

## Safety device with multiple function: **DG91NH 0,5**

### Type DG91NH 0,5 for connecting at cylinder regulators and tapping points

The safety device DG91NH 03,5 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 safety device DG91NH 0,5:

- 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 Industrial Gas (H) (C)	Natural Gas (Methane), Propane (M) (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		
Ambient temperature:	-20°C up to +70°C		
Threads: EN 560 ISO / TR 28821	1/4NPT M/ F <sup>3)</sup>		1/4NPT M/ F <sup>3)</sup>
Measure and weight:	diameter:	length:	weight:
	32,0 mm	107,0 mm	393,0 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.

<sup>3)</sup> F = Innengewinde, M = Außengewinde

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### Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

$\Delta p$  = Primary pressure minus Secondary pressure

### Conversion Factors:

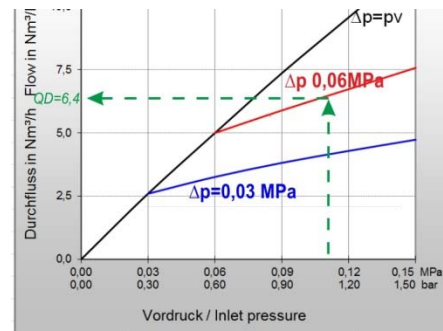
0,1 MPa = 1 bar = 100 kPa = 14,504 psi

1 m<sup>3</sup>/h = 35,31 cu ft/h

	A	H	P	M	M	O	E	L
QG ►	C <sub>2</sub> H <sub>2</sub>	H <sub>2</sub>	C <sub>3</sub> H <sub>8</sub>	CH <sub>4</sub> +C	CH <sub>4</sub>	O <sub>2</sub>	C <sub>2</sub> H <sub>4</sub>	C <sub>3</sub> H <sub>6</sub>
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:



$$QG = QD \times F$$

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

QG = flow / gas type

F = conversion factor

QD = flow / air

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(Subject to alteration without prior notice)

