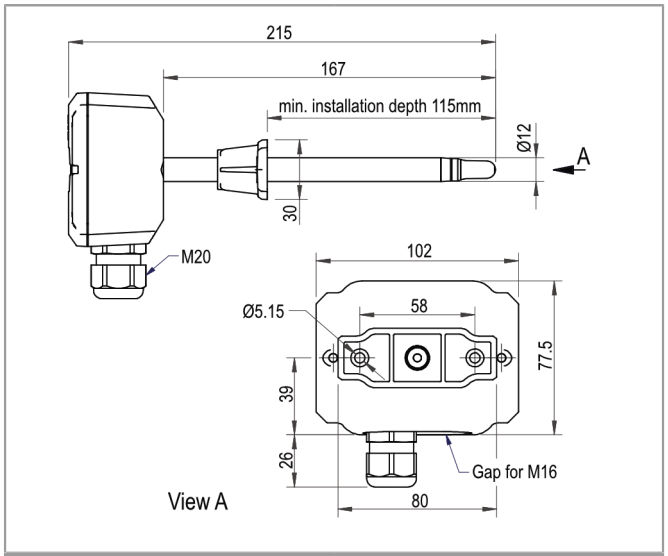
INT®511 Air flow monitor

INT 511 Air flow monitor

Illustration similar. Scope of delivery may deviate.



Maße in mm

Safety instructions

Installation, maintenance, and operation are to be carried out by an electrician. The applicable European and national standards for connecting electrical equipment must be observed.

Connection lines that extend from the connection box have to feature at least a basic insulation.

Short power interruptions or failures influence the evaluation.

A switch marked as a separator switch need to be installed in the supply line near the device (easily accessible).

Due to the calorimetric principle, a self-heating occurs and thereby a slight thermal effect.

Parts of the surface of the sensor can exceed 55 °C during operation.

Application

KRIWAN air flow monitors are used for air flow monitoring in building technology, e.g. for monitoring of:

- Filters
- Ventilators
- Air supply / Exhaust air
- Electric heaters
- Exhaust ducts of canteen kitchens
- Regulating flaps

Functional description

The following features characterize this KRIWAN flow monitor:

- Sturdy and reliable industrial design
- Compact monitoring equipment
- Omnidirectional measurement
- Easy installation
- Adjustable installation depth
- Connection by push-in spring terminals
- Individual limit value setting
- Comparison of the measured value with the limit value
- Integrated temperature compensation
- Adjustable integrated starting transition time
- Output relay (change-over contact) with fleeting N/O contact suppression
- Two-colored status LED for different operational statuses
- Easy cleaning by closed sensor head
- The air flow monitor is equipped with a short circuit and wire break detection of the sensor.
- The sensor of the air flow monitor features a chemical resistance against hydrogen peroxide (tested with liquid H_2O_2).

Using the built-in potentiometer (V_L), the switching point can be set linearly within the monitoring range.

To avoid a fleeting N/O contact, the relay circuit (11-14/12) switches through after about 1 second after a power reset; the operational statuses are indicated by a two-colored status LED.

The adjustable starting transition time (AÜ) starts after applying the supply voltage. During this starting transition time (AÜ) as well as when the flow is > set value, contact 11-14 is closed.

If the flow is less than the set value after the end of the starting transition time, contact 11-12 closes.

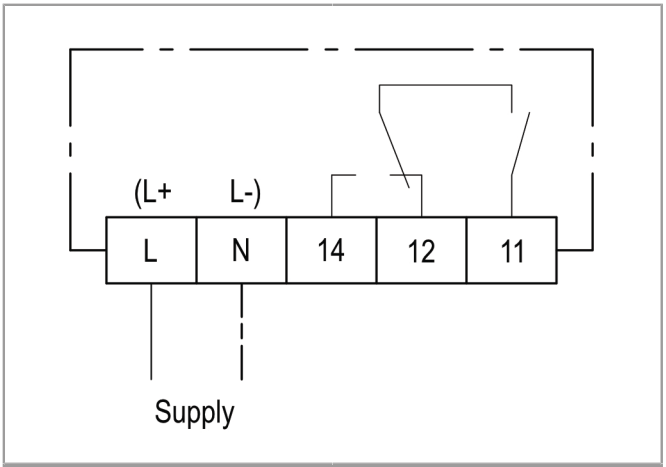
If no supply voltage is applied, then all contacts are open.

Order data

INT 511 Air flow monitor	20 N 842 S021
Further product information	See www.kriwan.com

Replacement parts

Screw fittings M16	**02 Z 842**



Anschluss-Schaltbild

Blink code

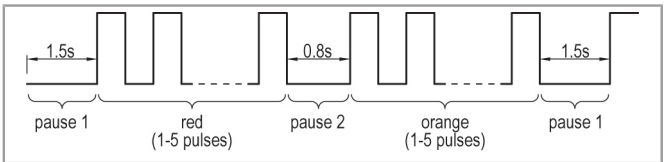
Display of the operational statuses by LED

The display of the operational statuses by the built-in LED allows for a quick and easy status display and troubleshooting if necessary.
This visual display can be in the following states:

Green lit	Measured flow is greater than the set value.
Green blinking	Starting transition time is active.
Red / Orange blinking	See below for description

Overview of blink code

The KRIWAN blink code allows for a quick and easy troubleshooting. It consists of a cyclical red and orange blink sequence. The current error status can be determined from the number of pulsing blinks.



Blink code

1. Blinking sequence (LED red)	2. Blinking sequence (LED orange)	Description
1	1	Air flow monitoring: Switch-off, drop below permissible air flow
1	3	Air flow monitoring: Reset delay after switch-off
3	1	General: Supply voltage too low
3	3	General: Internal error

Technical specifications

Supply voltage	AC/DC 50/60 Hz 24 V ±10 % 2 VA
Permissible ambient temperature	-20…+60 °C
Permissible relative humidity	0-95 % RH, non-condensing
Max. altitude	2000 m
Adjustable limit value in the monitoring range (V_L) Factory setting	0.2-10 m/s Approx. 2.5 m/s
Reset delay after switch-off	2 min
Adjustable starting transition time AÜ Factory setting	1-3 min 2 min
Switch hysteresis – For monitoring range 0.2 m/s - 0.9 m/s – For monitoring range 1.0 m/s - 10.0 m/s	 ± 0.1 m/s ± 0.3 m/s
Settling time τ_{90}	<40 s
Connection type	Push-in spring terminal-s0.2–1.5 mm² (AWG24-AWG16) Cable e.g. 5x0.75 mm² (5xAWG19)
Relay – Contact – Mechanical service life	 AC 240 V 2.5 A C300 Min. AC/DC 24 V 20 mA Approx. 1 million switching cycles
Stability	For flow speeds up to 35 m/s
Protection class according to EN 60529	IP65
Housing material – Sensor – Connection box bottom part – Connection box lid – Flange – Screw fittings	 Aluminum, EP, Cu (gold-plated) PA glass-fiber reinforced PC PA glass-fiber reinforced PA
Type of mounting	Fastening flange on the sensor pipe
Mounting position of the sensor pipe	Independent of the flow direction
Dimensions	See dimensions in mm
Weight	Approx. 265 g
Testing basis	EN 61000-6-2, EN 61000-6-3, EN 61010-1 Overvoltage category II Pollution level 2

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