

# INT10<sup>®</sup> Anemometer

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INT10

## Application

KRIWAN anemometers are used in challenging wind speed measurement applications, e.g.

- For monitoring cranes, ski lifts and cable cars
- For energy optimisation in wind farms
- For blinds protection in building technology
- In hydrology and meteorology
- As weather station components for building and greenhouse control

## Functional description

The KRIWAN anemometer measures 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 heating enables use at temperatures as low as -40°C.

The evaluation is then conducted separately using a measuring device, a display instrument, or the connected control and monitoring system.

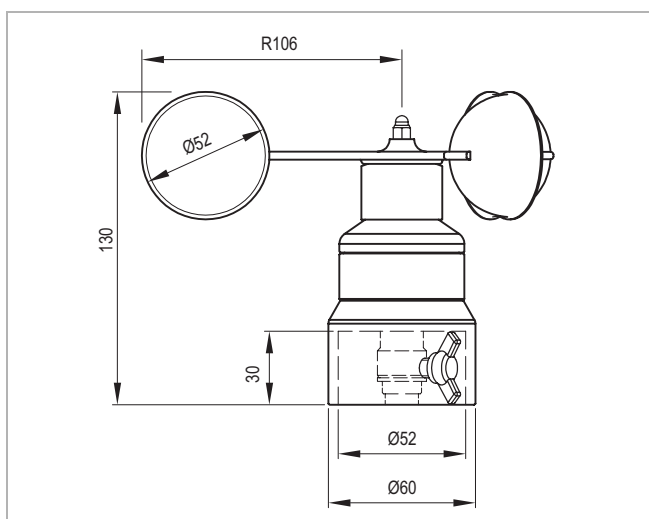
The following features characterise this KRIWAN anemometer:

- Sturdy and reliable industrial design
- Low starting torque, high strength
- High accuracy
- Wear-free measurement
- Optimised power requirement through electronically regulated heating
- Easy installation
- Extended temperature range
- Integrated overvoltage protection
- Impact and shake resistant
- eUR<sub>US</sub> - certified (if available or applied for)
- Maintenance-free

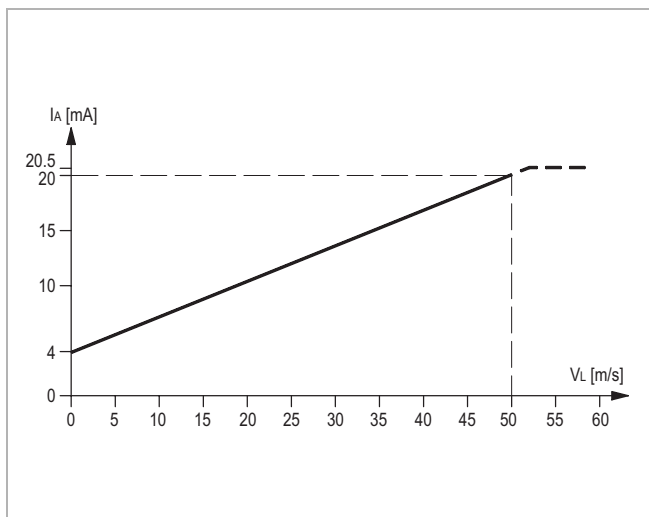


The unit must be connected by trained electrical personnel. The applicable European and national standards for connecting electrical equipment must be observed. We recommend that separate on-site lightning protection be installed to prevent consequential damage or operational failures caused by direct or indirect exposure to lightning strikes.

