

Safety device with multiple function: DEMAX5N

Type DEMAX5N for connecting at cylinder regulators and tapping points

The safety device DEMAX5N 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 DEMAX5N:

- 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.

The safety device DEMAX5N can be repaired by a qualified and authorized person.

The single flashback arrestor units contained in this safety device can be replaced, but they must not be opened.

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	0,30 MPa 3,0 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: EN 560 ISO/TR 28821	G3/8LH G1/2LH G3/4LH G1LH G1RH-F ³⁾ UNF9/16-18LH 1NPT-F ³⁾			G3/8RH G1/2RH G3/4RH G1RH G1RH-F ³⁾ UNF9/16-18RH 1NPT-F ³⁾	
Measure and weight:	diameter:	length:		weight:	
	64,0 mm	111,0 mm		1269,0 g	
Applications:					
Process:	welding	cutting		heating	
	up to 30 mm	> 700 mm		> 100 mm	

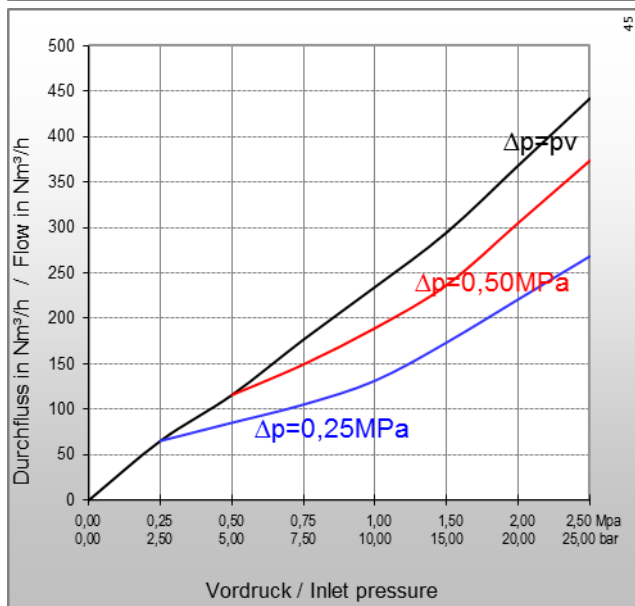
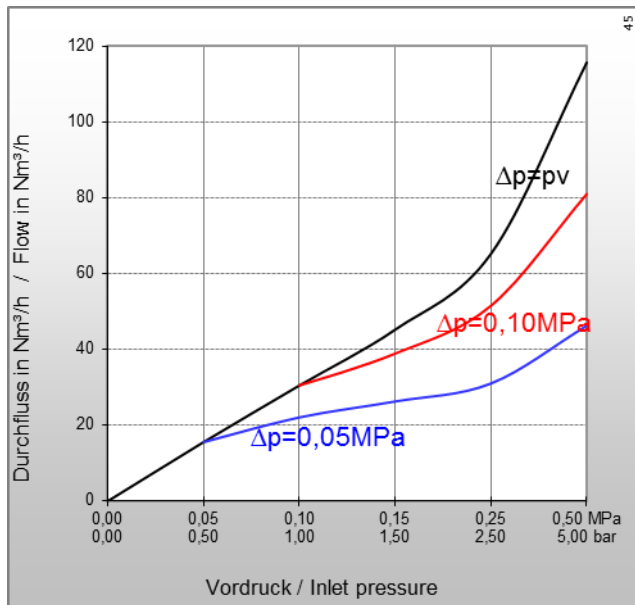
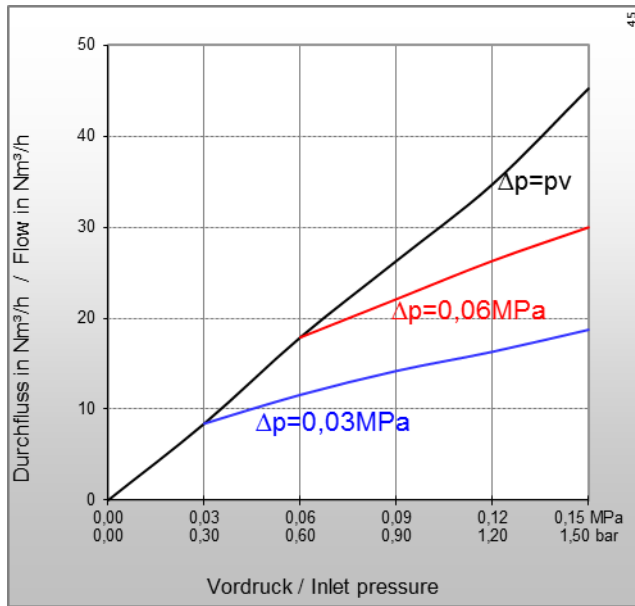
Other materials, surface finishing, gas types and additional connections available on request.

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



Type: DEMAX5N

Flow rates [air]:

p_v = Primary pressure

p_h = Secondary pressure

Δp = Primary pressure minus Secondary pressure

Conversion Factors:

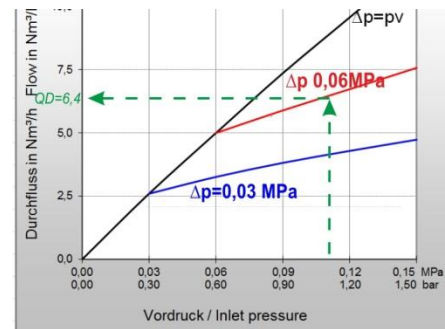
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

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)