



Flow monitor

SID10ADBFPKG/US-100



- 1 LED bar display
- 2 setting pushbutton
- 3 Tightening torque 25 Nm



| Product characteristics      |       |                              |
|------------------------------|-------|------------------------------|
| Number of inputs and outputs |       | Number of digital outputs: 2 |
| Process connection           |       | M18 x 1,5 internal thread    |
| Application                  |       |                              |
| Media                        |       | Liquids; Gases               |
| Medium temperature           | [°C]  | -25...80                     |
| Pressure rating              | [bar] | 300                          |
| Liquids                      |       |                              |
| Medium temperature           | [°C]  | -25...80                     |
| Gases                        |       |                              |
| Medium temperature           | [°C]  | -25...80                     |
| Electrical data              |       |                              |
| Operating voltage            | [V]   | 18...36 DC                   |
| Current consumption          | [mA]  | < 60                         |
| Protection class             |       | III                          |
| Reverse polarity protection  |       | yes                          |
| Power-on delay time          | [s]   | 10                           |
| Inputs / outputs             |       |                              |
| Number of inputs and outputs |       | Number of digital outputs: 2 |



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| Outputs                                         |              |                                                              |
|-------------------------------------------------|--------------|--------------------------------------------------------------|
| Total number of outputs                         |              | 2                                                            |
| Output signal                                   |              | switching signal; IO-Link; (configurable)                    |
| Electrical design                               |              | PNP                                                          |
| Number of digital outputs                       |              | 2                                                            |
| Output function                                 |              | normally open / normally closed; (parameterisable)           |
| Max. voltage drop switching output DC           | [V]          | 2.5                                                          |
| Permanent current rating of switching output DC | [mA]         | 250                                                          |
| Short-circuit protection                        |              | yes                                                          |
| Type of short-circuit protection                |              | pulsed                                                       |
| Overload protection                             |              | yes                                                          |
| Measuring/setting range                         |              |                                                              |
| Probe length L                                  | [mm]         | 45                                                           |
| Liquids                                         |              |                                                              |
| Setting range                                   | [cm/s]       | 3...300                                                      |
| Greatest sensitivity                            | [cm/s]       | 3...100                                                      |
| Gases                                           |              |                                                              |
| Setting range                                   | [cm/s]       | 200...3000                                                   |
| Greatest sensitivity                            | [cm/s]       | 200...800                                                    |
| Temperature monitoring                          |              |                                                              |
| Measuring range                                 | [°C]         | 2...80                                                       |
| Resolution                                      | [°C]         | 1                                                            |
| Accuracy / deviations                           |              |                                                              |
| Repeatability                                   | [cm/s]       | 1...5                                                        |
| Note on repeatability                           |              | for water 5...100 cm/s; 25 °C                                |
|                                                 |              | Factory setting                                              |
| Temperature drift                               | [cm/s x 1/K] | 0.1; (for water 5...100 cm/s; 10...70 °C)                    |
| Temperature gradient                            | [K/min]      | 300                                                          |
| Switch point accuracy                           | [cm/s]       | ± 2...± 10; (for water 5...100 cm/s; 25 °C; Factory setting) |
| Hysteresis                                      | [cm/s]       | 2...5; (for water 5...100 cm/s; 25 °C; Factory setting)      |
| Temperature monitoring                          |              |                                                              |
| Switch point accuracy                           | [K]          | ± 3 (v > 5cm/s); (Liquids)                                   |
| Resolution                                      | [K]          | 1                                                            |
| Hysteresis                                      | [K]          | 2                                                            |
| Repeatability                                   | [K]          | 2                                                            |
| Response times                                  |              |                                                              |
| Response time                                   | [s]          | 1...10                                                       |
| Liquids                                         |              |                                                              |
| Response time                                   | [s]          | 1...10                                                       |
| Gases                                           |              |                                                              |
| Response time                                   | [s]          | 1...10                                                       |



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|                                |                          |                                                                                   |
|--------------------------------|--------------------------|-----------------------------------------------------------------------------------|
| Temperature monitoring         |                          |                                                                                   |
| Response time                  | [s]                      | 1...10                                                                            |
| Software / programming         |                          |                                                                                   |
| Adjustment of the switch point |                          | pushbutton                                                                        |
| Interfaces                     |                          |                                                                                   |
| Communication interface        |                          | IO-Link                                                                           |
| Transmission type              |                          | COM2 (38,4 kBaud)                                                                 |
| IO-Link revision               |                          | 1.1                                                                               |
| SDCI standard                  |                          | IEC 61131-9                                                                       |
| Profiles                       |                          | Smart Sensor: Process Data Variable; Device Identification                        |
| SIO mode                       |                          | yes                                                                               |
| Required master port type      |                          | A                                                                                 |
| Process data analogue          |                          | 2                                                                                 |
| Process data binary            |                          | 2                                                                                 |
| Min. process cycle time        | [ms]                     | 3                                                                                 |
| Supported DeviceIDs            | <b>Type of operation</b> | <b>DeviceID</b>                                                                   |
|                                | default                  | 53                                                                                |
| Operating conditions           |                          |                                                                                   |
| Ambient temperature            | [°C]                     | -25...80                                                                          |
| Storage temperature            | [°C]                     | -25...100                                                                         |
| Protection                     |                          | IP 65; IP 67                                                                      |
| Tests / approvals              |                          |                                                                                   |
| EMC                            | DIN EN 60947-5-9         |                                                                                   |
| Shock resistance               | DIN IEC 60068-2-27       | 50 g (11 ms)                                                                      |
| Vibration resistance           | DIN EN 60068-2-6         | 20 g (55...2000 Hz)                                                               |
| MTTF                           | [years]                  | 277                                                                               |
| Mechanical data                |                          |                                                                                   |
| Weight                         | [g]                      | 231.5                                                                             |
| Dimensions                     | [mm]                     | M18 x 1.5                                                                         |
| Thread designation             |                          | M18 x 1.5                                                                         |
| Materials                      |                          | stainless steel (316L/1.4404); stainless steel (301/1.4310); PC; PBT-GF20; EPDM/X |
| Materials (wetted parts)       |                          | stainless steel (316L/1.4404); O-ring: FKM 80 Shore A                             |
| Process connection             |                          | M18 x 1,5 internal thread                                                         |
| Displays / operating elements  |                          |                                                                                   |
| Display                        | function                 | 10 x LED, three-colour                                                            |
| Remarks                        |                          |                                                                                   |
| Pack quantity                  |                          | 1 pcs.                                                                            |

## Flow monitor

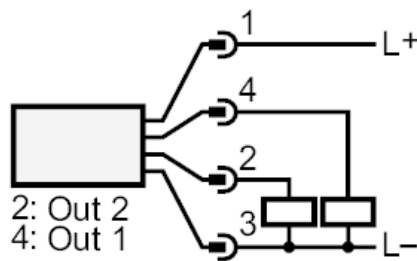
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### Electrical connection

Connector: 1 x M12; coding: A



### Connection



Pin 2: OUT 2 = Temperature monitoring  
 Pin 4: OUT 1 = Flow monitoring  
 Pin 4: IO-Link