

Operating Instructions 15595e

Incremental Speed Sensor FDG 818

The sensor has two rectangular output signals displaced by 90°. These outputs are short circuit proof. The sensor fulfills the highest demands in respect to important environmental conditions such as dirt, pressure, temperature and oil.

1 Technical data

Power supply	9...24 V DC \pm 5 %
Power consumption	0,7 W (without load)
Protection against confusing the poles	integrated
Outputs	2 rectangular output signals displaced by 90 ° in phase quadrature \pm 30 ° when mounted according to instructions
Output Hi	$U_B - 2V$
Output Lo	<0,5 V
Output impedance	60 Ω
Maximum current load	50 mA, short circuit proof
Frequency range	0...100 000 Hz
Pole wheel	Ferro magnetic material Module 1, tooth height >0,5 mm Width of toothed wheel > 10 mm Tolerable airgap toothed wheel → sensor 0,3 mm \pm 0,1 mm In connection with ATM 1605 module 1 - 2
Measuring side pressure proof	20 bar
EMC to IEC 801-4	class 2
Ambient temperature	-20...85 °C
Storage temperature	-20...85 °C
Vibration resistance	200 m/s ²
IEC 68-T2-6	
Shock resistance	2000 m/s ²
IEC 68-T2-27	
Protection	IP 68 (head)/IP 67 (connection)
Housing	stainless steel, M18 x 1, 45 mm thread Total length 100 mm
Connection	5 m PVC cable, 4 shielded wires, isolated from housing

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2 Mounting Instructions

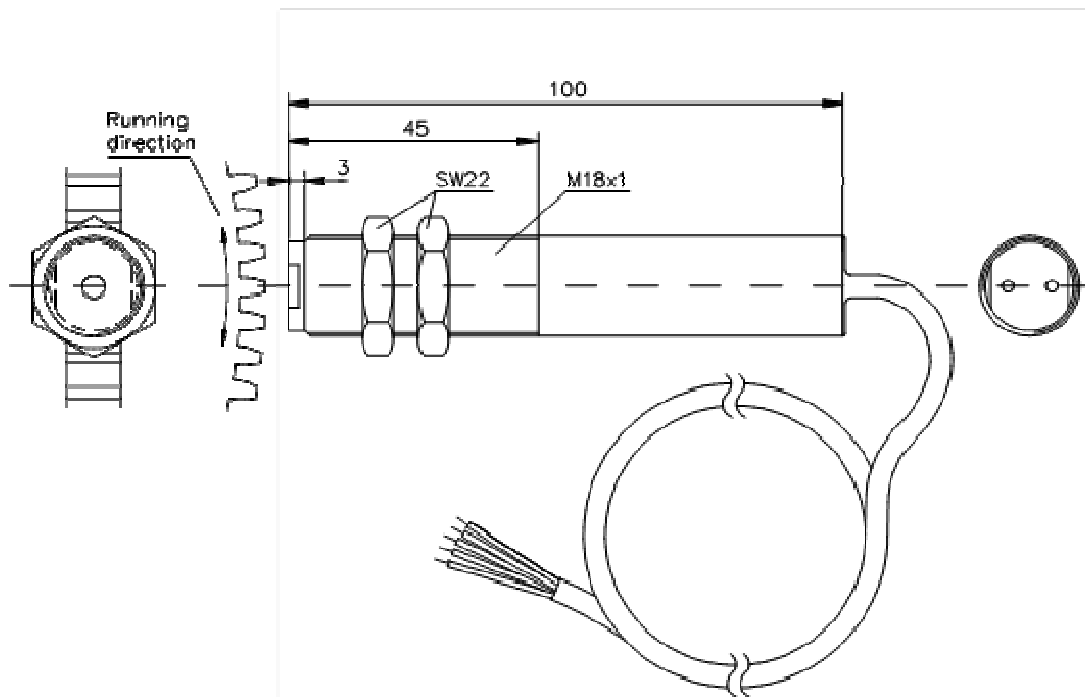
It is important that both flat sides of the sensors are parallel to the running direction of the pole wheel. The required airgap (0,3 mm \pm 0,1) may be adjusted using a slip gauge. If the gap is too big, there will be no signal output. Possible elevator deflection of the pole wheel must be considered. Symmetrical alignment of the sensor to the pole wheel is necessary.

Attention

In order to elude damages, it is extremely important to avoid mechanical contact of pole wheel or tools with the thin (0,1 mm) layer covering the scanning system.

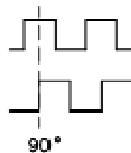
The sensor is fastened using a clamp with mounting hole and two nuts.

Dimensional drawing



Connections

green	+
brown	-
white	signal 1
yellow	signal 2
black	shield



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