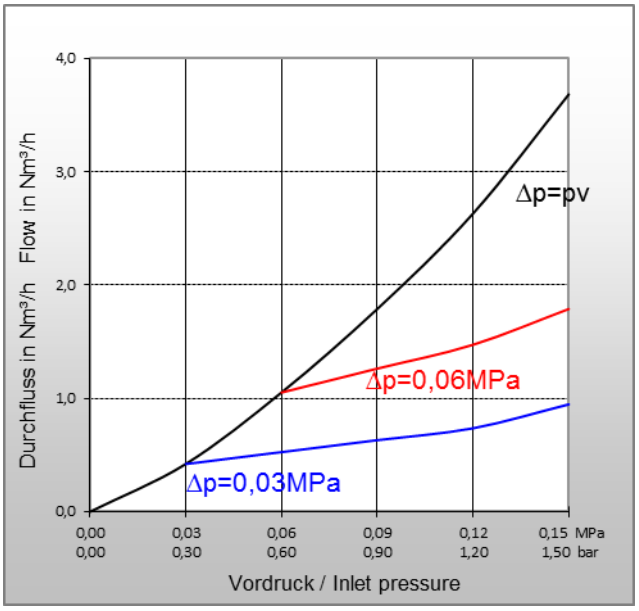
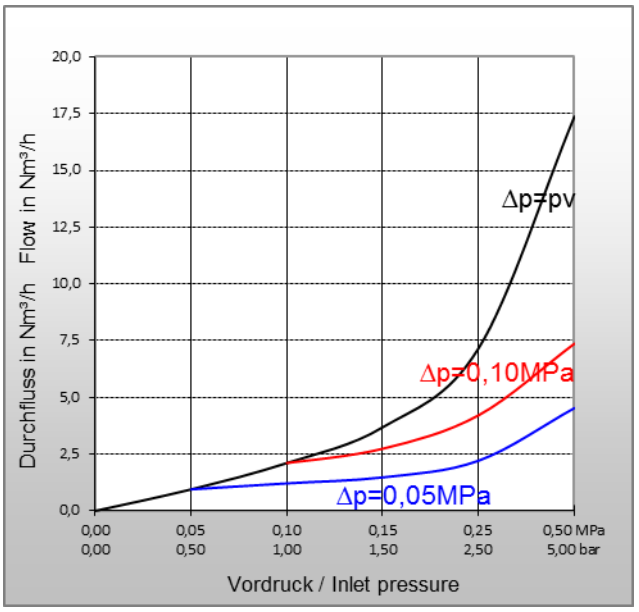
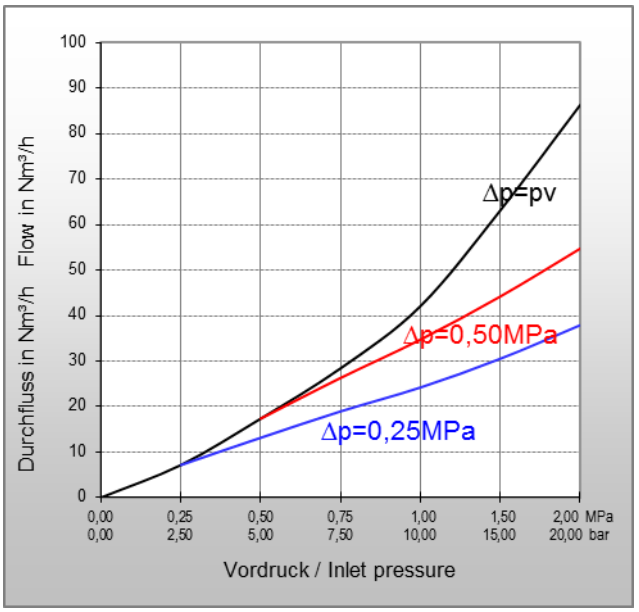






Type: **DGNH**

Flow rates [air]:

pv = Primary pressure
ph = Secondary pressure
Δp = Primary pressure minus Secondary pressure

Conversion Factors:

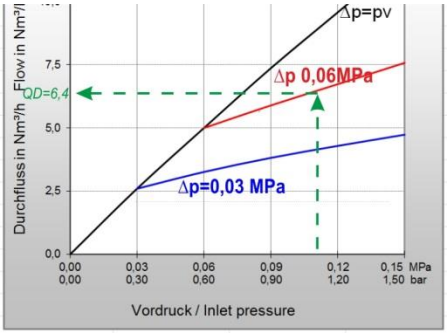
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

1 m^3/h = 35,31 cu ft/h

	A	H	P	M	M	O	E	L
QG ►	C_2H_2	H_2	C_3H_8	CH_4+C	CH_4	O_2	C_2H_4	C_3H_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 arrestor
The conversion factor for free flow is 3.8.
(Reference: BAM report 220, D. Lietze)

Example:



QG = QD x F

QG ► A = 6,4 x 1,2 = 7,68 m^3/h C_2H_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)

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