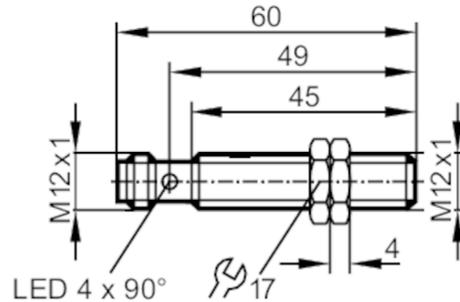


IF503A



Inductive full-metal sensor

IFK3003BBPKG/AM/US104DPS/3G/3D



Product characteristics

Electrical design		PNP
Output function		normally open
Sensing range	[mm]	3
Housing		threaded type
Dimensions	[mm]	M12 x 1 / L = 60

Application

Special feature		Gold-plated contacts; Increased sensing range; Full-metal housing
Pressure rating	[bar]	100
Note on pressure rating		sensing face

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
Switching frequency DC	[Hz]	100
Short-circuit protection		yes
Overload protection		yes

Detection zone

Sensing range	[mm]	3
Real sensing range Sr	[mm]	3 ± 10 %
Operating distance	[mm]	0...2.43
Increased sensing range		yes

Accuracy / deviations

Correction factor		steel: 1 / stainless steel: 0.6 / brass: 0.7 / aluminium: 0.6 / copper: 0.3
-------------------	--	---

IF503A



Inductive full-metal sensor

IFK3003BBPKG/AM/US104DPS/3G/3D

Hysteresis	[% of Sr]	1...20
Switch point drift	[% of Sr]	-10...10

Operating conditions

Ambient temperature	[°C]	-40...60
Protection		IP 67; (when used outside the hazardous area: IP 65, IP 67, IP 68, IP 69K)

Tests / approvals

ATEX marking	II 3G Ex ec IIC T6 Gc X; II 3D Ex tc IIIC T85°C Dc X	
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
Impact resistance	EN 60068-2-75 Ehc	1 J
Vibration resistance	EN 60068-2-6 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 60068-2-27 Ea	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
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF	[years]	1258

Mechanical data

Weight	[g]	54
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 60
Thread designation		M12 x 1
Materials		stainless steel (1.4404 / 316L); PEI; lock nuts: stainless steel
Tightening torque	[Nm]	15
Full-metal housing		yes

Displays / operating elements

Display	switching status	4 x 90° LED, yellow
---------	------------------	---------------------

Accessories

Items supplied		lock nuts: 2
----------------	--	--------------

Remarks

Pack quantity		1 pcs.
---------------	--	--------

IF503A



Inductive full-metal sensor

IFK3003BBPKG/AM/US104DPS/3G/3D

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection

