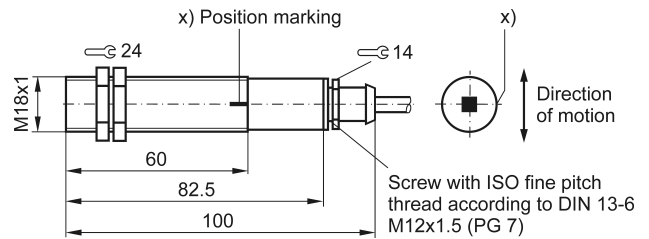


### Characteristics

Rated operating distance 1 mm for module 1.  
Static version, 0 ... 12 kHz.  
DC three-pole, push-pull output (plus- and minus-switching).  
High geometrical resolution (module  $\geq 1$ ).  
Hall element sensors are unsuitable for detecting slots, for axial approach, and for non-magnetic materials.

### Dimensions



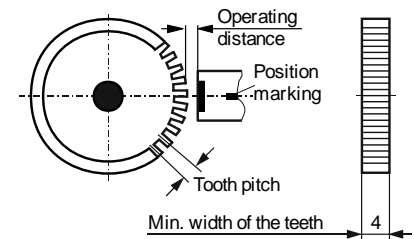
### Technical Data

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

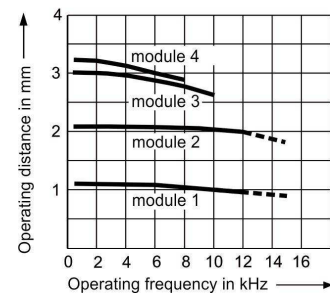
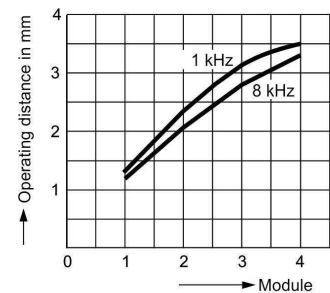
Rated operating distance $s_n$ (10 kHz)	1 mm for module 1
Effective operating distance $s_r$	$s_n (1 \pm 10 \%)$
Operating voltage $U_B$	10 ... 24 ... 30 VDC
Permissible ripple voltage	10 %
Current consumption without load	$\leq 25$ mA
Maximum current load capacity of the output	$\leq 25$ mA
Residual current (locked output)	plus-switching $\leq 0.3$ mA minus-switching $\leq 0.3$ mA
Voltage drop (conductive output; $I_L = 25$ mA)	plus-switching $\leq 12$ V minus-switching $\leq 10$ V
Output	push-pull, short-circuit protection $\leq 20$ s
Operating frequency $f$	0 Hz ... 12 kHz
Ambient temperature range $T_U$	- 25 ... + 80 °C
Protected against polarity reversal	yes
Connection	shielded PVC lead, LiYCY 3 x 0.34 mm <sup>2</sup>
Maximum lead length	$\leq 150$ m
Weight	150 g + lead weight
Design	M18
Housing material / sensing face	stainless steel / plastic (PBT)
Maximum tightening torque	45 Nm
Protection rating according to EN 60529	IP 67

### Mounting Instructions

Gear wheel St37 / C45



### Operating Distance as a Function of Module and Operating Frequency



### Notes

For mounting, a precise vertical alignment of the housing to the tooth flanks is necessary. The switching point is not in the geometric axis of the hall element sensor. Keep away metal cuttings from the sensing face. Avoid operation near strong magnetic fields. The distance between the connecting lead and the control leads of the inductive loads should be  $\geq 30$  cm. When the sensor is switched on but not activated, the output signal may adopt either the low or the high state. The pulse sensor is self-calibrating making necessary several operating cycles to become adapted to the geometry of the application when connected to power supply. When self-calibration is completed, the distance between sensor and actuator must not, as a basic rule, be changed anymore. The periodic changes of the operating distance (caused, for example, by vibrations of the plant), however, are compensated by the evaluation electronics.

### Certification

Complies with standard EN 60947-5-2



### Safety Regulations

Connection, commissioning and maintenance may only be accomplished by qualified or instructed staff.

We are certified according to DIN EN ISO 9001

Subject to technical changes!

### Connection

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

