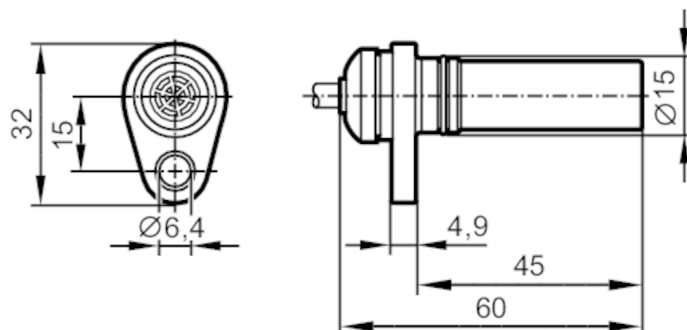


MX5050



Rotational speed sensor

MXD41,7/BPKG/H/0,5/ZH/US



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	1.7; (Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.)
Housing	tubular
Dimensions [mm]	Ø 15 / L = 60

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 40
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	PNP
Output function	normally open
Max. voltage drop switching output DC [V]	1
Max. leakage current [mA]	0.1
Permanent current rating of switching output DC [mA]	50
Short-time current rating of switching output [mA]	50
Switching frequency DC [Hz]	1...15000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Sensing range [mm]	1.7; (Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.)
Real sensing range S_r [mm]	$1.7 \pm 10 \%$
Operating distance [mm]	1.38

Operating conditions

Ambient temperature [°C]	-32...85
Protection	IP 65; IP 68; IP 69K

MX5050



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Tests / approvals		
EMC	EN 61000-4-2	4 kV CD / 8 kV AD
	EN 61000-4-3	10 V/m
	EN 61000-4-4	2 kV
	EN 61000-4-6	10 V/m
	EN 61000-4-8	30 A/m
	EN 55011	0 class B
Shock resistance	DIN EN 60068-2-27	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Na	TA = -10 °C; TB = 70°C; t1 = 60 min; t2 = < 10 s; 20 cycles
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF	[years]	3659

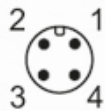
Mechanical data		
Weight	[g]	49.8
Housing		tubular
Dimensions	[mm]	Ø 15 / L = 60
Material		brass; PA; O-ring: FKM
Tightening torque	[Nm]	7
Toothed wheel module	[mm]	1.25
Installation length	[mm]	45

Remarks	
Pack quantity	1 pcs.

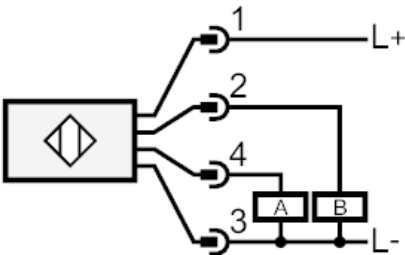
Electrical connection - plug

Cable: 0.5 m, PUR

Connector: 1 x M12; coding: A



Connection



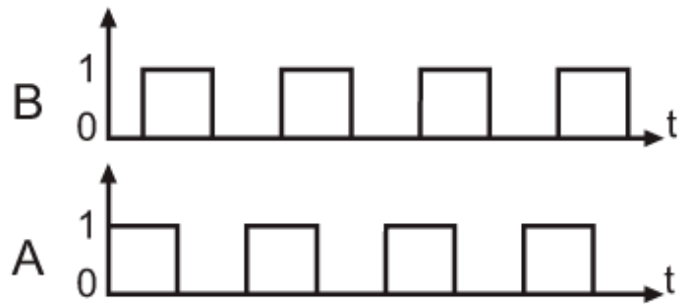


Rotational speed sensor

MXD41,7/BPKG/H/0,5/ZH/US

Diagrams and graphs

Switching signals



phase shift $90^\circ \pm 20^\circ$

pulse/pause ratio 50 % $\pm$ 10 %

Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.