Safety Relief Valve HON 832

PRODUCT INFORMATION

Serving the Gas Industry Worldwide

Honeywell
SAFETY RELIEF VALVE HON 832
Application, characteristics, technical data

Application

• As leak gas SRV with internal vent connection (function class B in accordance with DIN 33821)
• Variant as proportional SRV with autonomous vent connection (function class A in accordance with DIN 33821)
• For systems in municipal applications and industrial operations
• Leak gas SRV type “B”, e.g. for blowing off gas leakages downstream of gas pressure regulators to prevent the SSV from tripping by accident in the event of gas pressure regulator leaks due to consumer zero droop
• Can be used for gases in accordance with DVGW Worksheet G 260 and neutral, non-aggressive gases; other gases on request

Characteristics

• Simple, compact design
• Position-independent installation
• Safe operation
• High actuating accuracy
• Integrated vent line for use as leak gas SRV (type “B”)

Device-specific operating instructions, maintenance instructions, spare parts drawings, and spare parts lists are provided in the brochure “Operating and Maintenance Manual / Spare Parts List 832.20”.
## TECHNICAL DATA

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. permissible pressure PS</td>
<td>100 bar</td>
</tr>
<tr>
<td>Max. operating pressure p(_{\text{max}})</td>
<td>100 bar</td>
</tr>
</tbody>
</table>

### Specific pressure range \(W_u\) and accuracy class AC

<table>
<thead>
<tr>
<th>No.</th>
<th>Colour</th>
<th>Wire Ø</th>
<th>(W_u) in bar</th>
<th>Accuracy class AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>grey</td>
<td>5</td>
<td>0.5 to 2</td>
<td>5/2.5</td>
</tr>
<tr>
<td>2</td>
<td>yellow</td>
<td>5.6</td>
<td>1 to 4</td>
<td>2.5/1</td>
</tr>
<tr>
<td>3</td>
<td>brown</td>
<td>6.3</td>
<td>2 to 8</td>
<td>2.5/1</td>
</tr>
<tr>
<td>4</td>
<td>red</td>
<td>7</td>
<td>4 to 16</td>
<td>2.5/1</td>
</tr>
<tr>
<td>5</td>
<td>green</td>
<td>5/2.5</td>
<td>12 to 30</td>
<td>2.5/1</td>
</tr>
</tbody>
</table>

### Valve seat diameter

8 mm

### Valve flow rate coefficient KG:

32 m\(^3\)/(h · bar)

### Connection

Pipe connections according to DIN EN ISO 8434-1 (DIN 2353), PN 100 for pipe outer diameters:

- Inlet: 12 mm
- Outlet: 16 mm, 20 mm, 25 mm, 28 mm

### Spring compartment venting

- Leak gas SRV type “B”
- Proportional SRV type “A”

Internal via vent line

Autonomous vent connection with pipe outer diameter 12 mm

### Material

- Main valve body: Aluminium alloy
- Spring housing: Aluminium alloy
- Measuring diaphragm: NBR (Perbunan)
- Valve trim: FKM

### Weight

Approx. 3 kg

### Temperature range

\(-20 \, ^\circ\text{C} \text{ to } +60 \, ^\circ\text{C}\)

### CE mark in accordance with PED

In accordance with DIN 33821

### Function and strength

The mechanical components of the device do not have any potential ignition sources, and thus are not subject to ATEX 95 (94/9/EC). Electronic components attached on the device satisfy the ATEX requirements.

*) ◻ = vertical cross section
Dimensions

SAFETY RELIEF VALVE HON 832

E 12
(external vent connection for SRV type “A”, in accordance with DIN 33821)
Note: internal venting sealed
A safety relief valve (SRV) has the task of autonomously releasing a gas flow from a pressurised line, as soon as the pressure in the system to be safeguarded reaches the set response pressure through increasing increments. The SRV closes again when the pressure in the system to be safeguarded drops below the closing pressure.

The Safety relief valve HON 832 is a directly acting device (works without auxiliary energy) with spring loading.

The safety device is designed in two variants: as leak gas SRV and as proportional SRV. When the device is used as a leak gas SRV (type “B” in accordance with 33821) the spring space is vented internally via the vent line. When the device is used as a proportional SRV (type “A” in accordance with DIN 33821) on the spring housing a connection piece is arranged for the autonomous vent line to the free atmosphere.

The pressure to be monitored on the inlet side (actual value) is switched internally and compared with the specified force of the adjustable setpoint spring. If the pressure in the system to be safeguarded exceeds the set response pressure, the main valve opens and allows the excess gas to flow off via the outlet line. The safety relief valve closes again automatically when the pressure of the system to be safeguarded drops below the response pressure of the SRV.

The lateral forces that occur due to the setpoint spring are dissipated directly to the housing via the guide bush. This ensures a high reproducible response accuracy.

The valve piston of the main valve is force-relieved through a control spring. Through this measure the valve trim is protected against impermissible stress. The measuring diaphragm is formed as a bead-moulded diaphragm. This means that the high actuating accuracy of the device is also ensured at lower operating temperatures.
SAFETY RELIEF VALVE HON 832

Structure and mode of operation

Leak gas quantity SRV (type “B” in accordance with DIN 33821)

![Diagram of safety relief valve]

- Inlet line
- Internal venting
- Measuring diaphragm
- Setpoint spring
- Setpoint adjuster
- Cover cap
- Outlet line
- Valve seat
- Valve disc with sealing ring
- Spindle bush
- Autonomous vent connection for proportional SRV (Type “A” in accordance with DIN 33821)
- Note: internal venting sealed
**SAFETY RELIEF VALVE HON 832**

Device designation

**Device description (example)**

<table>
<thead>
<tr>
<th>DEVICE DESIGNATION</th>
<th>HON 832 - B - E12 / E20 - 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HON 832</td>
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<tr>
<td><strong>Function class</strong></td>
<td></td>
</tr>
<tr>
<td>Leak gas SRV (type &quot;B&quot; in accordance with DIN 33821)</td>
<td>B</td>
</tr>
<tr>
<td><strong>Connection, inlet</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E12</td>
</tr>
<tr>
<td><strong>Connection, outlet</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E16</td>
</tr>
<tr>
<td></td>
<td>E20</td>
</tr>
<tr>
<td></td>
<td>E25</td>
</tr>
<tr>
<td></td>
<td>E28</td>
</tr>
<tr>
<td><strong>Specific pressure range W_{us} in bar</strong></td>
<td><strong>Spring no.</strong></td>
</tr>
<tr>
<td>0.5 to 2</td>
<td>1</td>
</tr>
<tr>
<td>1 to 4</td>
<td>2</td>
</tr>
<tr>
<td>2 to 8</td>
<td>3</td>
</tr>
<tr>
<td>4 to 16</td>
<td>4</td>
</tr>
<tr>
<td>12 to 30</td>
<td>5</td>
</tr>
</tbody>
</table>

*Optionally with internal and external vent connection*
For More Information
To learn more about Honeywell’s Advanced Gas Solutions, visit www.honeywellprocess.com or contact your Honeywell account manager

GERMANY
Honeywell Process Solutions
Honeywell Gas Technologies GmbH
Osterholzstrasse 45
34123 Kassel, Deutschland
Tel: +49 (0)561 5007-0
Fax: +49 (0)561 5007-107