

# Inductive sensor

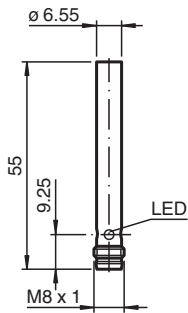
## NEB3-6,5M45-E1-V3



- Increased operating distance
- 3 mm quasi flush
- Extended temperature range  
-40 ... +85 °C



### Dimensions



### Technical Data

#### General specifications

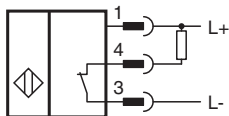
Switching function		Normally closed (NC)
Output type		NPN
Rated operating distance	$s_n$	3 mm
Installation		quasi flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 2.43 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 9 mm x 9 mm x 1 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.45
Output type		3-wire
<b>Nominal ratings</b>		
Installation conditions		
A		in steel 1.0037 (St37): 1 mm
B		6 mm
C		9 mm
F		16 mm
Operating voltage	$U_B$	5 ... 30 V
Switching frequency	f	0 ... 3500 Hz

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## Technical Data

Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 1.5$ V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.2 mA
No-load supply current	$I_0$	$\leq 10$ mA
Time delay before availability	$t_v$	$\leq 100$ ms
Switching state indicator		Multihole-LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		960 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M8 x 1 , 3-pin
Housing material		brass, nickel-plated
Sensing face		LCP
Degree of protection		IP65 / IP66 / IP67
Mass		8 g
Dimensions		
Length		55 mm
Diameter		6.5 mm

## Connection



## Connection Assignment



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Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
3		BU	(blue)
4		BK	(black)

## Installation

