IBEDA SOLUTIONS FOR GASES

Safety device with multiple function: DGN-VA

Type DGN-VA for protection of cylinder regulators, tapping points and distribution lines

The safety device DGN-VA 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 stainless steel 1.4305 / spring 1.4310

Safety elements of the IBEDA Safety Device DGN-VA:

- 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 (Methane) (M) Propane (P)	Oxygen (O)	Compressed Air (D)
Working pressure:	0,15 MPa 1,5 bar	0,35 MPa 3,5 bar	0,50 MPa 5,0 bar	2,5 MPa 25 bar	2,5 MPa 25 bar
Cracking pressure:	50 to 70 mbar position-independent				
Gas temperature:	-20°C up to +70°C (Oxygen -20°C up to +60°C)				
Ambient temperature:	-20°C up to +70°C				
Threads: ANSI/ASME B1.20.1	1/4NPT F/F[3)] 1/4NPT F/M[3)] 1/4NPT M/F[3)] 3/8NPT F/F[3)]			1/4NPT F/F[3)] 1/4NPT F/M[3)] 1/4NPT M/F[3)] 3/8NPT F/F[3)]	

Measure and weight:	diameter:	length:	weight:
	23,0 mm	92,0 mm	211,0 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.
The flashback arrestor meets the test criteria of the Australian standard AS4603:1999
The working pressures approved by the UL are different to what is stated above.
Further information in this regard can be provided on request

[3)] F = Female, M = Male

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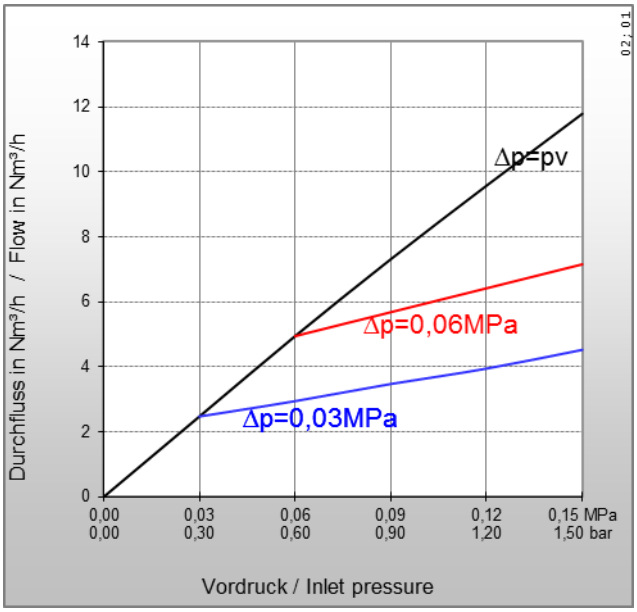
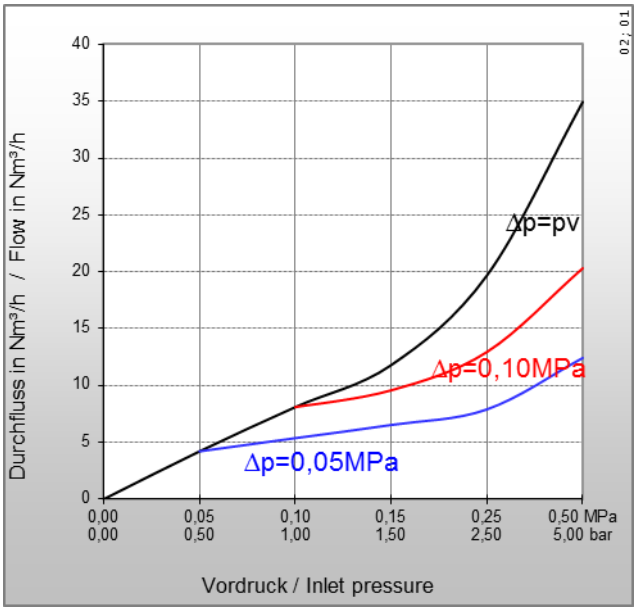
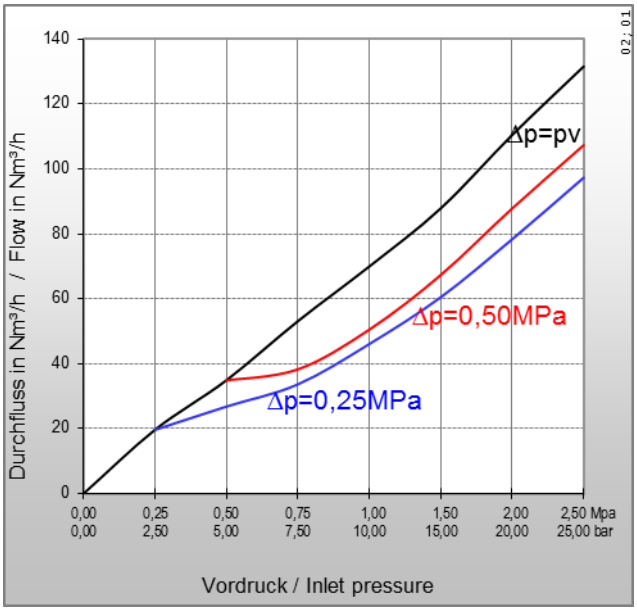






Type*:* **DGN-VA**

Flow rates [air]:

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

Conversion Factors:

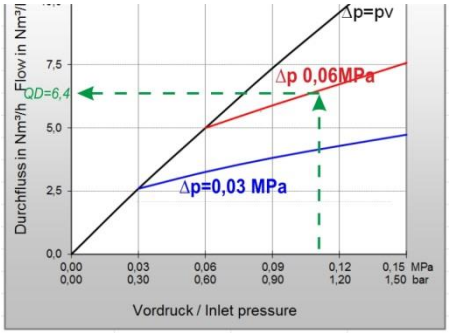
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

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 m³/h C_2H_2

QG = flow / gas type
F = conversion factor
QD = flow / air

Certification/ Technical Standards/ Rules

TRBS German Technical rules for operation safety, DVS German Association for Welding, Cutting and Allied Processes, DGUV German Employer´s liability insurance association rules and regulations.

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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