



Model Number

NJ40+U1+E2

Features

- **Comfort series**
- **40 mm non-flush**

Accessories

V1-M20-80

Receptacles, M12/M20; plastic version

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

MHW 01

Modular mounting bracket

Technical Data

General specifications

Switching element function	PNP	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 µA

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

Functional safety related parameters

MTTF_d 580 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 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 %

Core cross-section up to 2.5 mm²

Minimum core cross-section without wire end ferrule 0.5 mm², with connector sleeves 0.34 mm²

Maximum core cross-section without wire end ferrule 2.5 mm², with connector sleeves 1.5 mm²

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

EAC conformity TR CU 020/2011

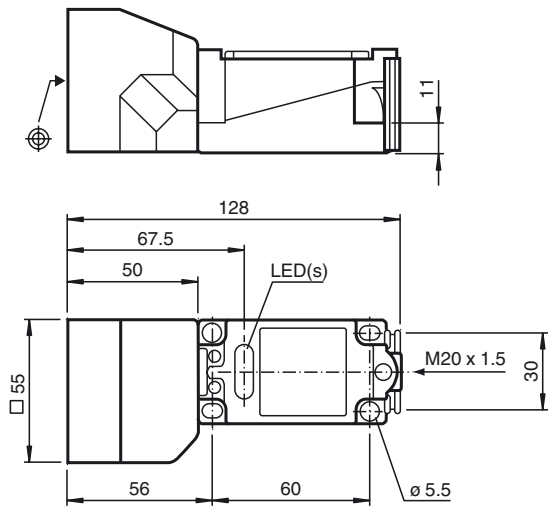
UL approval cULus Listed, General Purpose

CSA approval cCSAus Listed, General Purpose

CCC approval Certified by China Compulsory Certification (CCC)



Dimensions



Electrical Connection

