

Safety device with multiple function: **DGN-SS**

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

The safety device DGN-SS 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 DGN-SS:

- NV Gas non-return valve (check 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 authorized 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.

Optional flashback arrestor testing unit model PVGD.

It is not allowed to disassemble the safety devices.



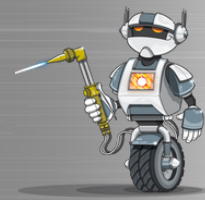
Technical Data:					
Gas types:	Acetylene (A)	Hydrogen (H) Industrial gas (C)	Natural Gas (Methane) (M) Propane (P)	Oxygen (O)	Compressed Air (D)
Working pressure:	15 PSI 1.0 bar	50 PSIG 3.5 bar	50 PSIG 3.5 bar	143 PSIG 10 bar	143 PSIG 10 bar
Cracking pressure:	1 - 2 PSG /50 to 70 mbar position-independent				
Gas temperature:	-4°F /-20°C up to +158°F/+70°C (Oxygen -4°F/-20°C up to +140°F/+60°C)				
Ambient temperature:	-4°F/-20°C up to +158°F/+70°C				
Threads: ANSI/ASME B1.20.1	1/4" NPT F/F 1/4" NPT F/M 1/4" NPT M/F 3/8" NPT F/F			1/4" NPT F/F 1/4" NPT F/M 1/4" NPT M/F 3/8" NPT F/F	
Measure and weight:	diameter:	length:		weight:	
	.91" / 23.0 mm	3.62" / 92.0 mm		27.44 oz / 11.0 g	
Applications:					
Process:	welding	cutting		heating	
	up to 1.18" / 30 mm	up to 7.87" / 200 mm		up to 3.94" / 100 mm	

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

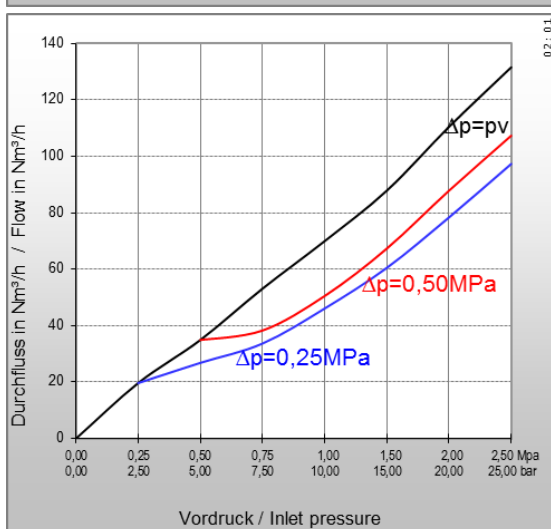
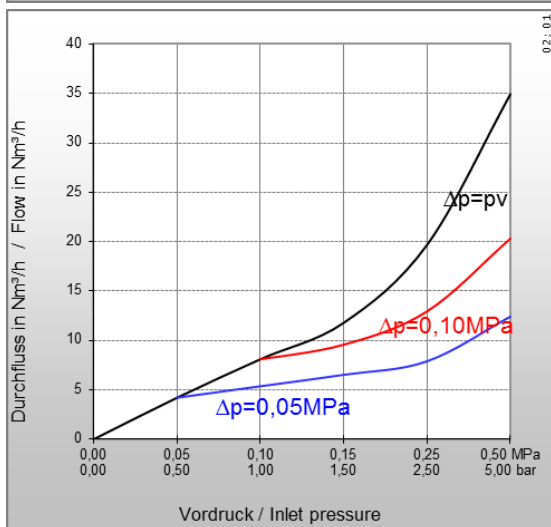
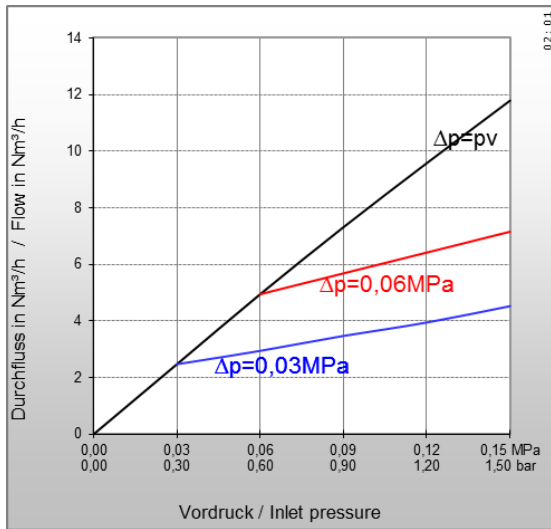
The flashback arrestor meets the test criteria of the Australian standard AS4603:1999

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



Safety Device according to DIN EN ISO 5175-1



Type: DGN-SS Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

Δp = Primary pressure minus Secondary pressure

Conversion Factors:

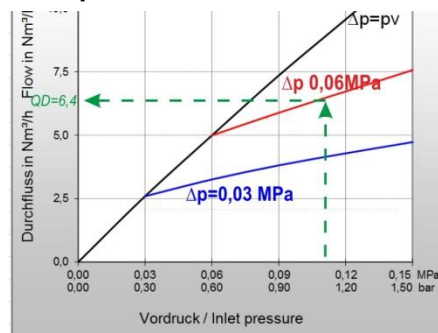
0.1 MPa = 1 bar = 100 kpa = 14,504 psi

1 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

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