The safety device (non-return valve / check valve) **GRV32-VA:**

**Type GRV32-VA for protection of pipelines, tapping points and equipment**

The safety device GRV32-VA:
- avoids dangerous gas mixtures by a gas non-return valve (NV)
- 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 IBEKA non-return valve GRV32-VA:**
- NV Gas non-return valve

**Additional features:**
- DF Dust filter

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**Technical Data:**

| Safety device GRV according to DIN EN ISO 5175-2: not flashback resistant, not flashback proof |
|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Gas types:                                        | Industrial gas (C)                                | Natural Gas (Methane) cleaned Bio gas (M)         | Propane (P)                                      | Oxygen (O)                                       | Compressed Air (D)                                | Nitrogen (N)                                     |
| Working pressure:                                | 2,5 MPa                                           | 25.0 bar                                          |                                                   |                                                   |                                                   |                                                   |
| Cracking pressure:                               | 4 to 6 mbar position-independent                  |                                                   |                                                   |                                                   |                                                   |                                                   |
| Gas temperature:                                 | -20°C up to +70°C (Oxygen -20°C up to +50°C)      |                                                   |                                                   |                                                   |                                                   |                                                   |
| Ambient temperature:                             | -20°C up to +70°C                                 |                                                   |                                                   |                                                   |                                                   |                                                   |
| Threads:                                         | DIN ISO 228 G1 1/4RH F/F³                        | G1 1/4RH F/F³                                     | 1 1/4NPT F/F³                                    | 1NPT F/F³                                        |                                                   |                                                   |
| Measure and weight:                              | diameter: 60 mm                                  | length: 100 mm                                   | weight: 1.2 kg                                   |                                                   |                                                   |                                                   |
| Application:                                     | Heating burner, gas mixing- and control systems, applications according to EN 746-2 |

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

³ F = Female, M = Male
**Type: GRV32-VA**

**Flow rates [air]:**

\[ pv = \text{Primary pressure} \]
\[ ph = \text{Secondary pressure} \]
\[ \Delta p = \text{Primary pressure minus Secondary pressure} \]

**Conversion Factors:**

\[ 10 \text{ kPa} = 0.01 \text{ MPa} = 0.1 \text{ bar} = 1.45 \text{ psi} \]
\[ 1 \text{ m}^3/\text{h} = 35.31 \text{ cu ft/h} \]

<table>
<thead>
<tr>
<th>QG</th>
<th>H</th>
<th>P</th>
<th>L</th>
<th>M</th>
<th>M</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>3.8*</td>
<td>0.9</td>
<td>0.92</td>
<td>1.25</td>
<td>1.4</td>
<td>0.95</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:**

\[ QG = QD \times F \]
\[ QG = P \times 0.9 = 63 \text{ m}^3/\text{h} \text{ C}_3 \text{H}_8 \]
\[ QG = \text{flow} / \text{gas type} \]
\[ F = \text{conversion factor} \]
\[ QD = \text{flow} / \text{air} \]

**Declaration of conformity**

We, the manufacturer, hereby declare that the safety devices in accordance with the requirement of the following directives and standards

- Standard: DIN EN ISO 5175 Part 2

Safety devices in accordance with DIN EN ISO 5175-2 for combustible or oxidising gases (group 1), Model GRV, are subject to the conformity assessment procedure pursuant to Pressure Equipment Directive 2014/68/EU, Category I, Module A.

**Certification / Technical Standards / Rules**

- BAM Federal Institute for Materials Research and Testing
- DVGW German Technical and Scientific Association for Gas and Water
- DGUV German Health and Safety 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)