

# INT10<sup>®</sup> Anemometer

INT10<sup>®</sup>

INT10 with mast mounting



INT10 with central mounting



INT10 K pendulum version

## Application

KRIWAN anemometers are used for the demanding recording of wind speed, e.g. for monitoring crane installations, ski lifts and cable railways, in building technology for building protection, in hydrology and as a weather station component for the building and greenhouse control.

## Functional description

The KRIWAN INT10 anemometer records the current wind speed and converts it into a linear output signal without contact. The sensor is storm-proof and weather-proof. The autonomously controlled heater (refer to order data) enables application at temperatures down to  $-40^{\circ}\text{C}$ . The evaluation is then carried out separately with a measuring device, a display instrument or in the connected control and monitoring system, e.g. in building management. Different construction types make a quite universal implementation in existing applications possible. The following features characterise this KRIWAN anemometer:

- Robust and reliable industrial design
- Low starting torques at high load capacity
- Outstanding precision
- Wear-free recording of measurement data
- Customary output signals available
- Optimised power requirement through electronic heater control
- Simple installation
- Extended temperature range
- Integrated overvoltage protection
- Impact and vibration-resistant
- UL / CSA - approval (types on request)
- Maintenance free



The unit must be connected by trained electrical personnel. All valid european and national standards for connecting electrical equipment must be observed. To avoid any consequential damage or operational failure, through direct or indirect excitation in the event of lightning strikes, we recommend that a separate lightning protection device be fitted by the customer.

## Construction types

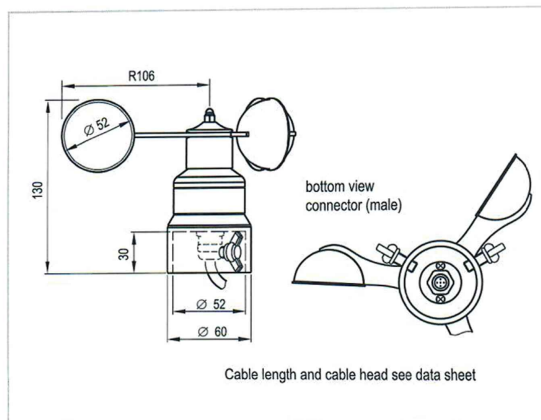
KRIWAN anemometers are available in different construction types:

- Mast mounting, for masts up to  $\varnothing 50\text{mm}$
- Central mounting
- Pendulum version with lateral flange mount
- Further customised construction types available upon request

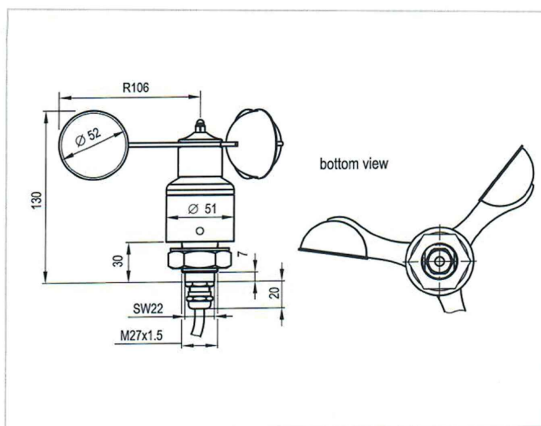
Technical changes reserved

# INT10<sup>®</sup> Anemometer

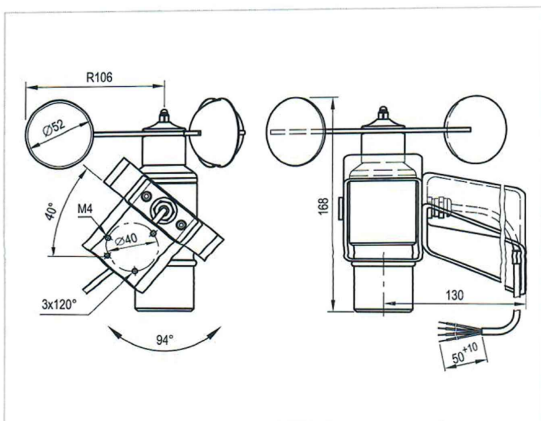
INT10<sup>®</sup>



INT10 with mast mounting  
Dimensions in mm



INT10 with central mounting  
Dimensions in mm



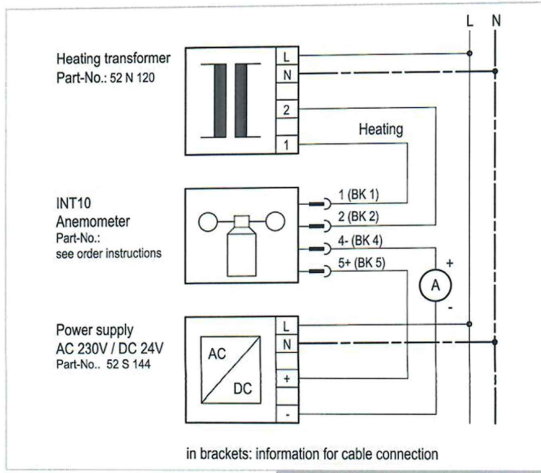
INT10 K pendulum version  
Dimensions in mm

