



### Model Number

NJ40+U4+W-BHMS3-N.O.

### Features

- 2-wire AC
- Surface mount
- Sensing range 40 mm

## Technical Data

### General specifications

Switching element function		AC	NO
Rated operating distance	$s_n$	40 mm	
Installation		non-flush	
Output polarity		AC	
Assured operating distance	$s_a$	0 ... 32.4 mm	
Reduction factor $r_{Al}$		0.5	
Reduction factor $r_{Cu}$		0.45	
Reduction factor $r_{304}$		0.8	

### Nominal ratings

Operating voltage	$U_B$	20 ... 253 V <sup>1)</sup>
Switching frequency	$f$	0 ... 20 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %
Voltage drop	$U_d$	$\leq 5$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 10$ mA, switching element		6 ... 11 V typ. 9 V on $U_d$
Voltage drop $I_L = 20$ mA, switching element		5 ... 9.5 V typ. 8 V on $U_d$
Voltage drop $I_L = 50$ mA, switching element		4 ... 7.5 V typ. 6.8 V on $U_d$
Voltage drop $I_L = 100$ mA, switching element		4 ... 7 V typ. 6.5 V on $U_d$
Voltage drop $I_L = 200$ mA, switching element		4 ... 7 V typ. 6.5 V on $U_d$
Voltage drop $I_L = 200$ mA, $T_U = 23^\circ\text{C}$ , switching element		4 ... 7 V typ. 6 V on $U_d$
Voltage drop $I_L = 500$ mA, switching element		4 ... 7 V typ. 6 V on $U_d$
Momentary current (20 ms, 0.1 Hz)		0 ... 3000 mA
Operating current	$I_L$	8 ... 500 mA
Off-state current	$I_r$	0.5 ... 1.95 mA typ. 1.2 mA
Off-state current $U_B = 24$ V, switching element off		0.5 ... 1.7 mA typ. 1.2 $\mu\text{A}$
Time delay before availability	$t_v$	$\leq 100$ ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	760 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

### Mechanical specifications

Connection type	Quick disconnect type BHMS3
Housing material	PBT
Sensing face	PBT
Housing base	metal
Degree of protection	IP68
Note	<sup>1)</sup> In the temperature range below 0 °C, permissible operating voltage $U_b$ 80...253 V

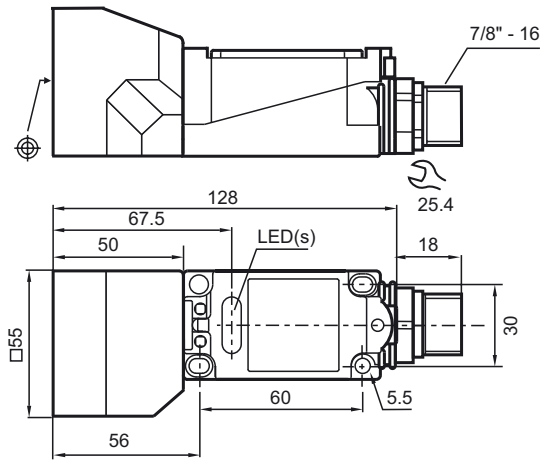
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

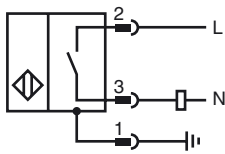
### Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Certified by China Compulsory Certification (CCC)

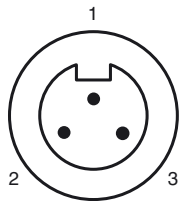
Dimensions



Electrical Connection



Pinout



Wire colors

1	GN	(green)
2	BK	(black)
3	WH	(white)

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