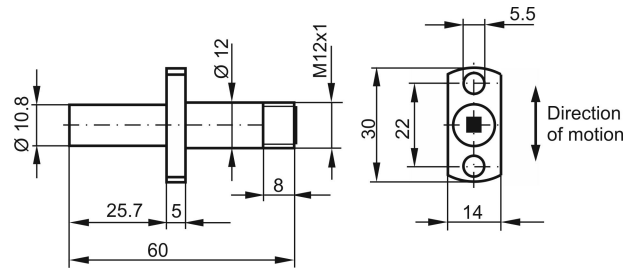


Characteristics

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 ≥ 1).
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



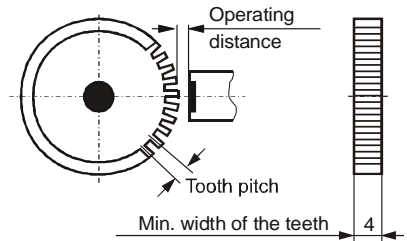
Technical Data

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

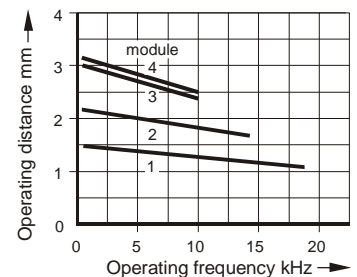
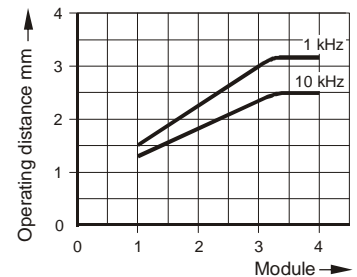
Rated operating distances s_n (10 kHz)	1.3 mm for module 1 1.8 mm for module 2 2.4 mm for module 3 2.5 mm for module 4
Effective operating distance s_n	$s_n (1 \pm 10\%)$
Operating voltage U_B	10 ... 24 ... 30 VDC
Permissible ripple voltage	10 %
Current consumption without load	$\leq 10\text{ mA}$
Maximum 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 voltage	yes
Short-circuit protection	$\leq 20\text{ s}$
Connection	M12 connector, 5-pole
Maximum lead length	$\leq 150\text{ m}$
Weight	30 g
Design	cylinder, $\varnothing 10.8$ with flange
Housing material / sensing face	brass / plastic (PBT)
Protection rating according to EN 60529	IP 65

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

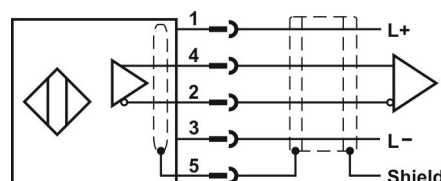
Connection, commissioning and maintenance may only be accomplished by qualified or instructed staff.

We are certified according to DIN EN ISO 9001

Subject to technical changes!

Connection

DC voltage, four-pole, differential output, plug-in connection



Plug

