Safety device with multiple function: **DEMAX5N-VA**

**Type DEMAX5N-VA for connecting at cylinder regulators and tapping points**

The safety device DEMAX5N-VA according to DIN EN ISO 5175-1:
- avoids dangerous gas mixtures by a gas non-return valve (NV)
- stops flashback through flame arrestedor (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 IBEDA Safety Device DEMAX5N-VA:**
- NV  Gas non-return valve
- FA  Flame arrester
- 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 arrester testing unit model PVGD.

The safety device DEMAX5N-VA can be repaired by a qualified and authorized person.
The single flashback arrester units contained in this safety device can be replaced, but they must not be opened.

<table>
<thead>
<tr>
<th>Technical Data:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas types:</strong></td>
<td>Acetylene (A)</td>
</tr>
<tr>
<td>Working pressure:</td>
<td>0,15 MPa 1,5 bar</td>
</tr>
<tr>
<td>Cracking pressure:</td>
<td>50 to 70 mbar position-independent</td>
</tr>
<tr>
<td>Gas temperature:</td>
<td>-20°C up to +70°C (Oxygen -20°C up to +60°C)</td>
</tr>
<tr>
<td>Ambient temperature:</td>
<td>-20°C up to +70°C</td>
</tr>
<tr>
<td>Threads:</td>
<td>EN 560, ISO/TR 28821</td>
</tr>
<tr>
<td>Measure and weight:</td>
<td>diameter: 64,0 mm</td>
</tr>
<tr>
<td>Applications:</td>
<td>Process: welding cutting heating</td>
</tr>
<tr>
<td></td>
<td>Process: up to 30 mm &gt; 700 mm &gt; 100 mm</td>
</tr>
</tbody>
</table>

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: **DEMAX5N-VA**

**Flow rates [air]:**
- $p_v =$ Primary pressure
- $p_h =$ Secondary pressure
- $\Delta p =$ Primary pressure minus Secondary pressure

**Conversion Factors:**
- $0,1 \text{ MPa} = 1 \text{ bar} = 100 \text{ kpa} = 14,504 \text{ psi}$
- $1 \text{ m}^3/\text{h} = 35,31 \text{ cu ft/h}$

<table>
<thead>
<tr>
<th>$Q_G$</th>
<th>$C_2H_2$</th>
<th>$H_2$</th>
<th>$C_3H_8$</th>
<th>$CH_4+C$</th>
<th>$CH_4$</th>
<th>$O_2$</th>
<th>$C_2H_2$</th>
<th>$C_3H_6$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$F$</td>
<td>1,2</td>
<td>3,8</td>
<td>0,90</td>
<td>1,25</td>
<td>1,4</td>
<td>0,95</td>
<td>1,02</td>
<td>0,92</td>
</tr>
</tbody>
</table>

* 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:**

\[ Q_G = Q_D \times F \]

\[ Q_G = A = 6,4 \times 1,2 = 7,68 \text{ m}^3/\text{h} C_2H_2 \]

$Q_G =$ flow / gas type

$F =$ conversion factor

$Q_D =$ 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

(Subject to change without notice)