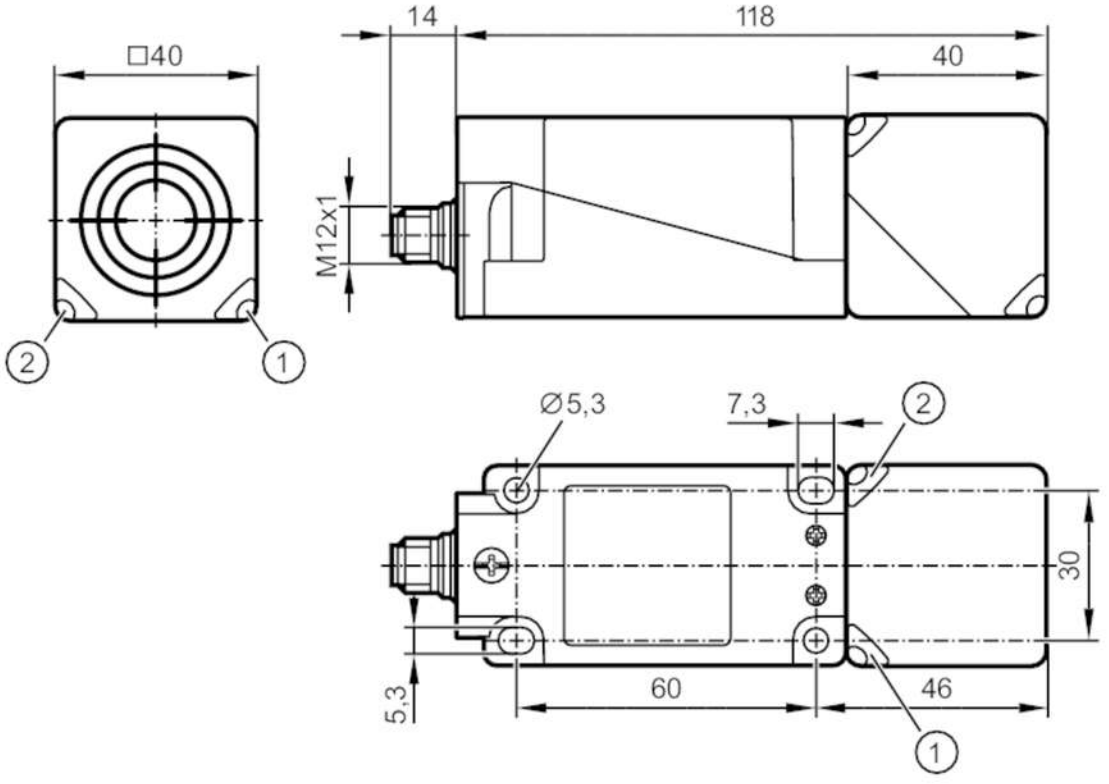
IV5060

Inductive sensor

IVE3020UBPKG/US



1 LED green
2 LED yellow

Product characteristics		
Electrical design		PNP
Output function		normally open
Sensing range	[mm]	20
Housing		rectangular
Dimensions	[mm]	40 x 40 x 118
Application		
Special feature		Magnetic-field immune
Magnetic-field immune		yes
Electrical data		
Operating voltage	[V]	10...30 DC; ("supply class 2" according to UL ; "supply limited voltage / current" to UL)
Current consumption	[mA]	20; (24 V)
Protection class		II
Reverse polarity protection		yes
Outputs		
Electrical design		PNP
Output function		normally open
Max. voltage drop switching output DC	[V]	3

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Permanent current rating of switching output DC [mA]		200
Switching frequency DC [Hz]		5
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Sensing range [mm]		20
Real sensing range Sr [mm]		20 ± 10 %
Operating distance [mm]		0...16.2
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.3
Hysteresis [% of Sr]		1...10
Switch point drift [% of Sr]		-10...10
Operating conditions		
Ambient temperature [°C]		-25...85
Note on ambient temperature		for UL application: ...70 °C
Max. height above sea level [m]		2000
Protection		IP 68; IP 69K
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 60682-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles, 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 60068-2-29 Eb	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature change	EN 60068-2-14 Na	TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles
MTTF [years]		582.6
UL approval	Ta	0...70 °C
	Enclosure type	Type 1
	power supply	Class 2
	File number UL	E174191
Mechanical data		
Weight [g]		253
Housing		rectangular
Mounting		flush mountable
Dimensions [mm]		40 x 40 x 118
Materials		PA 6.6; diecast zinc epoxy coated; sensing face: PA 6.6; LED window: PA; lower part: PA 6.6; screws: stainless steel

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Inductive sensor

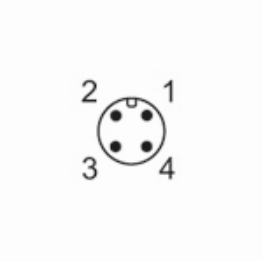
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Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green

Remarks	
Remarks	5 positions of the active zone possible
	For use in NFPA 79 applications only
Pack quantity	1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A



Connection

