DK32/ESK3x – now with electrical signal output and latest HART® 7 communication

To meet customer process requirements, KROHNE has been continually developing the variable area flowmeter since 1921, setting standards in this technology.

The most recent example of this is the DK32/ESK3x: the tried and tested advantages of the DK32 series – compact design, no need for straight inlet and outlet sections, mechanical flow setting and display or in combination with a mechanical flow regulator – are now combined with an electrical signal output and digital HART® 7 communication in one device.

That means that the DK32/ESK3x can now be incorporated into continuous recording and control processes whereas previously only limit alarms were possible – and all this at an attractive price-performance ratio.
Fully universal for small flows

Whether for use with gases or liquids, the DK32 series variable area flowmeters are fully universal for even the smallest flows, typically in 4...12 mm / 1/8...1/2” pipelines.

For decades, the devices have proven themselves in the display and monitoring of flows of:
- Process or carrier gases
- Nitrogen, CO₂ or other industrial gases
- Sample flows for process analysers systems
- Seal gas/barrier fluids for sealing systems
- Purge fluids for measuring systems
- Chemicals and additives
- Lubricating, cooling and anti-corrosive agents
- Air or water

Simple, reliable, cost effective

The pipelines are connected to the ¼” NPT female thread via compression fittings. Alternatively, other connection types including flange adapters are available. Straight inlet and outlet sections are not required.

The current flow can be read on the mechanical scale on the DK32 immediately following installation, without having to connect the device to a power supply.

DK32 devices are impressively universal and practically maintenance-free with an unrivalled price-performance ratio, both in terms of purchase and operation.

Highlights

- For liquids and gases
- From simple flow indicator without a power supply to MIN/MAX limit monitoring to 4...20 mA / HART® 7
- Adjusting valve for flow regulation
- Hazardous area approvals

New: electrical signal output for recording, monitoring and control purposes

<table>
<thead>
<tr>
<th>Signal</th>
<th>4...20 mA, 2-wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>12...32 VDC</td>
</tr>
<tr>
<td>Measurement uncertainty</td>
<td>4%</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-40...+70°C/ -40...+128°F</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-40...+140°C/ -40...+284°F</td>
</tr>
<tr>
<td>ATEX / IECEx</td>
<td>II2G Ex i, II2G Ex d, II3G Ex nA/ec, II2D Ex i, II2D Ex t</td>
</tr>
<tr>
<td>NAMUR</td>
<td>NE95, NE21, NE43, NE107</td>
</tr>
<tr>
<td>Housing protection category</td>
<td>IP66/IP68</td>
</tr>
<tr>
<td>Communication</td>
<td>HART® 7.6, tested and registered by FieldComm Group™</td>
</tr>
</tbody>
</table>

Options ATEX/IECEx

<table>
<thead>
<tr>
<th>Type of protection</th>
<th>Ex h</th>
<th>Ex i</th>
<th>Ex d</th>
<th>Ex nA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK32: Local flow rate indication</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DK32/K: Electrical limit switch MAX/MIN</td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
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<tr>
<td>DK32/ESK: electrical signal output 4...20 mA / HART® 7</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

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