



- * electronic monitoring unit with 230V AC supply
- * heavy duty switching contact
- * red/green switching status indicator
- * simple to operate

APPLICATION

The Electronic Monitoring Unit acquires frequency signals (usually from flow sensors) and releases a relay (contact open) when the flow is below the adjusted minimum. The electronic unit will be directly plugged onto a suitable sensor or is installed so that it can be rotated (see "DIMENSIONS").

PRINCIPLE

The electronic unit records the rotary movements of a rotor blade or a turbine with an inductive or a Hall sensor (with or without pre-excitation). The speed of the rotor or turbine is usually proportional to the volume flow, and is registered by a microcontroller which controls a relays. The state of the relays is indicated by a red and a green LED. Nearly any possible internal fault of the unit will be detected by the microcontroller and the unit will switch to the safe state (contact open = alarm) even if the microcontroller is defective.

The cable orientation can be aligned by turning the whole upper part of the housing or by changing connections (a small, but useful point!).

OPERATION

There are a green and a red LED on the front of the unit with the following functions:

The green LED is switched on if the actual flow is above the adjusted minimum value (relay is on = contact is closed)

The red LED is switched on if the actual flow is below the adjusted minimum value (relay is released = contact is open)

The red LED is flashing if an internal fault is detected by the microcontroller (relay is released = contact is open)

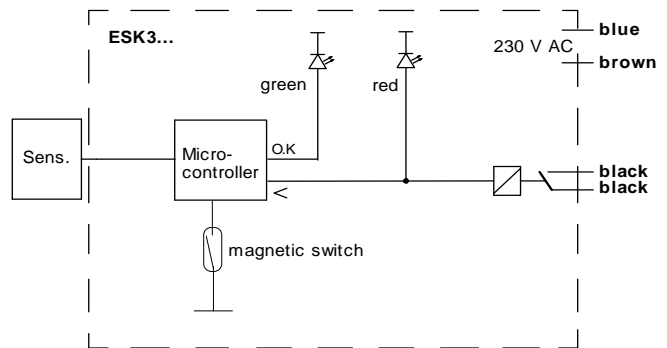
There is a magnetic control area on the front label (magnetic set) which is used to set the adjustable minimum value as follows:

When setting a magnet onto the area the **LEDs are alternately flashing** for a time of 4 sec. Next **both LEDs are switched on** for 2 sec. When the magnet is removed during this time the actual flow will be taken over as minimum value. If the magnet is removed earlier or later no change will take place.

TECHNICAL DATA

operating ranges	see relevant flow sensor
accuracy	
operating pressure	
operating temperature of electronic unit	-25..60°C
supply voltage	230 V AC
current consumption	<4 mA
output	relay contact
switching voltage	cont.: 30 VDC / 250 VAC (cosφ=1) max.: 380VAC / 125VDC
switching current	2A (higher values on request)
switching power	1250VA / 150 W (cosφ=1)
connection	cable oelflex 4x0.5 mm ²
materials	PA66
protection class	IP 64

TERMINAL ASSIGNMENT

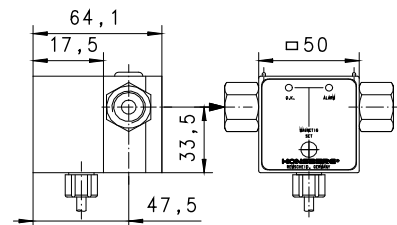


MOUNTING

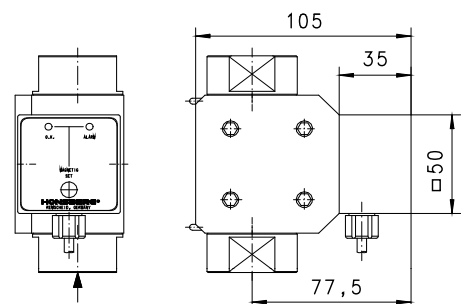
The ESK3 Electronic Unit must be fully plugged onto the Rotoron flow sensor to detect a reliable signal. With the RR.25... you have the possibility of offsetting the converter in 90° steps to give a suitable reading position. With the RR.10... the position should be stated when ordering. The types RT, TT and VHZ provide the best reading position in any installation orientation due to the rotatable electronic unit.

