

IQW201



Inductive sensor

IQ23008BBPKG/K1/SC/0.3M/PUR/US



- 1 LED green
- 2 LED yellow



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	8
Housing	rectangular
Dimensions [mm]	20 x 8 x 32

Application

System	Drag chain suitability; Increased sensing range; Magnetic-field immune
Application	Inductive sensors for welding applications
Magnetic-field immune	yes
Max. electromagnetic field immunity [mT]	300

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 20
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	PNP
Output function	normally open
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100



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Switching frequency DC	[Hz]	2000
Short-circuit protection		yes
Overload protection		yes
Monitoring range		
Sensing range	[mm]	8
Real sensing range Sr	[mm]	8 ± 10 %
Operating distance	[mm]	0...6.48
Increased sensing range		yes
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 1 / brass: 1 / aluminum: 1 / copper: 1
Hysteresis	[% of Sr]	3...15
Switch-point drift	[% of Sr]	-10...10
Operating conditions		
Ambient temperature	[°C]	-40...85
Protection		IP 65; IP 66; IP 67; IP 68
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes
Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-27	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s 50 cycles
MTTF	[years]	1084
UL approval	Ta	-40...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A020
	File number UL	E174191
Mechanical data		
Weight	[g]	40.9
Housing		rectangular
Mounting		flush mountable
Dimensions	[mm]	20 x 8 x 32
Material		diecast zinc weld coated; sensing face: LCP black; LED window: TPU (urethane); potting: PUR
Drag chain suitability		yes
Drag chain suitability	Bending radius for flexible applications	min. 10 x cable diameter
	Bending cycles	> 5 Mio.

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Displays / operating elements

Display	Display operation	1 x LED, green
	Switching status	1 x LED, yellow

Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 0.3 m, PUR, Ø 4.9 mm; 3 x 0.34 mm²

Connector: 1 x M12; coding: A



Connection

