



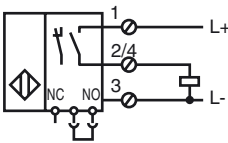
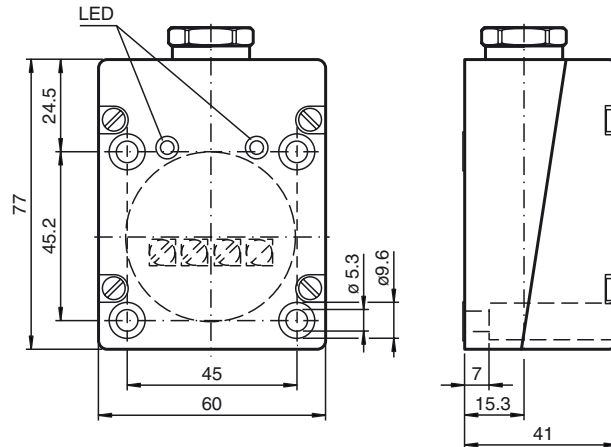
CE

**Model Number**

NBN30-FPS-E5

**Features**

- 30 mm not embeddable
- 3-wire DC

**Connection****Dimensions****Technical Data****General specifications**

Switching element function		1 switch output E5, PNP NO/NC, programmable
Rated operating distance	$s_n$	30 mm
Installation		not embeddable
Output polarity		DC
Assured operating distance	$s_a$	0 ... 24.3 mm
Actuating element		structural steel, e. g. 1.0037, SR235JR (formerly St37-2) 90 mm x 90 mm x 1 mm
Reduction factor $r_{Al}$		0.2
Reduction factor $r_{Cu}$		0.1
Reduction factor $r_{304}$		0.5
Reduction factor $r_{Brass}$		0.2

**Nominal ratings**

<b>Installation conditions</b>		
B		90 mm
C		90 mm
F		210 mm
Operating voltage	$U_B$	10 ... 65 V DC
Switching frequency	f	0 ... 50 Hz
Hysteresis	H	0.05 ... 7.26 mm
Reverse polarity protected		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	$U_d$	$\leq 2.5$ V
Repeat accuracy		0.75 mm
Operating current	$I_L$	0 ... 300 mA
Off-state current	$I_r$	$\leq 0.01$ mA
No-load supply current	$I_0$	typ. 20 mA
Operating voltage display		LED, green
Indication of the switching state		LED, yellow

**Functional safety related parameters**

Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %

**Ambient conditions**

Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

**Mechanical specifications**

Connection type		screw terminals
Core cross-section		up to 2.5 mm <sup>2</sup>
Housing material		PBT
Sensing face		PBT
Housing base		PBT
Protection degree		IP65
Mass		445 g

**General information**

Supplementary information		switch output terminal N.C.: terminal 2 N.O.: terminal 4
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**Compliance with standards and directives**

<b>Standard conformity</b>		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007

**Installation hint**

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.

