Safety device with multiple function: DG91N-VA

Type DG91N-VA for protection of single cylinder and tapping points

The safety device DG91N-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 safety device DG91N-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.

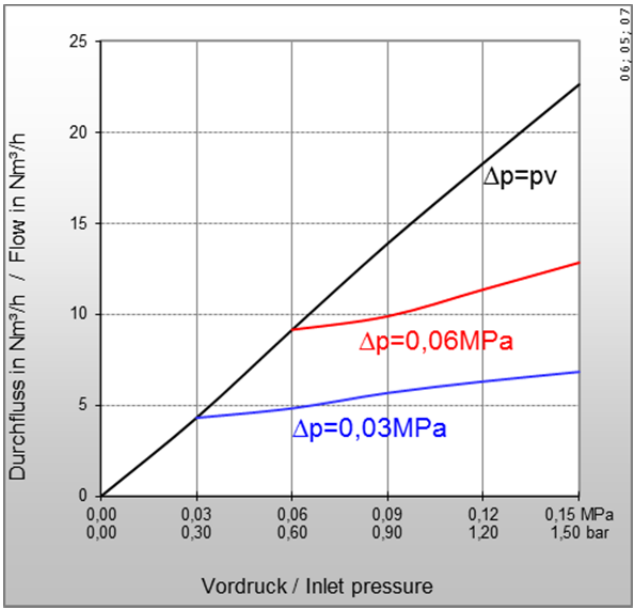
Technical Data:

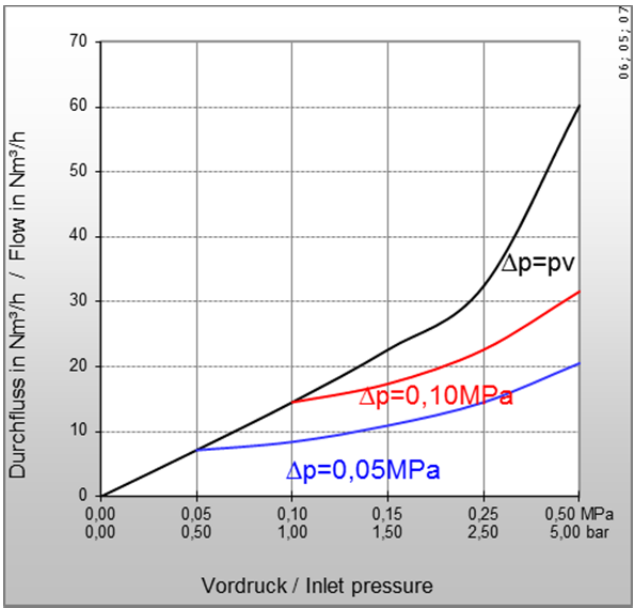
Gas types:	Acetylene (A)	Hydrogen (H) Industrial gas (C)	Natural Gas (Methane) (M) Propane (P)	Oxygen (O)	Compressed Air (D)
Working pressure:	0,15 MPa 1,5 bar	0,40 MPa 4,0 bar	0,50 MPa 5,0 bar	2,5 MPa 25 bar	2,5 MPa 25 bar
Cracking pressure:	10 mbar position-independent				
Ambient temperature:	-20°C up to +70°C				
Threads: ANSI/ASME B1.20.1	1/4NPT M/F[3)] 1/2NPT M/F[3)]				

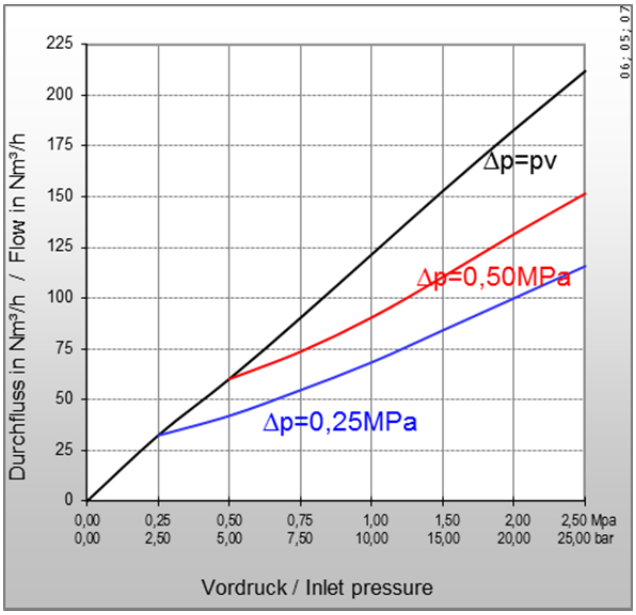
Measure and weight:	diameter:	length:	weight:
	32,0 mm	103 mm	370,0 g

Applications:			
Process:	welding	cutting	heating
	up to 30 mm	up to 700 mm	> 100 mm

Other materials, surface finishing, gas types and additional connections available 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
[3)] F = Female, M = Male







Type*:* **DG91N-VA**

Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

Δp = Primary pressure minus Secondary pressure

Conversion Factors:

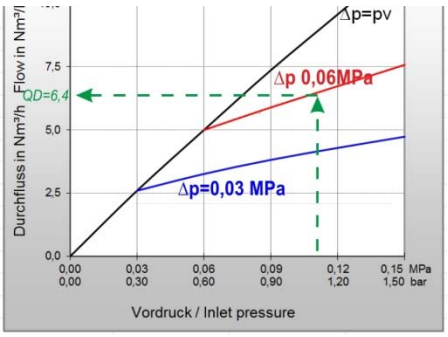
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

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

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(Subject to alteration without prior notice)