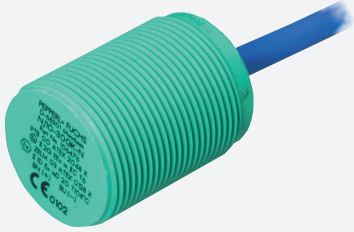


Inductive sensor NJ15-30GK-N-30M



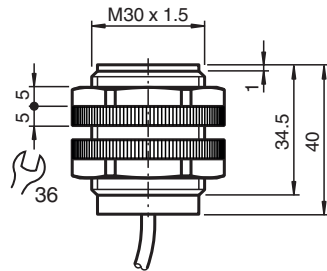
■ 15 mm non-flush

CE
0102

EAC

c UL US

Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	15 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 12.15 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85
Output type		2-wire

Nominal ratings

Installation conditions		
A		18 mm
B		30 mm
C		45 mm
F		90 mm

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 325278_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

Technical Data

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 100 Hz
Hysteresis	H	1 ... 5 typ. 3 %
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		\leq 1 mA
Functional safety related parameters		
MTTF _d		4560 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
EAC conformity		TR CU 012/2011
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated \leq 36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications		
Connection type		cable PVC , 30 m
Core cross-section		0.75 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP66 / IP68
Cable		
Bending radius		> 10 x cable diameter
Data for application in connection with hazardous areas		
Equipment protection level		Gb , Gc (nA) , Mb
Equipment protection level Gb		
Type of protection		intrinsic safety
CE marking		[*PD-Z02585A*]
Certificates		
Appropriate type		NJ15-30GK...-N...
ATEX certificate		PTB 00 ATEX 2048 X
ATEX marking		Ⓔ II 2G Ex ia IIC T6...T1 Gb
Standards		EN 60079-0:2012+A11:2013 , EN 60079-11:2012
IECEX certificate		IECEX PTB 11.0037X
IECEX marking		Ex ia IIC T6...T1 Gb
Standards		IEC 60079-0:2011 , IEC 60079-11:2011
Effective internal capacitance	C_i	max. 140 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	max. 100 μ H A cable length of 10 m is considered.

Technical Data

Maximum permissible ambient temperature	T_{amb}	<p>Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$, $T_6 : 73\text{ °C}$ (163.4 °F) $T_5 : 88\text{ °C}$ (190.4 °F) $T_4 : 100\text{ °C}$ (212 °F) $T_3 : 100\text{ °C}$ (212 °F) $T_2 : 100\text{ °C}$ (212 °F) $T_1 : 100\text{ °C}$ (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$, $T_6 : 69\text{ °C}$ (156.2 °F) $T_5 : 84\text{ °C}$ (183.2 °F) $T_4 : 100\text{ °C}$ (212 °F) $T_3 : 100\text{ °C}$ (212 °F) $T_2 : 100\text{ °C}$ (212 °F) $T_1 : 100\text{ °C}$ (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$, $T_6 : 51\text{ °C}$ (123.8 °F) $T_5 : 66\text{ °C}$ (150.8 °F) $T_4 : 80\text{ °C}$ (176 °F) $T_3 : 80\text{ °C}$ (176 °F) $T_2 : 80\text{ °C}$ (176 °F) $T_1 : 80\text{ °C}$ (176 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$, $T_6 : 39\text{ °C}$ (102.2 °F) $T_5 : 54\text{ °C}$ (129.2 °F) $T_4 : 61\text{ °C}$ (141.8 °F) $T_3 : 61\text{ °C}$ (141.8 °F) $T_2 : 61\text{ °C}$ (141.8 °F) $T_1 : 61\text{ °C}$ (141.8 °F)</p>
---	-----------	---

Equipment protection level Da

Type of protection		intrinsic safety
CE marking		[*PD-Z02585A*]
Certificates		
Appropriate type		NJ15-30GK...-N...
ATEX certificate		PTB 00 ATEX 2048 X
ATEX marking		Ⓔ II 1D Ex ia IIIC T135°C Da
Standards		EN 60079-0:2012+A11:2013, EN 60079-11:2012
IECEX certificate		IECEX PTB 11.0037X
IECEX marking		Ex ia IIIC T135°C Da
Standards		IEC 60079-0:2011, IEC 60079-11:2011
Effective internal capacitance	C_i	max. 140 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	max. 100 µH A cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	<p>Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$: 80 °C (176 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$: 61 °C (141.8 °F)</p>

Equipment protection level Mb

Type of protection		intrinsic safety
Certificates		
Appropriate type		NJ15-30GK...-N...
IECEX certificate		IECEX PTB 11.0037X
IECEX marking		Ex ia I Mb
Standards		IEC 60079-0:2011, IEC 60079-11:2011
Effective internal capacitance	C_i	max. 140 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	max. 100 µH A cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	<p>Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$: 80 °C (176 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$: 61 °C (141.8 °F)</p>

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 325278_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

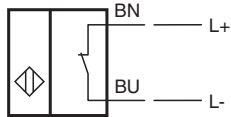
Technical Data

General information

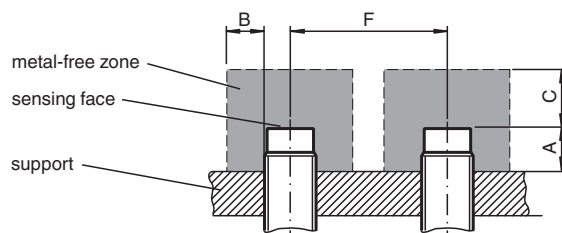
Use in the hazardous area

see instruction manuals

Connection



Installation



Accessories

	BF 30	Mounting flange, 30 mm
--	--------------	------------------------