

Characteristics

Rated operating distance 1.3 ... 2.5 mm with module 1 ... 4.

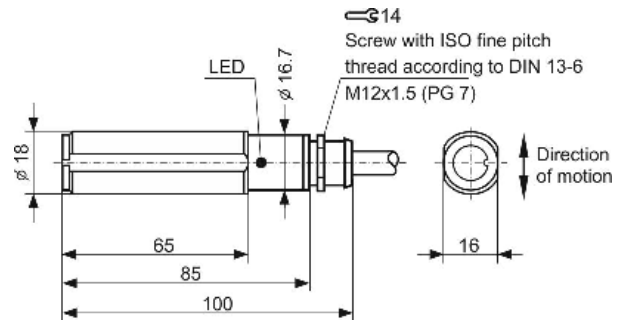
Dynamic version, 5 Hz ... 20 kHz.

DC-three-pole, push-pull output (plus- and minus-switching).

Speed detection with high operating frequency (up to 20 kHz) at a high geometrical resolution capacity (module ≥ 1).

Hall element sensors are unsuitable for detecting slots, for axial approach, and for non-magnetic materials.

Dimensions



Technical data

(with $U_B = 24$ V, $T_U \approx 23$ °C, $I_L = 0$, unless otherwise specified)

Rated operating distances s_n (10 kHz)

1.3 mm with module 1
1.8 mm with module 2
2.4 mm with module 3
2.5 mm with module 4

Effective operating distance s_r $s_n (1 \pm 10 \%)$

Operating voltage U_B 8 ... 24 ... 30 VDC

Permissible ripple voltage 10 %

Current consumption without load ≤ 10 mA

Maximum current-carrying capacity of the output ≤ 25 mA

Residual current (locked output)

plus-switching ≤ 0.5 mA
minus-switching ≤ 2.5 mA

Voltage drop (conductive output; $I_L = 25$ mA)

plus-switching ≤ 12 V
minus-switching ≤ 10 V

Output push-pull, short-circuit-protection ≤ 20 s

Operating frequency f 5 Hz ... 20 kHz

Ambient temperature range T_U - 25 ... + 80 °C

Switching point modification over the temperature - 4 μ m / °C

Reverse polarity protection yes

Connection lead connection, LiYCY 3 x 0.34 mm²

Maximum lead length ≤ 150 m

Weight 150 g (without connection lead)

Design cylinder $\varnothing 18$ mm

Housing material / sensing face steel / plastic (PBT)

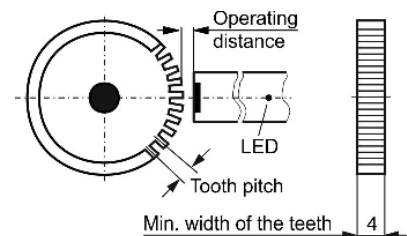
Protection rating according to EN 60529 IP 67

Notes

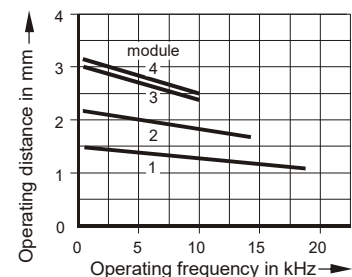
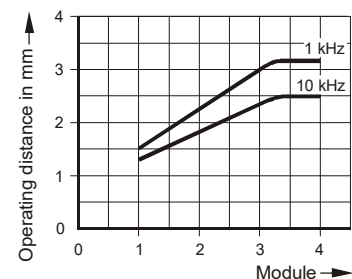
When mounting, the housing has to be aligned vertically to the tooth centres. The switching point is not in the axis of the hall element switch. Keep away metal splinters from the sensing face. Avoid operation near strong magnetic fields. The distance of the connecting cable to the control cables of inductive consumers should be ≥ 30 cm if possible. In case of cable length > 10 m, use a shielded cable. Put shield only device-sided on L- (0 V). After having been switched on the output signal may show a low- or high status without having been actuated.

Mounting instructions

Gear wheel St37 / C45



Operating distance as a function of module and frequency



Certification

Complies with standard EN 60947-5-2



Safety regulations

Connection, start-up and maintenance may only be accomplished by qualified or instructed personnel.

We are certified according to DIN EN ISO 9001

Subject to technical changes!

Connection

DC voltage, three-pole,
push-pull output, PVC lead connection

