



Model Number

NJ40+U1+E

Features

- Comfort series
- 40 mm non-flush

Accessories

V1-M20-80

Receptacles, M12/M20; plastic version

MHW 01

Modular mounting bracket

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

Technical Data

General specifications

Switching element function		NPN	NO
Rated operating distance	s_n	40 mm	
Installation		non-flush	
Output polarity		DC	
Assured operating distance	s_a	0 ... 32.4 mm	
Actual operating distance	s_r	36 ... 44 mm typ. 40 mm	
Reduction factor r_{AI}		0.5	
Reduction factor r_{CU}		0.45	
Reduction factor r_{304}		0.8	

Nominal ratings

Operating voltage	U_B	10 ... 60 V	
Switching frequency	f	0 ... 100 Hz	
Hysteresis	H	1 ... 10 typ. 5 %	
Reverse polarity protection		reverse polarity protected	
Short-circuit protection		pulsing	
Voltage drop	U_d	≤ 2.8 V	
Voltage drop at I_L			
Voltage drop $I_L = 1$ mA, switching element on U_d		0.5 ... 2.3 V typ. 0.9 V	
Voltage drop $I_L = 10$ mA, switching element on U_d		0.8 ... 2.2 V typ. 1.4 V	
Voltage drop $I_L = 20$ mA, switching element on U_d		0.9 ... 2.3 V typ. 1.5 V	
Voltage drop $I_L = 50$ mA, switching element on U_d		0.9 ... 2.5 V typ. 1.6 V	
Voltage drop $I_L = 100$ mA, switching element on U_d		1 ... 2.6 V typ. 1.8 V	
Voltage drop $I_L = 200$ mA, switching element on U_d		1.2 ... 2.8 V typ. 2 V	
Operating current	I_L	0 ... 200 mA	
Off-state current	I_r	0 ... 0.5 mA typ. 0.01 mA	
Off-state current $T_U = 40$ °C, switching element off		≤ 100 μ A	
No-load supply current	I_0	≤ 10 mA	
Time delay before availability	t_v	≤ 100 ms	
Operating voltage indicator		LED, green	
Switching state indicator		LED, yellow	

Ambient conditions

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

Mechanical specifications

Connection type	screw terminals
Information for connection	A maximum of two conductors with the same core cross-section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 % up to 2.5 mm ²
Core cross-section	
Minimum core cross-section	without wire end ferrule 0.5 mm ² , with connector sleeves 0.34 mm ²
Maximum core cross-section	without wire end ferrule 2.5 mm ² , with connector sleeves 1.5 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP68

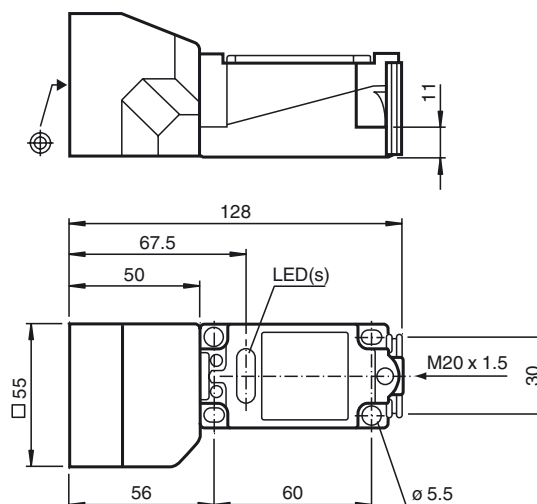
Compliance with standards and directives

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

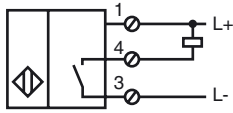
Approvals and certificates

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

Dimensions



Electrical Connection



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