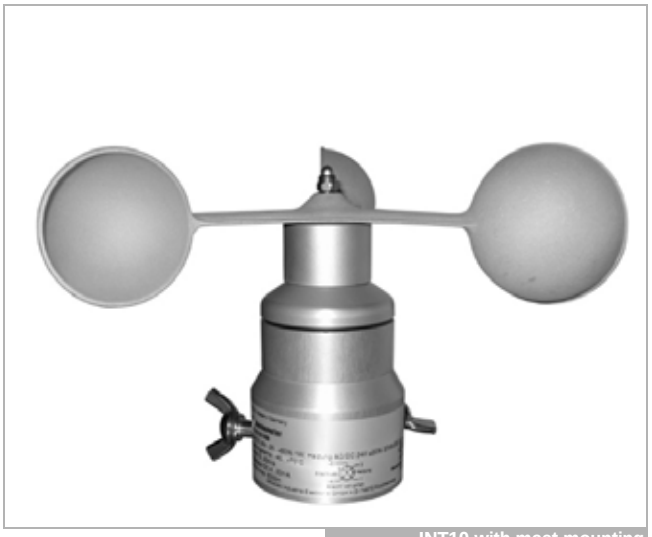
INT10® Anemometer

KRIWAN

INT10®



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
- Wind power generators for energy-optimisation
- In building technology for building protection
- In hydrology and meteorology
- 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°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 Ø 50mm
- Central mounting
- Pendulum version with lateral flange mount
- Further customised construction types available upon request

Product group N

Edition: 710.00316.3

Technical changes reserved

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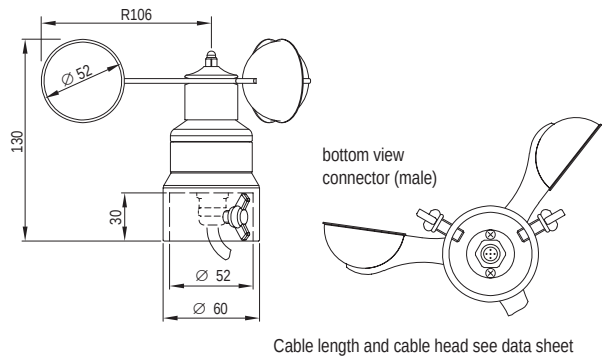
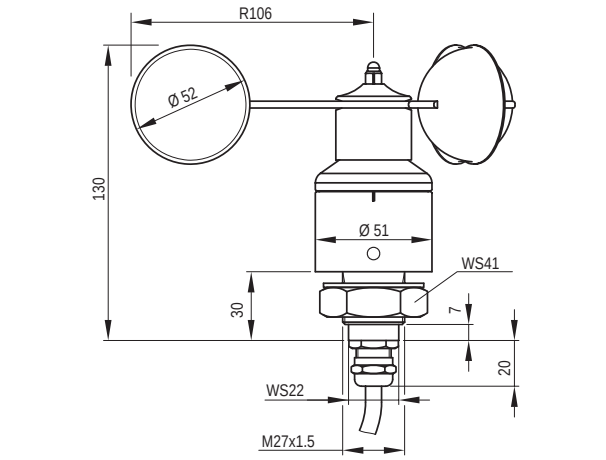
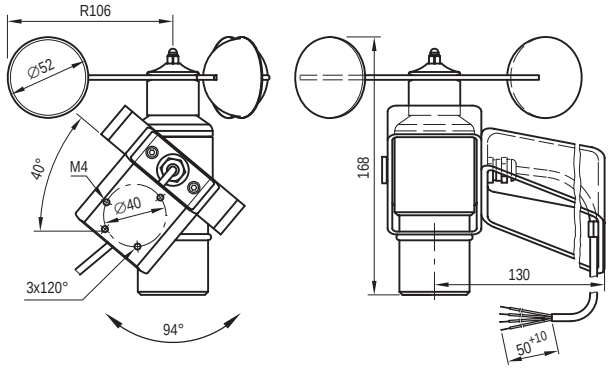


