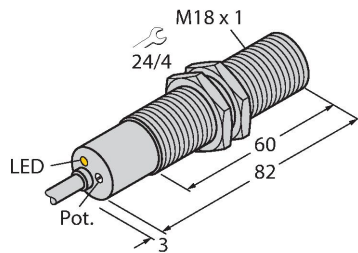


# FCS-M18-AP8X

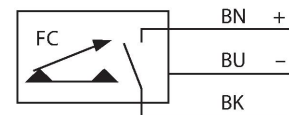
## Flow Monitoring – Immersion Sensor with Integrated Processor



### Features

- Flow sensor for gaseous media
- Calorimetric principle
- Adjustment via potentiometer
- Status display via 2-color LED
- Chrome-plated brass sensor
- 3-wire DC, 19.2...28.8 VDC
- NO contact, PNP output
- Cable device

### Wiring diagram



### Functional principle

The function of immersion flow sensors is based on the thermodynamic principle. The sensor is heated up by a few degrees Celsius compared to the flow medium. If the medium flows past the sensor, the heat generated in the sensor is dissipated. The resulting temperature is measured and compared with the temperature of the medium. The flow condition of each medium can be derived from the temperature difference obtained. Thus, TURCK flow sensors reliably and wear-free monitor the flow of liquid or gaseous media.

### Technical data

|                             |                                           |
|-----------------------------|-------------------------------------------|
| ID                          | 6870704                                   |
| Type                        | FCS-M18-AP8X                              |
| Mounting conditions         | Immersion sensor                          |
| Air Operating Range         | 0.5...15 m/s                              |
| Switch-on time              | typ. 2 s (1...20 s)                       |
| Switch-off time             | typ. 2 s (1...20 s)                       |
| Temperature gradient        | ≤ 200 K/min                               |
| Medium temperature          | -20...+70 °C                              |
| Ambient temperature         | 0...+60 °C                                |
| <b>Electrical data</b>      |                                           |
| Operating voltage           | 19.2...28.8 VDC                           |
| Current consumption         | ≤ 70 mA                                   |
| Output function             | PNP, NO contact                           |
| Rated operational current   | 0.4 A                                     |
| Short-circuit protection    | yes                                       |
| Reverse polarity protection | yes                                       |
| Protection class            | IP67                                      |
| MTTF                        | 637 years acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Mechanical data</b>      |                                           |
| Design                      | Immersion                                 |
| Housing material            | Metal, CuZn                               |
| Sensor material             | Brass, brass, nickel-plated               |
| Electrical connection       | Cable                                     |
| Cable length                | 2 m                                       |
| Core cross-section          | 3 x 0.5 mm <sup>2</sup>                   |

## Technical data

|                        |                        |
|------------------------|------------------------|
| Process connection     | M18 × 1                |
| Switching state        | 2-color LED, Red/green |
| Tests/approvals        |                        |
| Approvals              | cULus                  |
| UL registration number | E210608                |