

Safety device with multiple function: **DG91UA**

Type DG91UA for torch side protection

The safety device DG91UA according to DIN EN ISO 5175-1:

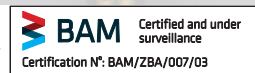
- avoids dangerous gas mixtures by a gas non-return valve (NV)
- stops flashback through flame arrestor (FA)
- a dust filter protects the gas non-return valve against contamination
- every safety device is 100% tested
- all metal components in brass 2.0401 / spring 1.4310

Safety elements of the IBEDA Safety device DG91UA:

- NV Gas non-return valve
- FA Flame arrestor

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:	50 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 M16x1,5LH UNF9/16-18LH UNF5/8-18LH UNF7/8-14LH			G1/4RH G3/8RH G1/2RH M16x1,5RH UNF9/16-18RH UNF5/8-18RH UNF7/8-14RH	
Measure and weight:	diameter:		length:		weight:
	32,0 mm		128,0 mm		439,0 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

Type: DG91UA

Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

Δp = Primary pressure minus Secondary pressure

Conversion Factors:

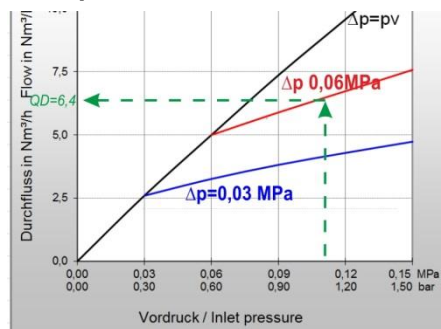
0,1 MPa = 1 bar = 100 kPa = 14,504 psi

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 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

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)

