GHM GROUP - Honsberg | GHM Messtechnik GmbH
Tenter Weg 2-8 | 42897 Remscheid | GERMANY
Phone +49 2191 9672-0 | Fax +49 2191 9672-40
www.ghm-group.de | info@ghm-group.de

HONSBERG
Member of GHM GROUP

Product Information   **ESK3**

Controller Electronics ESK3

- **Controller electronics with 230 V AC supply**
- **Switch contact for high loads**
- **Red / green switching status display**
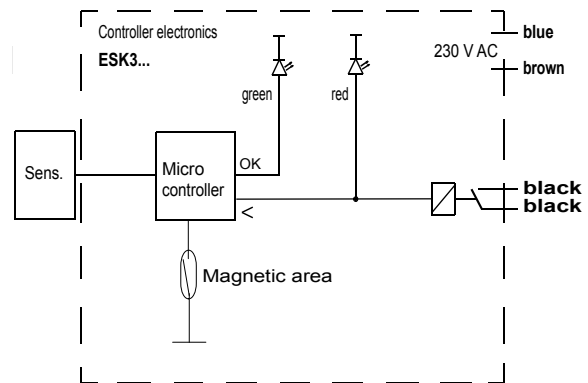- **Simple to use**

Characteristics

With an inductive or a Hall sensor (with or without bias), the electronics record the rotational movements of a rotor blade. The rotational speed is proportional to the flow rate, and is evaluated by a microcontroller which controls a relay. The present status is indicated by a red and a green LED. The electronics are designed in such a way that for almost any conceivable error, the relay always switches to the safe state (contact open = Alarm), ensuring intrinsic safety.

The controller receives frequency signals and, if the minimum value is fallen short of, it causes a relay to return to the rest state (contact open). The compact electronics are connected directly to a suitable transmitter (see "Dimensions").
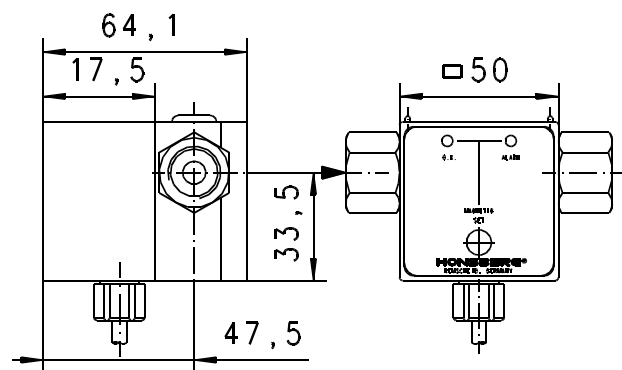
Technical data

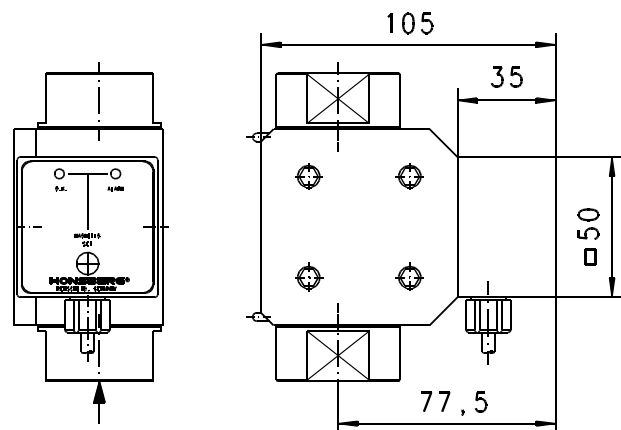| Sensor	inductive proximity switch
Working ranges	
Measurement accuracy	see relevant flow meter
Operating pressure	
Operating temperature for the electronics	-25..+60 °C
Materials	PA6.6
Supply voltage	230 V AC
Current consumption	< 4 mA
Output	relay contact
Switching voltage	Duration: 30 V DC / 250 V AC (cos φ=1) maximum: 380 V AC / 125 V DC
Switching current	2 A (higher values available on request)
Switch performance	1250 VA / 150 W (cos φ=1)
Electrical connection	for round plug connector M12x1, 4-pole optionally cable outlet
Ingress protection	IP 64

Wiring

Dimensions

ESK3-RR010

ESK3-RR025

GHM GROUP - Honsberg | GHM Messtechnik GmbH
Tenter Weg 2-8 | 42897 Remscheid | GERMANY
Phone +49 2191 9672-0 | Fax +49 2191 9672-40
www.ghm-group.de | info@ghm-group.de

HONSBERG
Member of GHM GROUP

Product Information   ESK3

Handling and operation

Installation

The ESA3 electronics must be full inserted into the Rototron flow meter in order to detect the signal securely. For RR.25... there is the option of turning the converter by 90 ° in order to create the most suitable reading position. For RR.10... the position should be stated when ordering). The stainless steel clamp ensures that the electronics remain firmly attached even if there are vibrations.

There are a red and a green LED on the front of the device; they have the following function:

- The green LED lights when the flow rate exceeds the set minimum value (relay is pulled in = contact closed).
- The red LED lights when the minimum flow rate is fallen short of (relay is in rest state = contact open).
- The red LED flashes when an internal error is detected by the microcontroller (relay is in rest state = contact open).

Adjustment

There is a magnetic area on the front (magnetic set), with the aid of which the minimum value can be set as follows:
- When a magnet is placed on this surface, the red and the green LEDs then flash alternately for 4 seconds.
  Then both LEDs light simultaneously for 2 seconds.
- If the magnet is removed from the surface during the 2 second period, the currently existing flow rate is saved as the minimum value.
- If the magnet is removed earlier or later, then the old minimum value is retained without modification.

Ordering code

The base device is ordered, e.g. RRI-xxx with the signal output E and the evaluation electronics described here e.g. ESK3-RRI-10 xxx.

	1.	2.	3.	4.
ESK3-	RR			

○=Option

1.	**For types**	
	RR	for flow meter RR
2.	**Sensor**	
	I	inductive sensor
	H	hall sensor
3.	**Nominal width**	
	010	for flow meter size DN 10
	025	for flow meter size DN 25
4.	**Electrical connection**	
	S	for round plug connector M12x1, 4-pole
	K ○	cable outlet 1,2 m

Options

- Protection class IP 65

Accessories

- Cable/round plug connector (KB...)
  see additional information "Accessories"
- Fixing clamps RR.-010
- Fixing clamps RR.-025