



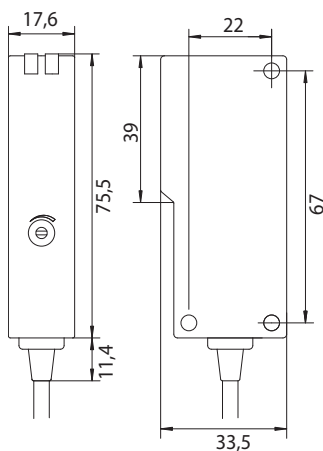
Rotational speed sensor with reflection tag detection



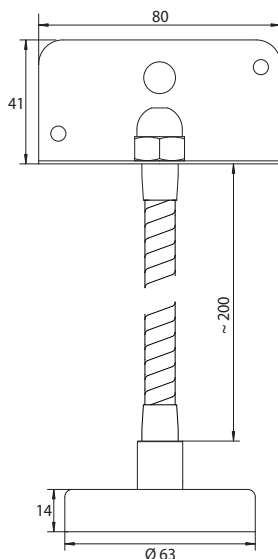
Rotational speed measurement for many applications

The rotational speed sensor RS 110 uses pulsating red light (LED) reflected by a special tag at the rotating target. By using a polarisation filter, only the reflected light impulses are evaluated, disturbing reflections (e.g. unevenness of the surface, bright metal parts, keyways or high-contrast areas) are not detected. This achieves a reliable rotational speed measurement from distances between 50 mm and 4 m*. 25 reflection tags are included. Enter the number of used reflection tags as calibration value into the measuring instrument.

Dimensions



Dimensions magnetic holder (option)



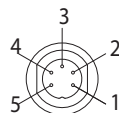
Applications

- Recording the hydraulic efficiency of pumps
- Rotational speed measurement of fans of hydraulic cooling devices

Qualities

Measuring principle	auto-collimation
Light source	power LED with visible red light
Supply voltage U_b	10 ... 30 VDC
Ripple	< 5 Vss
Current consumption	< 30 mA
Output current max.	< 100 mA
Response time	500 μ s
Switching sequence	1,000 Hz
Range	50 ... 500 mm (with standard reflectors)*
Protection type	IP 67
Signal repetition frequency	max. 500 Hz
Output signal	frequency (rectangular signal) / 4 ... 20 mA
Electrical measuring connector	5 pole device connector, M16 x 0.75
Environmental temperature	-40 ... +60 °C
Storage temperature	-40 ... +75 °C
Weight	141 g

Pin assignment



	RS 110 (frequency)	RS 110 (4 ... 20 mA)
Pin 1 = signal +	Pin 1 = signal +	Pin 1 = signal +
Pin 2 = - U_b / GND	Pin 2 = signal - / GND	Pin 2 = signal - / GND
Pin 3 = + U_b	Pin 3 = + U_b	Pin 3 = + U_b
Pin 4 = free	Pin 4 = free	Pin 4 = free
Pin 5 = free	Pin 5 = free	Pin 5 = free

Measuring range	Weight	Order number
	g	
Frequency	140	3130-02-01.00
4 ... 20 mA	320	3130-06-01.00

* other reflectors and ranges on request
For accessories see page 75