See back side for further specifications



Dimensions in mm

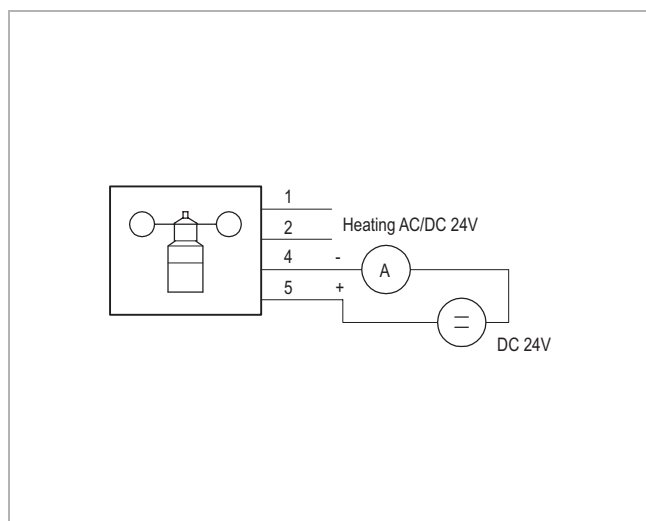


Characteristic line

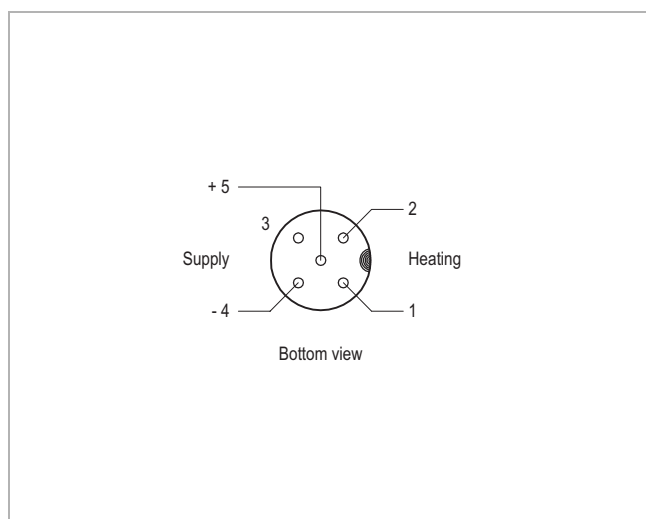
Technical changes reserved

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Wiring diagram



Pin assignment

## Spare parts

|                                                                               |                   |
|-------------------------------------------------------------------------------|-------------------|
| Spare parts package cup anemometer (cup anemometer, cap nut, serrated washer) | <b>02 Z 160</b>   |
| VA-wing screws, M8x16mm                                                       | <b>HS08016600</b> |
| Self-locking cap nut M4                                                       | <b>HM04009400</b> |
| Serrated washer J4.3                                                          | <b>HX04305600</b> |
| Cable socket (M12) 5-pin                                                      | <b>FA04106</b>    |

## Technical specifications

|                                                |                                                                                         |
|------------------------------------------------|-----------------------------------------------------------------------------------------|
| Measuring principle                            | Contact-free magnetic scanning system                                                   |
| Measuring range                                | 0-50m/s                                                                                 |
| Accuracy                                       | ±0.5m/s                                                                                 |
| Resolution                                     | <0.1m/s                                                                                 |
| Start-up speed                                 | <0.4m/s (θ <sub>u</sub> =20°C)                                                          |
| Supply                                         | DC 24V -25...+50%<br>Max. 21mA<br>Reverse polarity protection                           |
| Signal output                                  | DC 4-20mA<br>Limited to 20.5mA                                                          |
| Signal availability                            | Max. 2.5s<br>(from voltage-free state)                                                  |
| Load resistance<br>= line + load resistor      | $R_{Load} \leq (U_{min} - 9)/0,02 [\Omega]$<br>$U_{min}$ = min. supply voltage          |
| Connection type                                | 5-pin plug (M12)                                                                        |
| - Sensor                                       | 5-pin plug (M12)                                                                        |
| - Recommended connecting cable                 | 4x0.75mm <sup>2</sup>                                                                   |
| Permissible ambient temperature T <sub>A</sub> | -40...+70°C<br>When heating is not connected: Snow and ice-free sensor is prerequisite. |
| Permissible relative humidity                  | 0-100% RH                                                                               |
| Stability                                      | For wind speed of 80m/s (max. 30min)                                                    |
| Heating                                        |                                                                                         |
| - Type                                         | Autonomously controlled heating                                                         |
| - Connection                                   | AC/DC 24V ±20%<br>Max. 20VA SELV                                                        |
| Protection class according to EN 60529         | IP64 if sensor is assembled in the specified manner                                     |
| Mounting                                       | Steel mast<br>Max. Ø <sub>outer</sub> 50 mm<br>Min. Ø <sub>inner</sub> 37 mm            |
| Dimensions                                     | See dimensions in mm                                                                    |
| Housing                                        |                                                                                         |
| - Material                                     | Aluminium                                                                               |
| - Corrosion resistance                         | Anodised                                                                                |
| Cup anemometer                                 |                                                                                         |
| - Material                                     | Aluminium                                                                               |
| - Corrosion resistance                         | Powder-coated                                                                           |
| Weight                                         | Approx. 400 g                                                                           |
| Test basis                                     | EN 61000-6-2, EN 61000-6-3, EN 61010-1                                                  |
| Approval                                       | UL file no. E240032                                                                     |

## Order data

|                                         |                                                        |
|-----------------------------------------|--------------------------------------------------------|
| INT10 Anemometer                        | <b>13 N 219 S34</b>                                    |
| Accessories and application information | see <a href="http://www.kriwan.com">www.kriwan.com</a> |

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