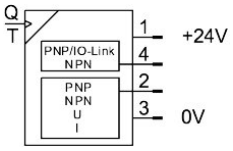
# Flow sensor
# SFAB-200U-HQ10-PNLK-PNVBA-M12

Part number: 8162830






## Data sheet

| Feature | Value |
|---|---|
| Certification | RCM compliance mark<br>c UL us - Listed (OL) |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions |
| Note on materials | RoHS compliant |
| Measured variable | Mass flow<br>Temperature<br>Volume<br>Volumetric flow rate |
| Flow direction | Unidirectional<br>P1 -> P2 |
| Flow measuring range start value | 2 l/min |
| Flow measuring range end value | 200 l/min |
| Temperature measuring range start value | 0 °C |
| Temperature measuring range end value | 50 °C |
| Operating pressure | 0 MPa...1 MPa<br>0 bar...10 bar<br>0 psi...145 psi |
| Operating medium | Argon<br>Compressed air as per ISO 8573-1:2010 [7:4:4]<br>Carbon dioxide<br>Nitrogen |
| Temperature of medium | 0 °C...50 °C |
| Ambient temperature | 0 °C...50 °C |
| Nominal temperature | 23 °C |
| Accuracy of flow rate | ±(3% o.m.v. + 0.3% FS) |
| Accuracy of temperature in ± °C | 5 °C |
| Zero point repetition accuracy in ± %FS | 0.2 %FS |
| Repetition accuracy margin in ± %FS | 0.8 %FS |
| Temperature co-efficient margin in ± %FS/K | typ. 0.1%FS/K |
| Pressure influence of margin in ±%FS/bar | 0.5 %FS/b. |
| Switching output | 2 x PNP or 2 x NPN switchable |
| Switching function | Window comparator |

| Feature | Value |
|---|---|
| | Threshold value comparator |
| Switching element function | N/C contact/N/O contact, switchable |
| On time | 10 ms |
| Switch-off time | 10 ms |
| Max. output current | 100 mA |
| Analog output | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V |
| Flow characteristic curve, start value | 0 l/min |
| Flow characteristic curve, end value | 200 l/min |
| Temperature characteristic curve start value | 0 °C |
| Temperature characteristic curve end value | 100 °C |
| Output characteristic curve initial value | 0 V<br>4 mA |
| End value output characteristic curve | 10 V<br>20 mA |
| Max. load resistance of current output | 500 Ohm |
| Min. load resistance of voltage output | 20 kOhm |
| Short-circuit protection | Yes |
| Overload protection | Available |
| Protocol | IO-Link® |
| IO-Link, revision ID | V1.1 |
| IO-Link, device profile | Function Extended identification<br>Function Measurement data, standard resolution<br>Function Multiple switching signal<br>Firmware update<br>Function Locator<br>Function Product URI<br>Function Teach single value<br>Identification and diagnosis<br>Smart Sensor - SSP 4.1.2 |
| IO-Link, transmission rate | COM3 |
| IO-Link®, SIO mode support | Yes |
| IO-Link, port type | Class A |
| IO-Link, process data length output | 0 bit |
| IO-Link, process data length input | 64 bit |
| IO-Link®, process data content IN | Flow-Measured value 16 bit MDC<br>Flow rate monitoring 2-bit SSC<br>Temperature measured value 16-bit MDC<br>Temperature monitoring 2-bit SSC<br>Volume / mass pulse 1 bit SSC |
| IO-Link®, service data contents IN | Volume / mass measured value 32-bit |
| IO-Link®, minimum cycle time | 1.2 ms |
| IO-Link®, data memory required | 0.5 KB |
| DC operating voltage range | 15 V...30 V |
| Reverse polarity protection | for all electrical connections |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connection technology | M12x1 A-coded as per EN 61076-2-101 |
| Electrical connection 1, number of pins/wires | 5 |
| Electrical connection 1, type of mounting | Screw-type lock<br>not rotatable<br>Compatible with rotatable screw-type lock |
| Type of mounting | With through-hole<br>With DIN rail |
| Mounting position | Any |
| Pneumatic connection | For pneumatic tubing outside diameter 10 mm |
| Product weight | 160 g |
| Housing material | PA-reinforced |

| Feature | Value |
|---|---|
| Display type | Multi-color backlit LCD |
| Degree of protection | IP65 |
| Pressure drop | 100 mbar |
| Corrosion resistance class (CRC) | 2 - Moderate corrosion stress |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |