



- * electronic monitoring unit with 18..30 V DC supply
- * two electronic switching outputs
- * adjustment by magnetic switch
- * output state indicated by LEDs

APPLICATION

The Electronic Monitoring Unit acquires frequency signals (usually from flow sensors) and switches the assigned output when it is below the minimum (ALARM1) or above the maximum value (ALARM2). The electronic unit will be directly plugged onto a suitable sensor or is installed rotatable (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 two electronic outputs. The outputs can be connected as npn- or pnp-outputs without any changes. The state of the outputs is indicated by two red and one green LED.

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

The meaning of the LEDs on the front of the unit is as follows:

The green LED is switched on if the actual flow is above the adjusted minimum value and below the maximum value (output voltage=positive supply voltage)

A red LED is switched on if the actual flow is below the adjusted minimum or above the maximum value (voltage of assigned output = 0 V)

Red LEDs are flashing alternately if there is an overload or short circuit at one of the outputs or an internal fault is detected by the microcontroller (output voltage of both outputs = 0 V)

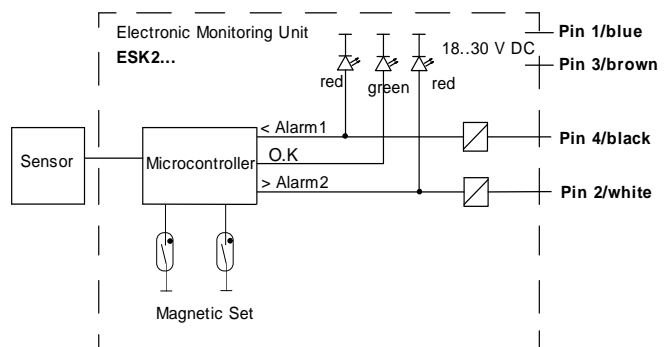
There are two magnetic control area on the front label (magnetic set) which are used to set the adjustable minimum and maximum value as follows:

When setting a magnet onto one of the areas the assigned red LED and the green LED are flashing alternately 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 alarm 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	-20..80 °C
operating temperature of electronic unit	max. 80 °C
operating temperature of electronic unit	with optional goose-neck max. 125°C
supply voltage	18..30 V DC
current consumption	<30 mA (outputs unconnected)
outputs	electronic , NPN/PNP connectable
output current	max. 200 mA per output
connection	cable or connector M12x1, 4pole
materials	PA66
protection class	IP 64

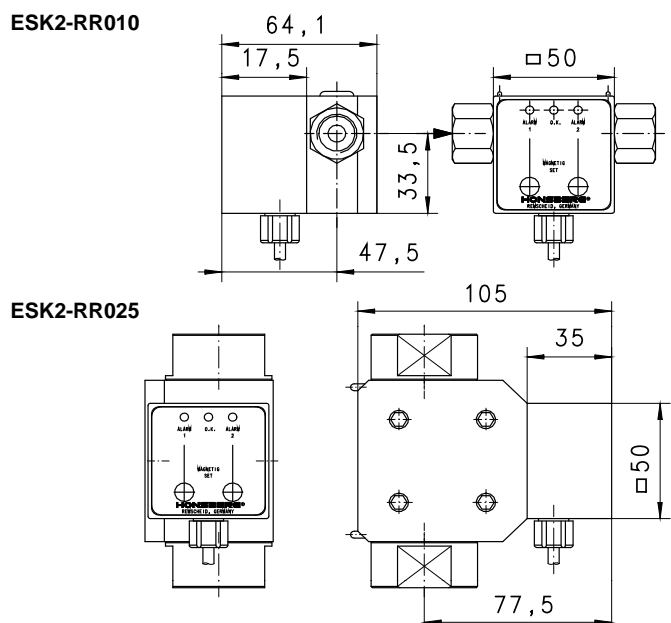
TERMINAL ASSIGNMENT

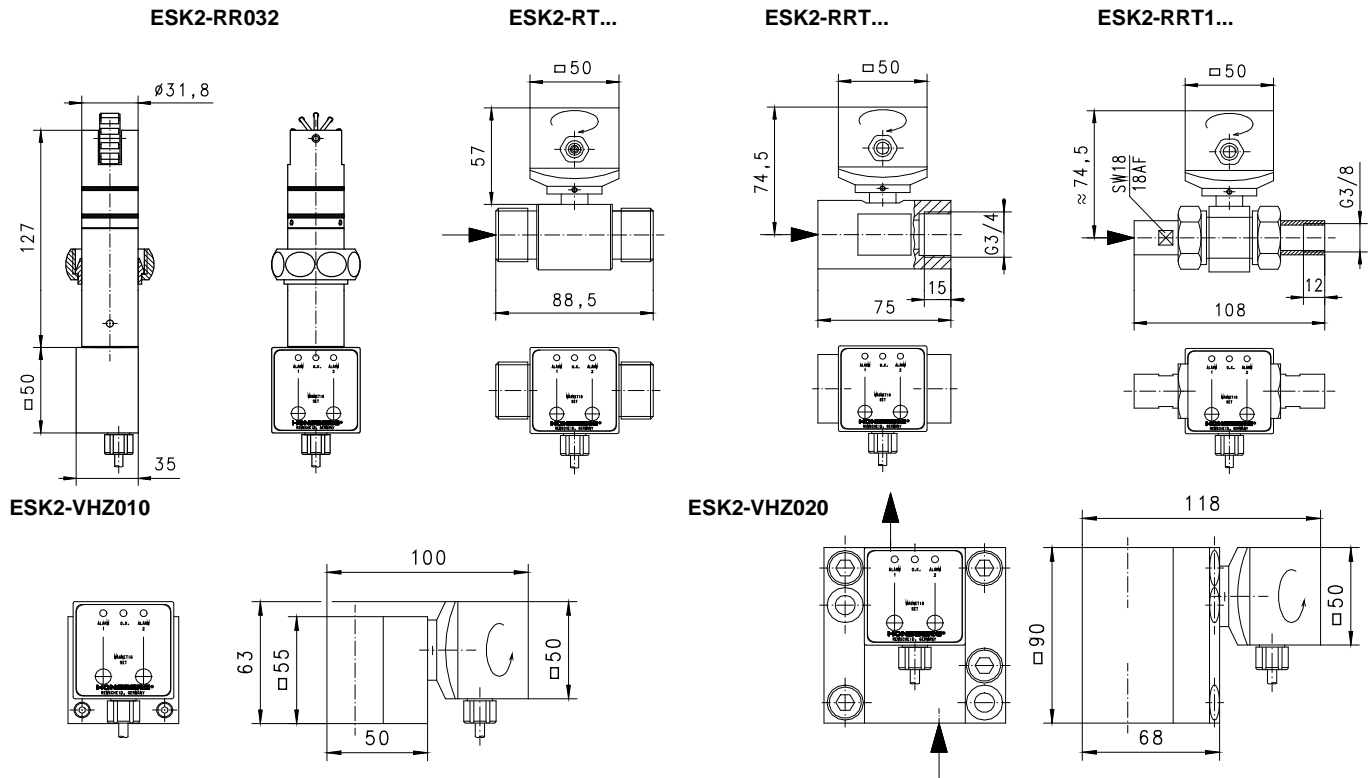


MOUNTING

The ESK2 Electronic Unit must be fully plugged onto the Rototron 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, RRT, RRT1 and VHZ provide the best reading position in any installation orientation due to the rotatable electronic unit.

DIMENSIONS





NOMENCLATURE

ESK2-	RR	010	I	K	basic type specification
ESK2-					● Electronic Monitoring 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 ESK2-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