## Technical specifications (General)

Measuring principle	Noncontact, magnetic scanner
Measuring range	0...40m/s 0...50m/s 0...75m/s, see order data
Accuracy:	
- Mast mounting / Central mounting	±0.5m/s (V ≤ 50m/s) ±3% FS (V > 50m/s)
- Pendulum version for with flange mounting	± (10% of measured value + 0.5m/s) at 0...30m/s
Resolution	< 0.1m/s
Start-up speed	< 0.4m/s
Signal availability	max. 2.5s (from voltage-free state)
Permitted ambient temperature	-40...+70°C Heating not connected: snow and ice free sensor required.
Permissible rel. humidity	0...100% r.h.
Strength	For wind speed of 80m/s (max. 30min)
For types with cable:	
Cable material	Polyurethane sleeve insulation Thermoplastic elastomer lead insulation
For types with built in heater:	
Heating	Automatic heater control
Supply	AC/DC 24...30V ±20%, max. 18VA
Protection class acc. to EN 60529	IP64 for conventional sensor mounting
Mounting	
- Mast mounting	Steel tube mast max. Ø <sub>exterior</sub> 50mm min. Ø <sub>interior</sub> 37mm
- Central mounting	M27
- Pendulum version	Lateral flange mount, refer to dimensions
Dimensions	Refer to dimensions
Housing material	
- INT10	Aluminium
- INT10 K	Aluminium/steel
- Cup anemometer	Aluminium
Corrosion resistance	Seawater-resistant composition
Approval	UL File No. N.N.

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# INT10® Anemometer



Wiring diagram current output

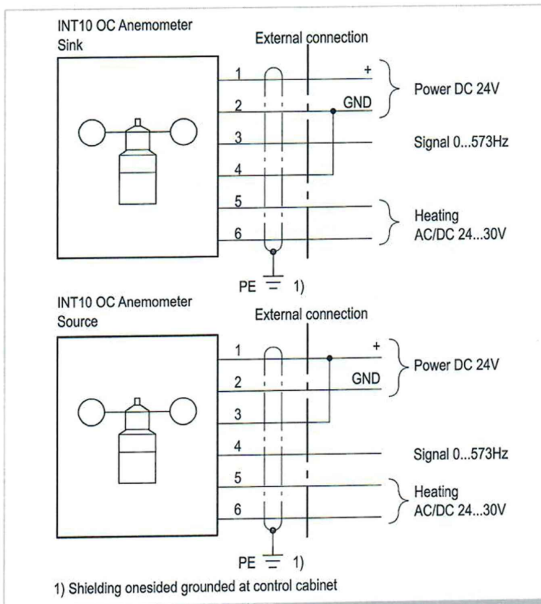
## Technical specifications (details)

### 4...20mA standard signal output

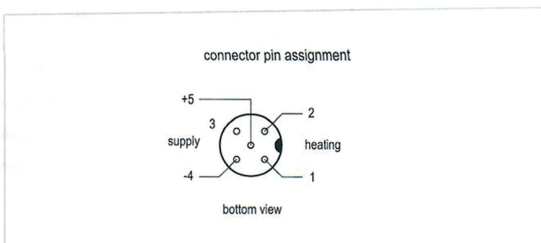
Supply	DC 24V -25...+50%, reverse-polarity protection
Signal output	DC 4...20mA, limited to 20.5mA
Load resistor = Cable + load resistor	$R_{Load} \leq (U_{min.} - 9) / 0.02 (\Omega)$ $U_{min.} = \text{min. supply voltage}$
Connection type	5-pin plug (M12) or cable 5x0.75mm <sup>2</sup> Length refer to dimensions or on request

### Open collector frequency output

Supply	DC 24V ±50%, reverse-polarity protection
Signal output	Open-collector (Sink or Source) Frequency range, see order data
Max. load of the signal output	15mA; max. DC 36V
Connection type	Cable 6x0.5mm <sup>2</sup> , screened Length refer to dimensions or on request



