



**Model Number**

NJ40+U2+N

**Features**

- Comfort series

**Accessories**

**MH 04-2681F**  
Mounting aid for VariKont, +U1+ and +U9\*

**MH 04-2057B**  
Mounting aid for VariKont and +U1+

**MHW 01**  
Modular mounting bracket

**Technical Data**

**General specifications**

Switching function	Normally closed (NC)
Output type	NAMUR
Rated operating distance	$s_n$ 40 mm
Installation	non-flush
Assured operating distance	$s_a$ 0 ... 32.4 mm
Reduction factor $r_{AI}$	0.4
Reduction factor $r_{Cu}$	0.3
Reduction factor $r_{304}$	0.85
Output type	2-wire

**Nominal ratings**

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 80 Hz
<b>Current consumption</b>		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA

**Functional safety related parameters**

MTTF <sub>d</sub>	2588 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

**Ambient conditions**

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
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**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 mm <sup>2</sup>
Minimum core cross-section	without wire end ferrule 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>
Maximum core cross-section	without wire end ferrule 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Degree of protection	IP68

**General information**

Use in the hazardous area	see instruction manuals
Category	2G

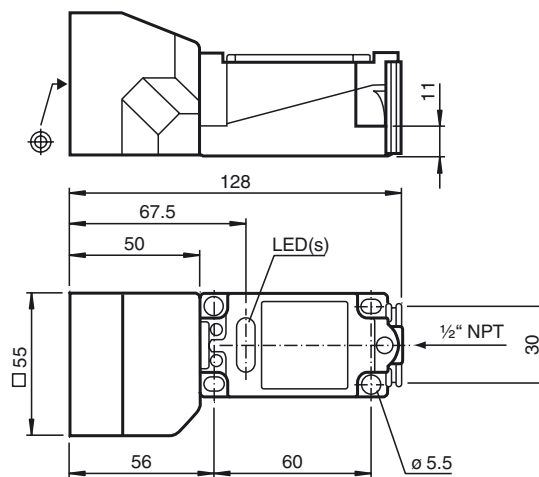
**Compliance with standards and directives**

<b>Standard conformity</b>	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

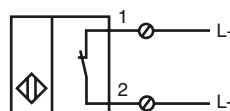
**Approvals and certificates**

<b>FM approval</b>	
Control drawing	116-0165
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

**Dimensions**




**Electrical Connection**




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**Equipment protection level Gb**

CE marking	CE 0102	
ATEX marking	 II 2G Ex ia IIC T6...T1 Gb The Ex-related marking can also be printed on the enclosed label.	
Standards	EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NJ 40+...+N...	
Effective internal capacitance	$C_i$	$\leq 180 \text{ nF}$ ; a cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 130 \text{ }\mu\text{H}$ ; a cable length of 10 m is considered.
Maximum permissible ambient temperature $T_{amb}$	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EU-type examination certificate.	

**Special conditions****Equipment protection level Da**

CE marking	CE 0102	
ATEX marking	 II 1D Ex ia IIIC T135°C Da The Ex-related marking can also be printed on the enclosed label.	
Standards	EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NJ 40+...+N...	
Effective internal capacitance	$C_i$	$\leq 180 \text{ }\mu\text{F}$ A cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 130 \text{ }\mu\text{H}$ A cable length of 10 m is considered.

**Special conditions**