

Model Number

NBB15-U1-A2-V1

Features

- Sensor head bidirectional and rotatable
- 15 mm flush
- 4 LEDs indicator for 360° visibility

Accessories

V1-W Female connector, M12, 4-pin, field attachable V1-W-2M-PUR Female cordset, M12, 4-pin, PUR cable MHW 01 Modular mounting bracket MH 04-2681F Mounting aid for VariKont, +U1+ and +U9* V1-G Female connector, M12, 4-pin, field attachable V1-G-2M-PUR Female cordset, M12, 4-pin, PUR cable

Technical Data				
General specifications				
Switching element function		PNP	NO/NC	
Rated operating distance	s _n	15 mm		
Installation		flush		
Output polarity		DC		
Assured operating distance	sa	0 12.15 r	nm	
Reduction factor r _{Al}		0.33	0.33	
Reduction factor r _{Cu}		0.3		
Reduction factor r ₃₀₄	Reduction factor r ₃₀₄			
Reduction factor r _{Brass}		0.41		
Nominal ratings				
Operating voltage	UB	10 30 V		
Switching frequency	f	0 200 Hz	<u>r</u>	
Hysteresis	Н	typ. 5 %		
Reverse polarity protection		reverse polarity protect		
Short-circuit protection		pulsing		
Voltage drop	Ud	≤ 2 V		
Operating current	۱L	0 200 m/	4	
Off-state current	l _r	0 0.5 mA	1	
No-load supply current	I ₀	≤ 20 mA		
Time delay before availability	t _v	80 ms		
Operating voltage indicator				
Switching state indicator		LED, yellow		
Functional safety related param	eters			
MTTF _d		1230 a		
Mission Time (T _M)		20 a	20 a	
Diagnostic Coverage (DC)		0 %		
Ambient conditions				
Ambient temperature		-25 85 °C	C (-13 18	
Mechanical specifications				
Connection type		Connector	M12 x 1 . 4	
Housing material			PA/metal with epoxy p	
Sensing face		PA	- F - 7 F	
Housing base		plastic		
Degree of protection		IP68 / IP69	к	
Mass		225 g		
Note	Tightening	torque: 1.8		
Compliance with standards and	directive	0 0	4	
Standard conformity				
Standards		EN 60947-	5-2.2007	
Clandardo		IEC 60947-		

	-0	
		flush
		DC
	sa	0 12.15 mm
		0.33
		0.3
		0.74
		0.41
	U _B	10 30 V
	f	0200 Hz
	H	typ. 5 %
		reverse polarity protected
		pulsing
	Ud	≤2V
	II II	0 200 mA
	l,	0 0.5 mA
	l _o	≤ 20 mA
	tv	80 ms
	·	LED, green
		LED, yellow
amete	rs	
		1230 a
		20 a
		0%
		-25 85 °C (-13 185 °F)
		Connector M12 x 1, 4-pin
		PA/metal with epoxy powder coating
		PA
		plastic
		IP68 / IP69K
		225 g
		Tightening torque: 1.8 Nm (housing)
and dir	ectives	
		EN 60947-5-2:2007
		IEC 60947-5-2:2007
		cULus Listed, General Purpose

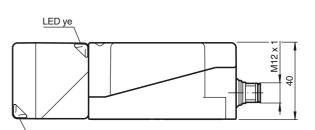
Dimensions

UL approval

CSA approval

CCC approval

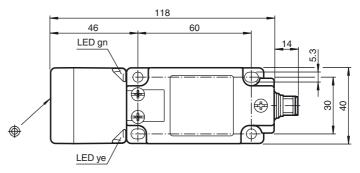
Approvals and certificates



cCSAus Listed, General Purpose

CCC approval / marking not required for products rated ≤36 V





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

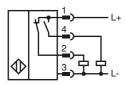
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NBB15-U1-A2-V1

Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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

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

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