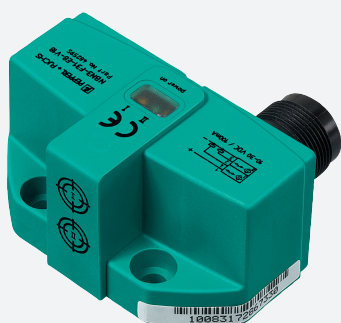




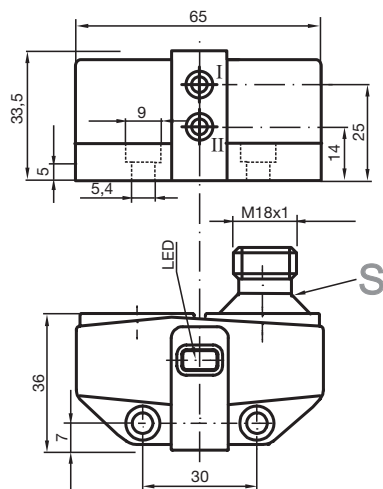
Inductive sensor

NBN3-F31-E8-V18

- Direct mounting on standard actuators
- Fixed setting



Dimensions



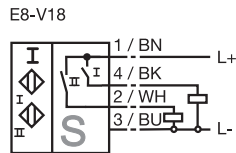
Technical Data

General specifications			
Switching function		2 x normally open (NO)	
Output type		PNP	
Rated operating distance	s_n	3 mm	
Installation		flush mountable	
Output polarity		DC	
Assured operating distance	s_a	0 ... 2.43 mm	
Actual operating distance	s_r	2.7 ... 3.3 mm typ.	
Reduction factor r_{AI}		0.5	
Reduction factor r_{Cu}		0.4	
Reduction factor r_{304}		1	
Reduction factor r_{SI37}		1.2	
Output type		3-wire	

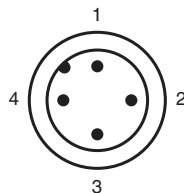
Technical Data

Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		all connections
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.1 mA typ. 20 μ A at 25 °C
No-load supply current	I_0	≤ 25 mA
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		780 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
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 020/2011
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		Connector plug M18 x 1 , 4-pin
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Matching system components

	BT115A	Activator for F31 series
	BT115X	Activator for F31 series

Accessories

	BT65B	Activator for F31 series
	BT115B	Activator for F31 series
	V18-G	Cable socket in M18 format, ready for make up
	V18-W	Cable socket in M18 format, ready for make up
	BT65A	Activator for F31 series
	BT65X	Activator for F31 series