DIMENSIONS

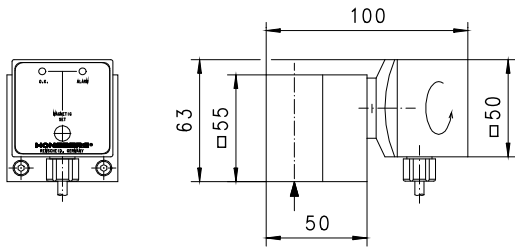
ESK3-RR010



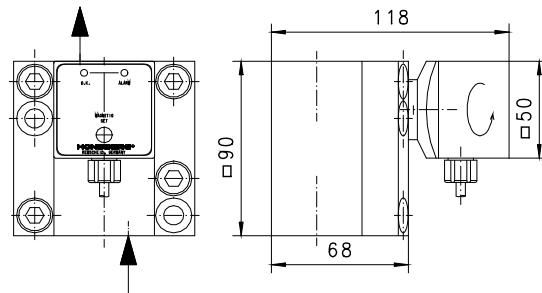
ESK3-RR025



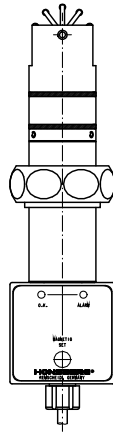
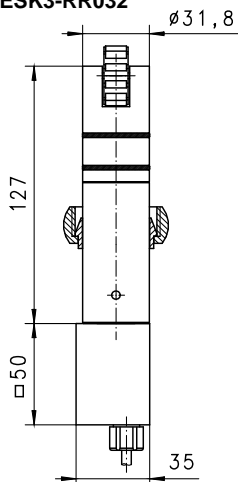
ESK3-VHZ010



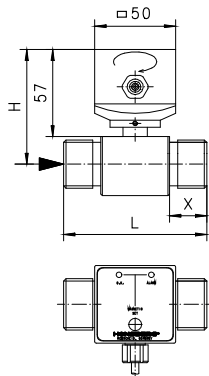
ESK3-VHZ020



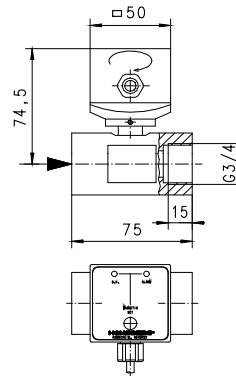
ESK3-RR032



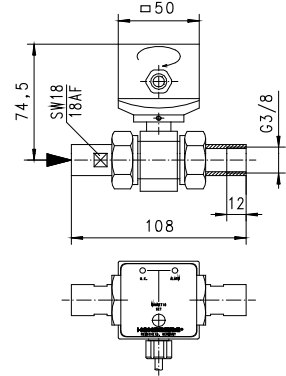
ESK3-RT...



ESK3-RRT...



ESK3-RRT1...



NOMENCLATURE

ESK3-	RR	010	I	S	basic type specification
ESK3-					● Electronic Mounting Unit
	RR				● for flow sensor RR
	VHZ				● for flow sensor VHZ
	RT				● for flow sensor RT
	RRT				● for flow sensor RRT
	RRT1				● for flow sensor RRT1
		010			● for flow sensor, size DN 10
		020			● for flow sensor, size DN 20
		025			● for flow sensor, size DN 25
		032			● for flow sensor, size DN 32 - 150
			I		● inductive sensor
			H		● hall sensor
			E		● hall sensor (pre-excited)
				S	● connection at locking plugs M12x1, 4-pole
				K	○ cable gland with 2 metre PVC cable

IMPORTANT ORDERING INFORMATION

- Please state direction of flow when ordering.
- The flow sensor is ordered, for example for the RR.-010... with ESK3-RR010.

ACCESSORIES

Mounting clamp

BK-	010	basic type specification
	010	● for RR.-010
	025	● for RR.-025



All technical changes reserved

●BASIC Standard ○BASIC Programme option □VARIO Special option ⊕ PLUS Accessories ✗not recommendable