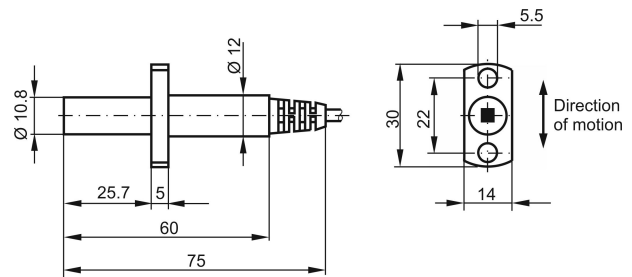


**Characteristics**

Rated operating distance 1.3 ... 2.5 mm for modules 1 ... 4.  
Dynamic version, 5 Hz ... 20 kHz.  
DC four-pole, differential line driver output (5 V, 50 mA).  
Rotation detection with high operating frequency (up to 20 kHz) and high geometrical resolution (module  $\geq 1$ ).  
Detection of approaching or passing soft iron edges.  
Differential output for interference-free transmission.  
Tooth length should not exceed 3 mm.  
Hall element sensors are unsuitable for detecting slots, for axial approach, and for non-magnetic materials.

**Dimensions**



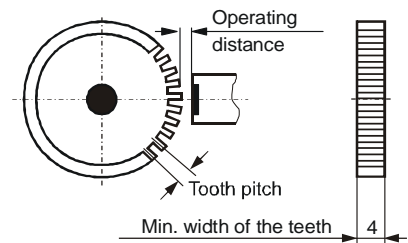
**Technical Data**

(Unless otherwise specified  $U_B = 24\text{ V}$ ,  $T_U \approx 23\text{ }^\circ\text{C}$ , and  $I_L = 0$ )

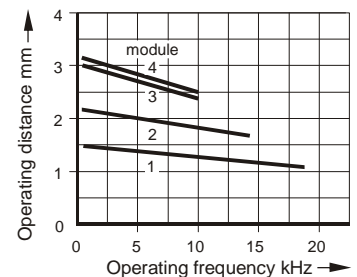
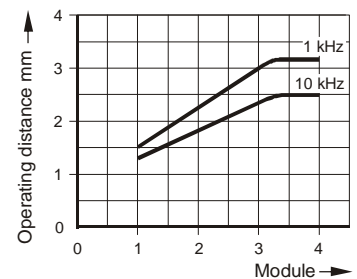
Rated operating distances $s_n$ (10 kHz)	1.3 mm for module 1 1.8 mm for module 2 2.4 mm for module 3 2.5 mm for module 4
Effective operating distance $s_r$	$s_n (1 \pm 10\%)$
Operating voltage $U_B$	10 ... 24 ... 30 VDC
Permissible ripple voltage	10 %
Current consumption without load	$\leq 10\text{ mA}$
Maximum current load capacity of the output	$\leq 50\text{ mA}$
Output	differential output
Operating frequency $f$	5 Hz ... 20 kHz
Ambient temperature range $T_U$	- 25 ... + 80 $^\circ\text{C}$
Reverse polarity protection	yes
Protection against interference voltages	yes
Short-circuit protection	$\leq 20\text{ s}$
Connection	shielded PVC lead, LiYCY 4 x 0,25 mm <sup>2</sup>
Maximum lead length	$\leq 150\text{ m}$
Weight	30 g + lead weight
Design	cylinder, $\varnothing 10.8$ with flange
Housing material / sensing face	brass / plastic (PBT)
Protection rating according to EN 40050	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  $\geq 30\text{ cm}$ . When the sensor is switched on but not activated, the output signal may adopt either the low or the high state.

**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, four-pole,  
differential output, outgoing PVC lead