Cable length and cable head see data sheet

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 (see order data)	0-40m/s 0-50m/s 0-75m/s
Accuracy - Mast mounting / Central mounting - Pendulum version for with flange mounting	 ±0.5m/s (VL ≤ 50m/s) ±3% FS (V > 50m/s) ± (10% of measured value + 0.5m/s) at 0-30m/s
Resolution	<0.1m/s
Start-up speed	<0.4m/s (υ_u=20°C)
Signal availability	max. 2.5s (from voltage-free state)
For types with cable:	Polyurethane sleeve insulation Thermoplastic elastomer lead insulation
Permitted ambient temperature	-40...+70°C Heating not connected: snow and ice free sensor required.
Permitted rel. humidity	0-100% r.h.
Strength	For wind speed of 80m/s (max. 30min)
For types with built in heater:	Automatic heating controller AC/DC 24V ±20%, max. 20VA SELV
Protection class acc. to EN 60529	IP64 for intended use sensor mounting
Mounting - Mast mounting - Central mounting - Pendulum version	 Steel tube mast max. $\varnothing_{exterior}$ 50mm min. $\varnothing_{interior}$ 37mm M27 Lateral flange mount, refer to dimensions
Dimensions	Refer to dimensions in mm
Housing material - INT10 - INT10 K - Cup anemometer	 Aluminium Aluminium/steel Aluminium
Corrosion resistance	Seawater-resistant alloy
Check base	EN 61000-6-2 EN 61000-6-3 EN 61010-1
Approval	UL File No. N.N.

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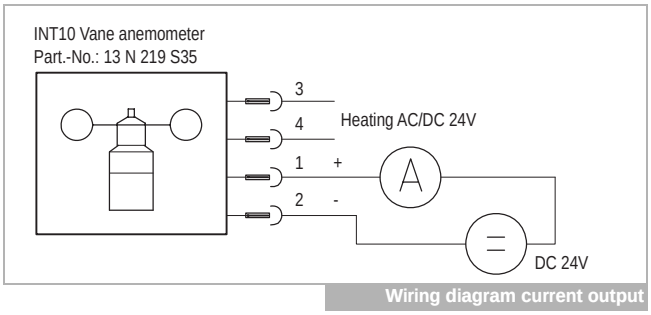
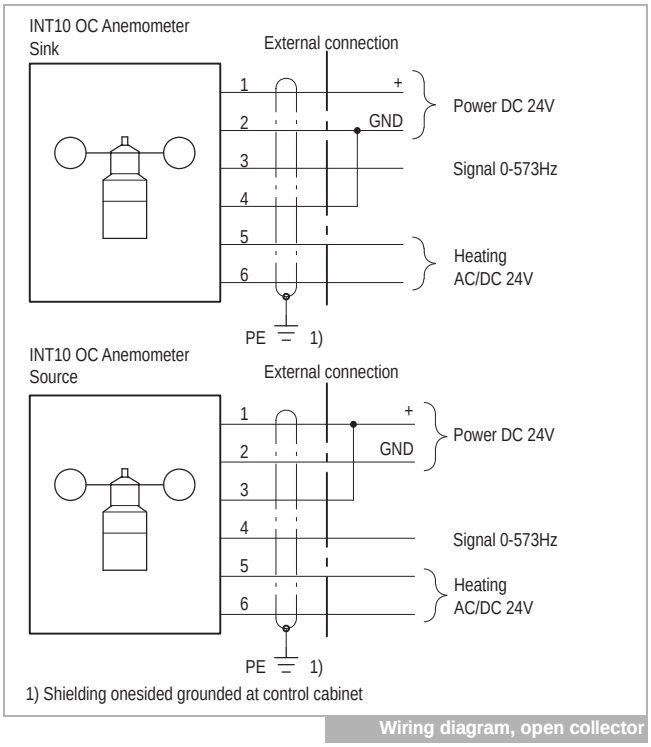
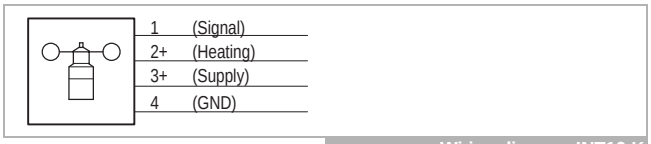


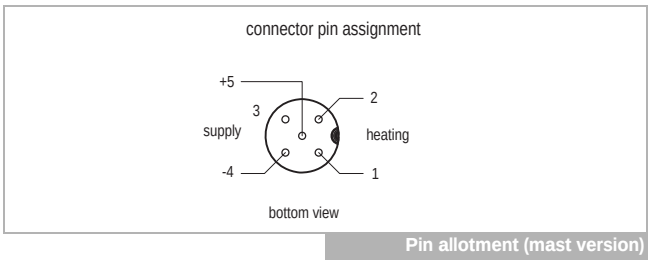
Wiring diagram current output



Wiring diagram, open collector



Wiring diagram INT10 K



Pin allotment (mast version)

Technical specifications (details)

4-20mA standard signal output

Supply	DC 24V -25...+50%, max. 10mA reverse-polarity protection
Signal output	DC 4-20mA, limited to 20.5mA
Load resistor = cable + load resistor	$R_{Load} \leq (U_{min.}-9)/0.02\ (\Omega)$ $U_{min.}$ = min. supply voltage
Connection type	Plug (M12) or cable 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 6x0.5mm², screened Length refer to dimensions or on request

