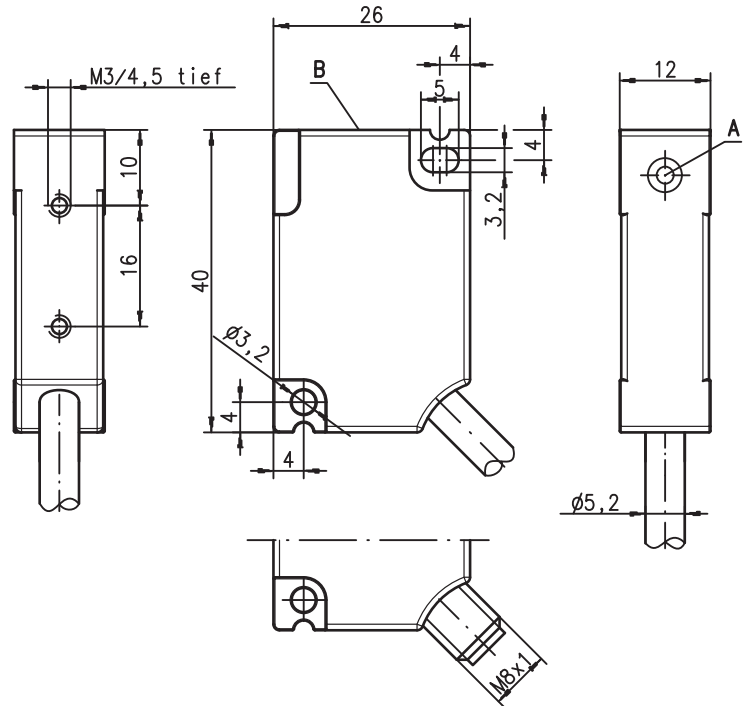


en 02-2012/08 50114420



Dimensioned drawing



		<b>4mm</b>
<b>10 - 30 V</b> DC		<b>flush</b> 1400 Hz

- Plastic 40 x 12mm cubical housing
- Built-in short circuit protection, polarity reversal protection
- LED for switching state

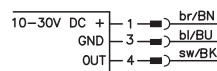


Tightening torque of the fastening screws < 1.1 Nm !

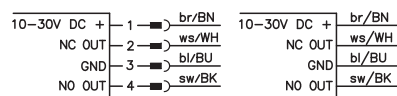
- A Active surface
- B Yellow indicator diode

Electrical connection

3-conductor design



4-conductor design



Accessories:

(available separately)

- M8 connectors (KD ...)
- Ready-made cables (K-D ...)


We reserve the right to make changes • DS\_IS240E\_en\_50114420.fm

## Specifications

### General specifications

Type of installation	IS 240...-4E0... embedded installation
Typ. operating range limit $S_n$	4.0mm
Operating range $S_a$	0 ... 3.2mm

### Electrical data

Operating voltage $U_B$ <sup>1)</sup>	10 ... 30VDC
Residual ripple $\sigma$	$\leq 20\%$ of $U_B$
Output current $I_L$	$\leq 250$ mA
Open-circuit current $I_0$	$\leq 10$ mA
Residual current $I_r$	$\leq 100$ $\mu$ A
Switching output/function	.../44... PNP transistor, make-contact + break-contact (NO + NC), complementary .../22... NPN transistor, make-contact + break-contact (NO + NC), complementary .../4NO... PNP transistor, make-contact (NO)

Voltage drop $U_d$	$\leq 2.5$ V
Hysteresis H of $S_r$	typ. 5%
Repeatability of $S_r$	$\leq 10\%$ <sup>2)</sup>

### Timing

Switching frequency f	$\leq 1400$ Hz
Delay before start-up	$\leq 300$ ms

### Indicators

Yellow LED	switching state
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### Mechanical data

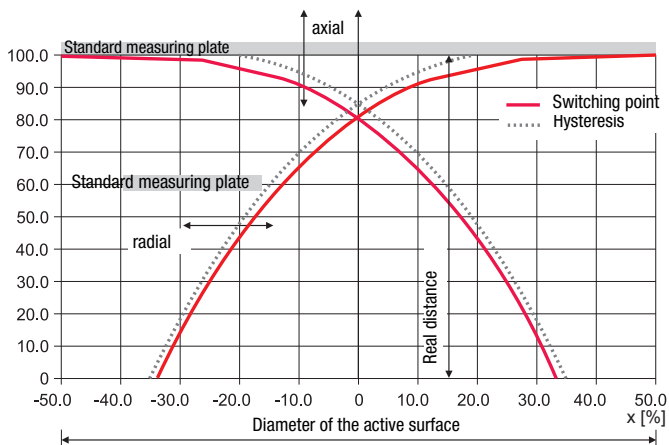
Housing	PA
Standard measuring plate	12 x 12 mm <sup>2</sup> , Fe360
Active surface	PA
Weight (M8 plug/cable)	approx. 18g/108g
Connection type	M8 connector, cable: 2m, PVC, 4 x 0.5mm <sup>2</sup> , $\varnothing$ 5.2mm

### Environmental data

Ambient temperature	-25°C ... +70°C	
Protection class	IP 67	
Protective circuit <sup>3)</sup>	1, 2	
Standards applied	IEC/EN 60947-5-2	Air 8kV (ESD)
Electromagnetic compatibility	IEC 61000-4-2	10V/m (RFI)
	IEC 61000-4-3	2kV (Burst)
	IEC 61000-4-4	

- 1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
- 2) For  $U_B$  ambient temperature  $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
- 3) 1=polarity reversal protection, 2=short-circuit protection, for all outputs

## Typical approach curve:



## Order guide

The sensors listed here are preferred types; current information at [www.leuze.com](http://www.leuze.com).

$S_n = 4.0$ mm	Designation	Part no.
	IS 240 PP/4NO-4E0-S8.3	50117797
	IS 240 PP/44-4E0	50114207
	IS 240 PP/44-4E0-S8.4	50114208
	IS 240 PP/22-4E0	50114203
	IS 240 PP/22-4E0-S8.4	50114204

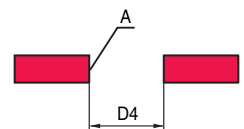
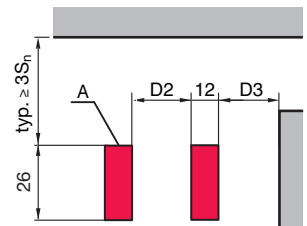
## Tables

Reduction factors:  
for  $S_n = 20.0$ mm

Steel Fe360	1
Copper	0.45
Aluminum	0.40
Brass	0.55
Stainless steel	0.80

## Mounting

### Embedded installation:



A: active surface

Ferromagnetic and non-ferromagnetic materials				
$S_n$ [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]
4.0	-	0	0	20

## Remarks

- **Approved purpose:**  
The inductive switches are electronic sensors for the inductive, contactless detection of objects. This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.