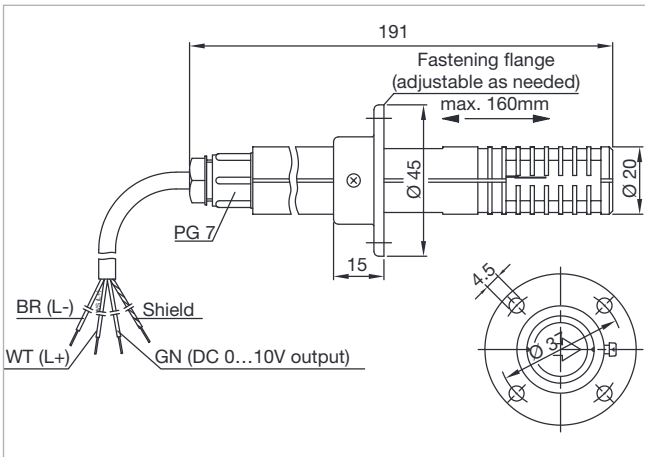


# INT510<sup>®</sup> Air flow sensor

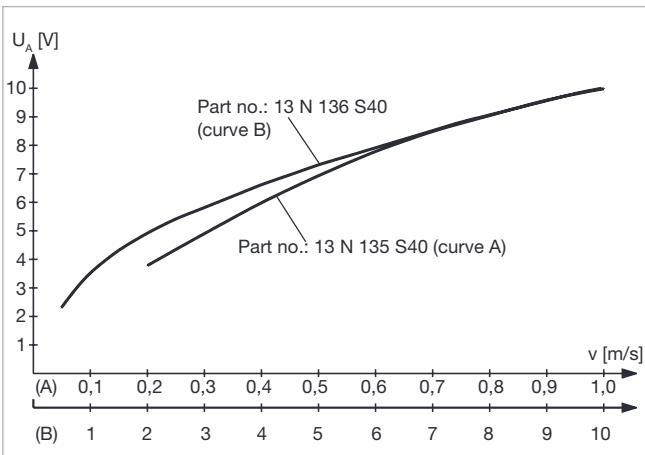
## Monitoring range 0.2 ... 1m/s or 0.2 ... 10m/s



INT510 Air flow sensor



Wiring diagram and dimensions in mm



Characteristics curves


### Application

The KRIWAN air flow sensor INT510 registers the air flow speed and outputs an analogue,

temperature-compensated DC 0...10V signal for further processing.

### Functional description

The KRIWAN Air flow sensor INT510 functions according to the calorimetric measuring principle and registers air flow speeds of 0.2 ... 1m/s or 0.2...10m/s. An analogue voltage of DC 0...10V, based on L-, is available at the output. This signal is suited for processing in limit value relays, controllers, display instruments and in DDC systems.

 Short-term voltage interruptions or breaks influence the evaluation. Due to the calorimetric principle a self-heating occurs and thereby a slight thermal effect. A signal processing is therefore recommended only for air flow speeds of more than 0.2m/s.

### Installation note

To avoid value falsifications, the following points should be to be observed when selecting the installation location:

- If possible, install the flow sensor in the laminar area.
- Do not install directly after bends (distance about 3 x bend radius).
- Insert flow sensor into the middle of the duct if possible (distance about 1/3 duct diameter from the wall).
- Do not install flow sensor directly after heat exchanger (observe the permitted ambient temperature).

- For cable extensions, use only shielded cables and earth only in switching cabinet end.
- Soil deposits of all kinds, in particular wetting by water, need to be avoided by suitable filter measures.
- The registering of the air flow speed depends on the mounting position, marking and the sensor pipe.

### Technical specifications

Electrical connection	DC 24V ±20%
Permitted ambient temperature	-5°C ...+60°C
Max. current consumption	25mA
Sensing range	0.2...1m/s (curve A) 0.2...10m/s (curve B)
Output voltage	DC 0...10V, limited to 10.5V
Minimal load resistor	10kΩ
Accuracy ( $\vartheta_u$ 5...45°C and 1013hPa) - for sensing range 0.2...1m/s - for sensing range 0.2...10m/s	±(0.03m/s +5% from the MW) ±(0.3m/s +5% from the MW)
Max. permitted air flow speed	35m/s
Settling time - after applying the supply voltage. - at a temperature jump of 10K ( $v_L = 1m/s$ )	<20s 3min
Mounting position of the sensor	Arrow points in direction of flow
Housing	PA6 GF30
Connection	Connection cable 2.5m LiYCY 3x0.25mm <sup>2</sup>
Protection class acc. to EN 60529	IP20
Weight	About 150g
Dimensions	Refer to wiring diagram and dimension

### Order data

INT510 Air flow sensor	
Sensing range 0.2...1m/s	<b>13 N 135 S40</b>
Sensing range 0.2...10m/s	<b>13 N 136 S40</b>

Technical changes reserved