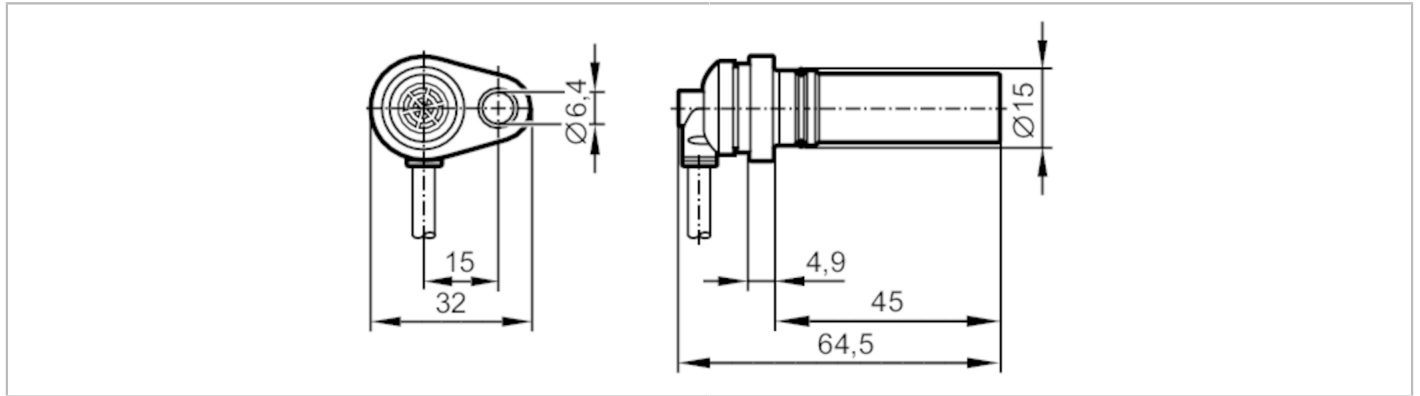


MX5051



Rotational speed sensor

MXD41,7-BPKG/H/ZH



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.)
Dimensions	[mm]	Ø 15 / L = 64.5

Application

Principle of operation		Hall sensor
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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

MX5051



Rotational speed sensor

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Operating conditions

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

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]	3718

Mechanical data

Weight	[g]	86.5
Dimensions	[mm]	Ø 15 / L = 64.5
Material		brass; PA; O-ring: FKM
Tightening torque	[Nm]	7
Toothed wheel module	[mm]	1.25
Installation length	[mm]	45

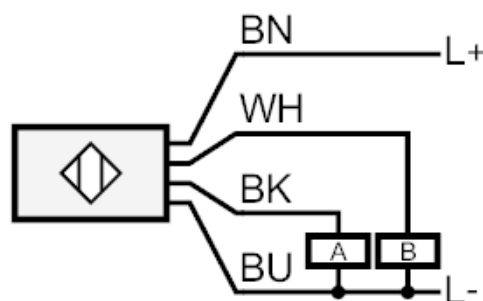
Remarks

Pack quantity		1 pcs.
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Electrical connection

Cable: 2 m, PUR

Connection



MX5051

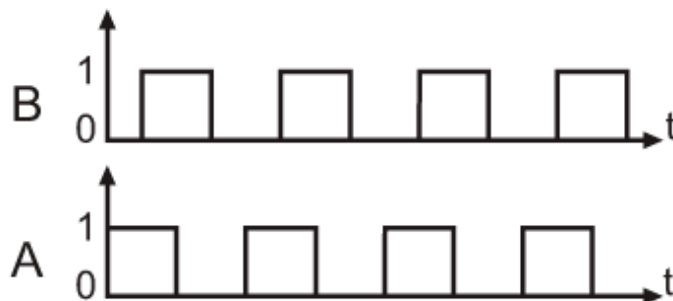


Rotational speed sensor

MXD41,7-BPKG/H/ZH

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.