GAS CUTTING
AND WELDING EQUIPMENT

Safety Device – DGN

The safety device DGN 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 Hi-Lo UK DG91N

- 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) Propylene[2]	Natural Gas (Methane) (M) Propane (P)	Ethylene [2] (E)	Oxygen (O)	Compressed Air (D)
Working Pressure:	0.15 MPa 1.5 bar	0.35MPa 3.5 bar	0.50 MPa 5.0 bar	0.40MPa 4.0 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 M16x1,5LH UNF9/16-18LH UNF5/8-18LH 1/4NPT				G1/4RH G3/8RH M16x1,5RH UNF9/16-18RH UNF5/8-18RH 1/4NPT	
Measure and weight	Diameter		Length		Weight	
	22.0mm		87.0mm		153g	
Applications						
Process:	Welding		Cutting		Heating	
	Up to 30mm		Up to 200mm		Up to 100mm	

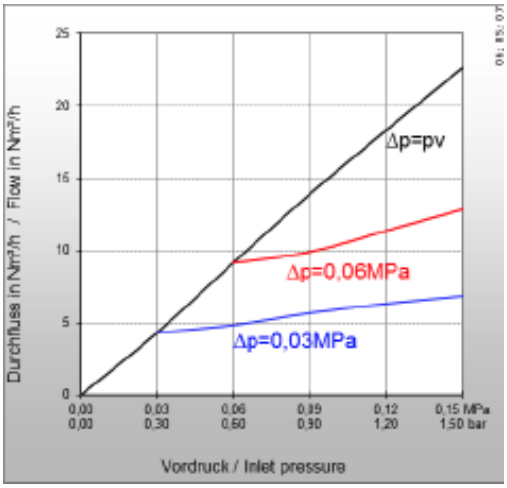
Other materials, surface finishing, gas types and additional connections available on request.
The working pressures approved by the UL are different to what is stated above. Further information in this regard can be provided on request
2) These gas types are not covered by the BAM certification.

GAS CUTTING
AND WELDING EQUIPMENT

Type: DGN

Flow rates (air):

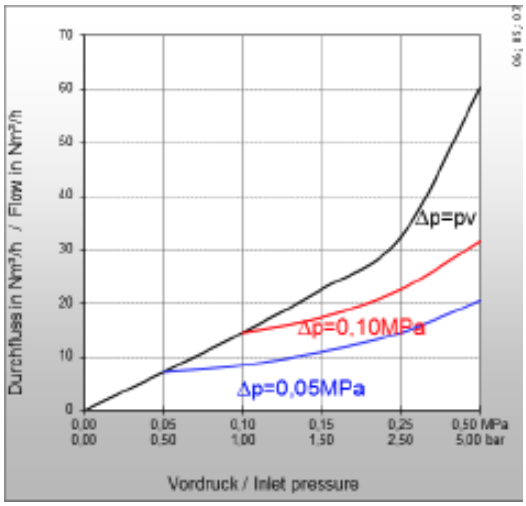
Pv= Primary pressure
Ph = Secondary pressure
Δp = Primary pressure minus Secondary pressure



Conversion Factors:

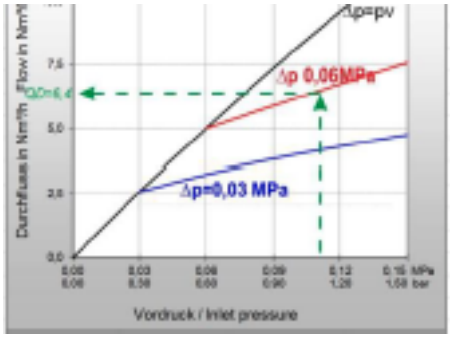
0,1 MPa = 1 bar = 100 kpa = 14,504 psi
1 m3/h = 35,31 cu ft/h

	A	H	P	M	M	O	E	L
QG >	C_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

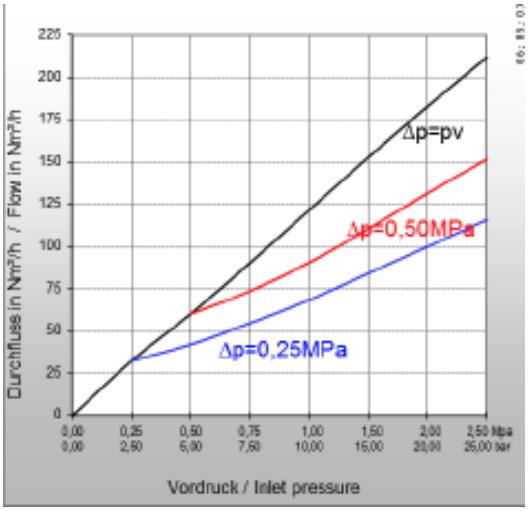


* Conversion factor 2.5 for devices comprising a flame arrestor
The conversion factor for free flow is 3.8 (
Reference: BAM report 220, D .Lietze)

Example:



QG = QD x F
QG ► A = 6,4 x 1,2 = 7,68 m³/h C2H2
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