Wiring diagram, open collector

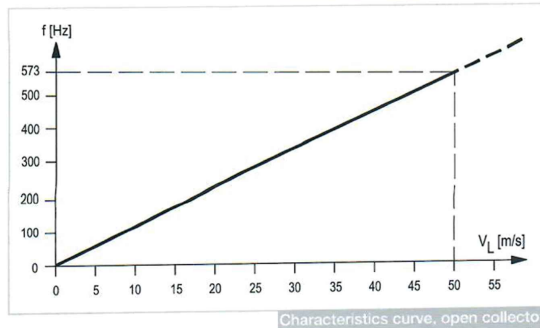
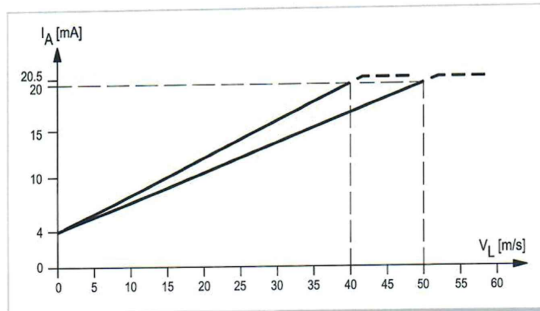


Pin allotment (mast version)

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## Accessories

### Power supply

Supply	AC 50/60Hz 230V ±10% 5VA
Output voltage	DC 24V ±20%, 1.2W
Protection class acc. to EN 60529	With terminal cover:IP20 Without terminal cover:IP00

Mounting	To snap open to 35mm standard rail as under EN 50022 or screw mounting
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Dimensions [mm]	87x40x110 high
Weight	About 400g
<b>Part number</b>	<b>52 S 144</b>

### Heating transformer (for 2 wind sensors)

Supply	AC 50Hz 230V ±10% 50VA
Output voltage	AC 50Hz 30V, 40VA
Protection class acc. to EN 60529	IP54
Mounting	Screw mounted
Dimensions [mm]	125x125x75
Weight	About 1.3kg
<b>Part number</b>	<b>52 N 120</b>

### Mast crossbeam

Mast crossbeam for weather station incl. lightning rod	<b>02 N 280 S21</b>
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## Order data

### Anemometer with mast mounting

INT10 Anemometer 0...40m/s; 4...20mA; 5-pin plug; heating; UL weight about 400g	<b>13 N 219 S30</b>
INT10 Anemometer 0...40m/s; 4...20mA; 3m connection cable; heating; UL weight about 600g	<b>13 N 219 S31</b>
INT10 Anemometer 0...50m/s; 4...20mA; 5-pin plug; heating; UL weight about 400g	<b>13 N 219 S53</b>
INT10 Anemometer 0...40m/s; 4...20mA; 20m connection cable; heating; UL weight about 1.8kg	<b>13 N 219 S42</b>
INT10 Anemometer 0...50m/s; 4...20mA; 10m connection cable; heating; UL weight about 1.1kg	<b>13 N 219 S45</b>
INT10 M Anemometer 0...75m/s; 4...20mA; 5-pin plug; heating; UL weight about 400g	<b>13 N 290 S22</b>

### Anemometer with central mounting

INT10 Anemometer 0...40m/s; 4...20mA; 3m connection cable; heating; UL weight about 620g	<b>13 N 219 S36</b>
INT10 Anemometer 0...50m/s; 4...20mA; 3m connection cable; heating; UL weight about 620g	<b>13 N 219 S43</b>
INT10 M Anemometer 0...75m/s; 4...20mA; 3m connection cable; heating; UL weight about 620g	<b>13 N 290 S21</b>
INT10 OC Anemometer 0...50m/s; 0...573Hz; 5m connection cable; heating weight about 750g	<b>13 N 293</b>
INT10 OC Anemometer 0...50m/s; 0...573Hz; 12m connection cable weight about 1.4kg	<b>13 N 293 S25</b>

### Anemometer with pendulum and flange mounting

INT10 K Anemometer 0...40m/s; 4...20mA; pendulum 3m weight about 1.7kg	<b>13 N 292 S22</b>
INT10 K Anemometer 0...40m/s; 4...20mA; pendulum 20m; UL weight about 2.3kg	<b>13 N 292 S25</b>

Further models on demand.

## Spare parts

Vane assembly	<b>HO020012</b>
Hexagon nut M27x1.5	<b>HM27002400</b>
Serrated washer	<b>HX28014600</b>
VA-wing screws, M8x16mm	<b>HS08016600</b>
Cable socket (M12) 5-pin	<b>FA04106</b>

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