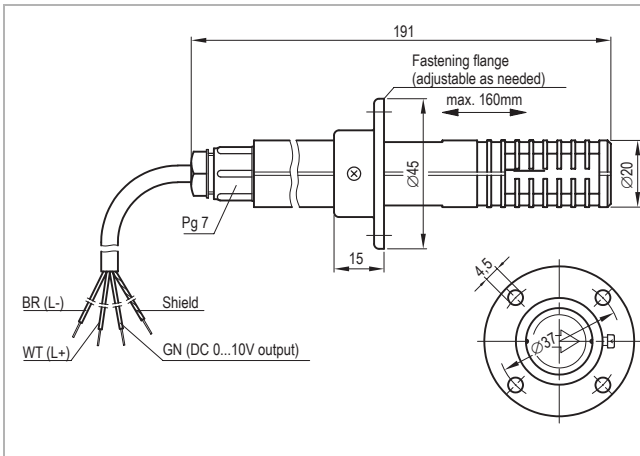


INT512® Linear air flow sensor

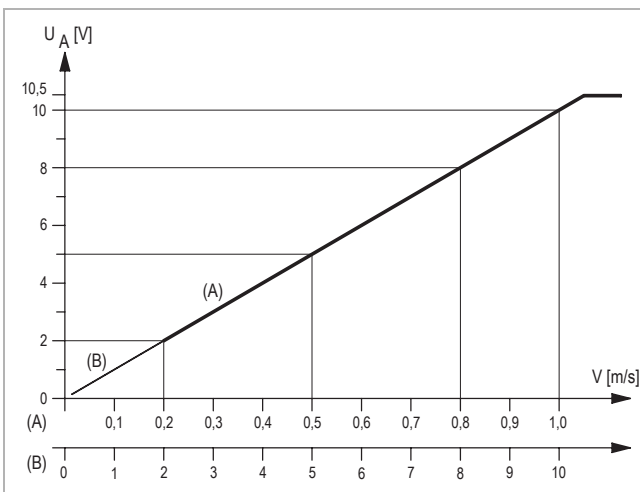
Monitoring range 0.2...1m/s or 0.2...10m/s



INT512 Linear air flow sensor



Wiring diagram and dimensions in mm



Characteristics curves

Application

The KRIWAN linear air flow sensor INT512 registers the air flow speed and outputs an analogue, temperature-compensated and linear DC 0...10V signal for further processing.

Functional description

The KRIWAN linear air flow sensor INT512 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 linear 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 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...+60°C
Max. current consumption	25mA
Sensing range	0.2...1m/s (A) resp. 0.2...10m/s (B)
Output voltage	DC 0...10V, limited to 10.5V
Minimal load resistor	10kΩ
Accuracy (θ 5...45°C and 1013hPa)	
- for sensing range 0.2...1m/s	±(0.03m/s +5% from the MW)
- for sensing range 0.2...10m/s	±(0.3m/s +5% from the MW)
Max. permitted air flow speed	35m/s
Settling time	
- after applying the supply voltage	<20s
- at a temperature jump of 10K ($v_L=1$ m/s)	3min
Mounting position of the sensor	Arrow points in direction of flow
Housing material	PA6 GF30
Connection	Connection cable 2.5m LiYCY 3x0.25mm ²
Protection class acc. to EN 60529	IP20
Weight	About 150g
Dimensions [mm]	Refer to wiring diagram and dimensions

Order data

INT512 Linear air flow sensor	
Sensing range 0.2...1m/s	13 N 137 S40
Sensing range 0.2...10m/s	13 N 138 S40