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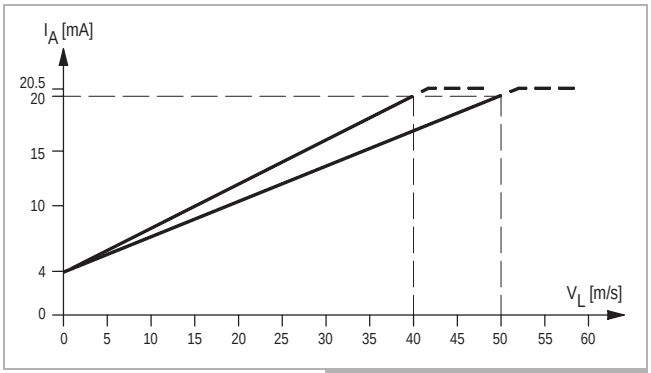
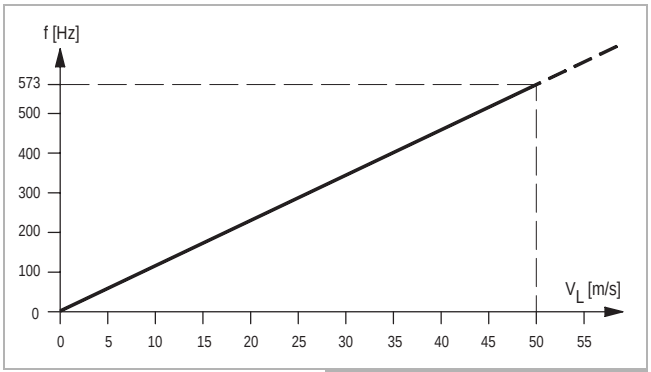


Characteristic line current output



Characteristic line, open collector

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 60715 or screw mounting
Dimensions [mm]	87x40x110 (LxWxH)
Weight	Approx. 400g
Part number	**52 S 144**

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 (LxWxH)
Weight	About 1.3kg
Part number	**52 N 120**

Mast crossbeam

Mast crossbeam for weather station incl. lightning rod	**02 N 280 S21**

Order data

Anemometer with mast mounting

INT10 Anemometer 0-40m/s; 4-20mA; 5-pin plug; heating; UL weight about 400g	**13 N 219 S30**
INT10 Anemometer 0-40m/s; 4-20mA; 3m connection cable; heating; UL weight about 600g	**13 N 219 S31**
INT10 Anemometer 0-50m/s; 4-20mA; 5-pin plug; heating; UL weight about 400g	**13 N 219 S34**
INT10 Anemometer 0-40m/s; 4-20mA; 20m connection cable; heating; UL weight about 1.8kg	**13 N 219 S42**
INT10 Anemometer 0-50m/s; 4-20mA; 10m connection cable; heating; UL weight about 1.1kg	**13 N 219 S45**
INT10 M Anemometer 0-75m/s; 4-20mA; 5-pin plug; heating; UL weight about 400g	**13 N 290**

Anemometer with central mounting

INT10 Anemometer 0-40m/s; 4-20mA; 3m connection cable; heating; UL weight about 620g	**13 N 219 S36**
INT10 Anemometer 0-50m/s; 4-20mA; 20m connection cable; heating; UL weight about 1.7kg	**13 N 219 S50**
INT10 Anemometer 0-50m/s; 4-20mA; 15m connection cable; heating; UL weight about 1.4kg	**13 N 219 S44**
INT10 M Anemometer 0-75m/s; 4-20mA; 3m connection cable; heating; UL weight about 620g	**13 N 290 S21**
INT10 OC Anemometer 0-50m/s; 0-573Hz; 5m connection cable; heating weight about 750g	**13 N 293**
INT10 OC Anemometer 0-50m/s; 0-573Hz; 12m connection cable weight about 1.4kg	**13 N 293 S21**

Anemometer with pendulum and flange mounting

INT10 K Anemometer 0-40m/s; 4-20mA; pendulum, 3m cable; heating; UL weight about 1.7kg	**13 N 292 S22**
INT10 K Anemometer 0-40m/s; 4-20mA; pendulum; 20m cable; UL weight about 2.3kg	**13 N 292 S25**

Further models on demand.

Spare parts

Spare parts package cup anemometer (cup anemometer, cap nut, serrated washer)	**02 Z 160**
Hexagon nut M27x1.5	**HM27002400**
Serrated washer J28	**HX28014600**
VA-wing screws, M8x16mm	**HS08016600**
Clamp connector female (M12) 5-pin	**FA04106**

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