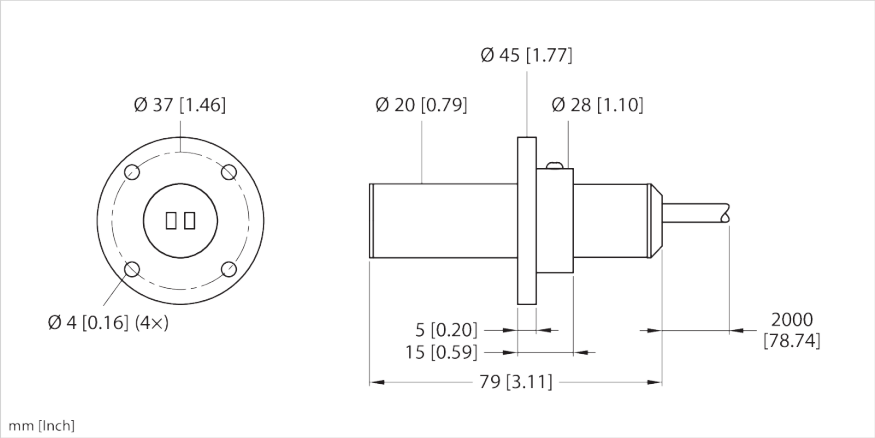
FCS-K20-IOL

Flow monitoring sensor for air flow
With integrated processing unit
Calorimetric measuring principle — immersion design



Typ	FCS-K20-IOL
Ident-No.	100052032

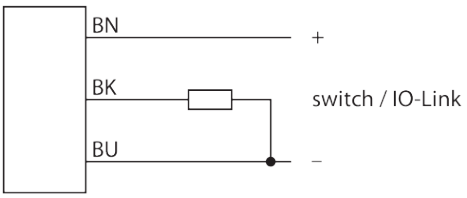
Technical data

General data	
Measuring principle	Calorimetric
Application area	
Application area	Standard
Medium temperature	-20…+70 °C
Medium	gases
Detection area/measuring range	
Air Operating Range	0.5...15 m/s
Flow	
Temperature gradient	≤200 K/min
Power supply	
Operating voltage U_B	18...30 VDC
Electrical data	
Output function	NO/NC (NO pre-set), PNP
Short-circuit protection	yes
Wire break/reverse polarity protection	yes
Current consumption	≤32 mA

Features

- Sensor for gaseous media
- Calorimetric functionality
- Plastic sensor
- Plastic mounting receptacle included
- DC 3-wire, 24 VDC
- PNP NC/NO contact
- Parametrizable via IO-Link SSP 4.1.2
- Cable device
- 6-color LED red/yellow/green/cyan/purple/ blue

Wiring diagram



Functional principle

The function of our insertion flow sensors is based on the thermodynamic principle. The measuring probe is heated by several °C as against the flow medium. When fluid moves

Technical data

Stand-by time	20…40 s
Interfaces	
Communication protocol	IO-Link
Outputs	
Rated operational current	0,4 A
Switch-off time	Typ. 2 s (2…20 s)
Switch-on time	Typ. 2 s (2…20 s)
Switching current	150 mA
Mechanical data	
Design	Immersion
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Cable
Process connection	PVC flange (included in delivery)
Sensor material	Plastic, PBT-GF30-V0
Mounting conditions	Immersion sensor
Cable	
Cable length	2 m
Core cross-section	3 x 0,34 mm²
Environmental conditions	
Ambient temperature	-20...+70 °C
Protection class	IP67
Displays/controls	
Switching state	LED

along the probe, the heat generated in the probe is dissipated. The resulting temperature is measured and compared to the medium temperature. The flow status of every medium can be derived from the evaluated temperature difference. This is the method that TURCK's wear-free flow sensors reliably monitor the flow of gaseous media.