

## Safety device with multiple function: **SIMAX3N**

### Type SIMAX3N for protection of Tapping Points, Distribution Lines and Gas Manifold Systems

The safety device SIMAX3N 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 SIMAX3N:

- 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 SIMAX3N 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:

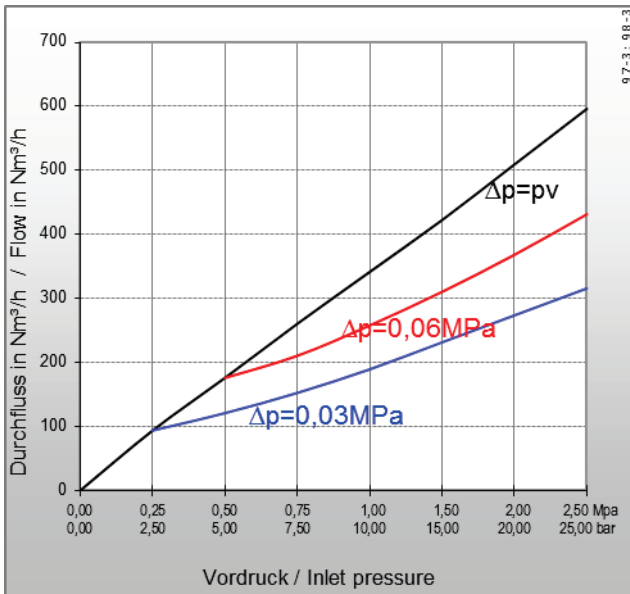
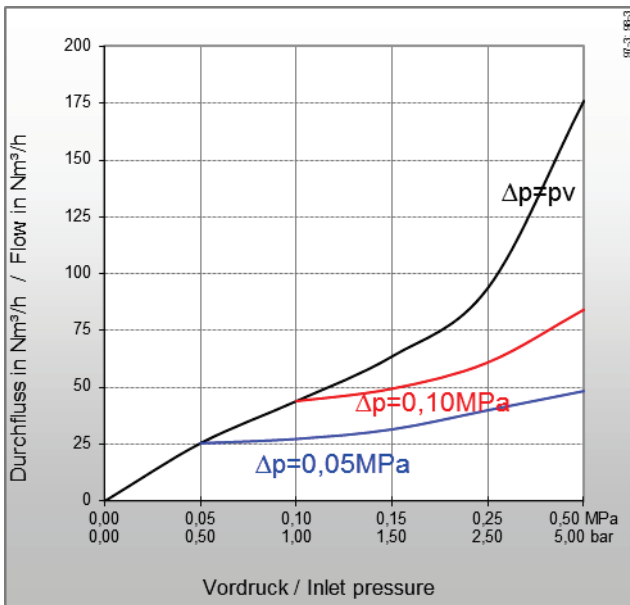
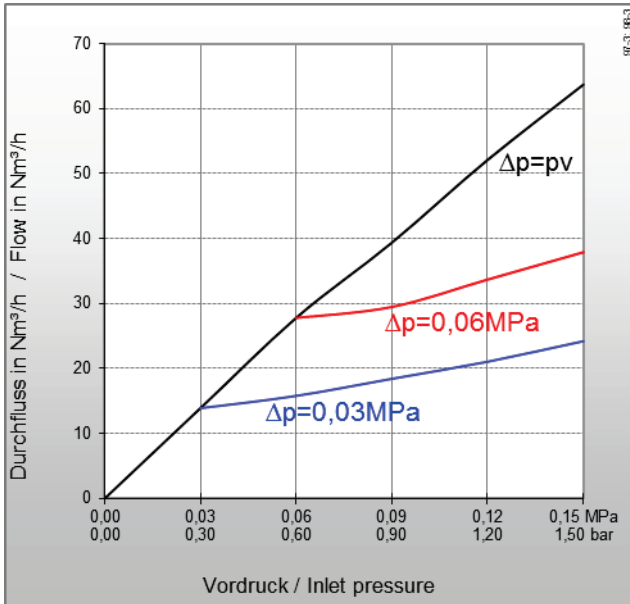
Gas types:	Acetylene (A)	Hydrogen (H) Industrial gas (C)	Natural Gas (Methane) (M) Propane (P)	Oxygen (O)	Compressed Air (D)
<b>Working pressure:</b>	0,15 MPa 1,5 bar	0,30 MPa 3,0 bar	0,50 MPa 5,0 bar	2,5 MPa 25 bar	2,5 MPa 25 bar
<b>Cracking pressure:</b>	50 mbar position-independent				
<b>Gas temperature:</b>	-20°C up to +70°C ( Oxygen -20°C up to +60°C)				
<b>Ambient temperature:</b>	-20°C up to +70°C				
<b>Connection:</b>	Maximum connectable inner tube/ hose $\varnothing$ 25 mm				
<b>Threads:</b> EN 560, ISO / TR 28821	G1RH F <sup>3)</sup>			G1RH F <sup>3)</sup>	
<b>Measure and weight:</b>	diameter:	length:		weight:	
	88,0 mm	163,0 mm		3351,0 g	
<b>Applications:</b>					
<b>Process:</b>	welding	cutting		heating	
	up to 30 mm	> 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

<sup>3)</sup> F = Female, M = Male



## Type: SIMAX3N

### Flow rates [air]:

pv = Primary pressure

ph = Secondary pressure

$\Delta p$  = Primary pressure minus Secondary pressure

### Conversion Factors:

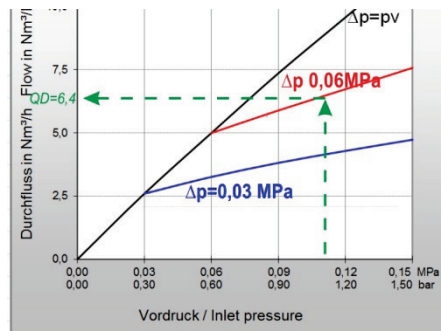
0,1 MPa = 1 bar = 100 kpa = 14,504 psi

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 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

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)