



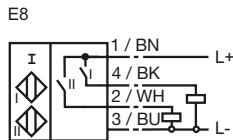
Model Number

NBN3-F25F-E8-V1-3D-Y180449

Features

- Satisfies machinery directive

Connection



Dimensions



Technical Data

General specifications

Switching element function	PNP	Dual NO
Rated operating distance	s_n	3 mm
Installation		flush mountable
Output polarity		DC
Assured operating distance	s_a	0 ... 2.43 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{V2A}		1
Reduction factor r_{St37}		1.1

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protected		all connections
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 25 mA
Operating voltage display		LED, green
Indication of the switching state		LED, yellow

Standard conformity

EMC in accordance with	IEC / EN 60947-5-2:2004
Standards	IEC / EN 60947-5-2:2004

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Housing material	PBT
Sensing face	PBT
Protection degree	IP67
Note	Mounted on mechanical drive

General information

Use in the hazardous area	see instruction manuals
Category	3D

ATEX 3D

<p>Instruction</p> <p>Device category 3D</p> <p>Directive conformity</p> <p>Standard conformity</p> <p>CE symbol</p> <p>Ex-identification</p> <p>General</p> <p>Installation, Commissioning</p> <p>Maintenance</p> <p>Special conditions</p> <p>Maximum operating current I_L</p> <p>Maximum operating voltage U_{Bmax}</p> <p>Maximum heating (Temperature rise)</p> <p>at $U_{Bmax}=30\text{ V}$, $I_L=200\text{ mA}$</p> <p>at $U_{Bmax}=30\text{ V}$, $I_L=100\text{ mA}$</p> <p>at $U_{Bmax}=30\text{ V}$, $I_L=50\text{ mA}$</p> <p>at $U_{Bmax}=30\text{ V}$, $I_L=25\text{ mA}$</p> <p>Plug connector</p> <p>Protection from mechanical danger</p>	<p>Manual electrical apparatus for hazardous areas</p> <p>for use in hazardous areas with non-conducting combustible dust</p> <p>94/9/EG</p> <p>EN 50281-1-1</p> <p>Protection via housing</p> <p>Use is restricted to the following stated conditions</p> <p>CE</p> <p>Ex II 3D IP67 T 124 °C (255.2 °F) X</p> <p>The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The data stated in the data sheet are restricted by this operating instruction! The special conditions must be adhered to!</p> <p>Laws and/or regulations and standards governing the use or intended usage goal must be observed.</p> <p>No changes can be made to apparatus, which are operated in hazardous areas.</p> <p>Repairs to these apparatus are not possible.</p> <p>The maximum permissible load current must be restricted to the values given in the following list. High load currents and load short-circuits are not permitted.</p> <p>The maximum permissible operating voltage U_{Bmax} must be restricted to the values given in the following list. Tolerances are not permitted.</p> <p>dependant of the load current I_L and the max. operating voltage U_{Bmax}. Information can be taken from the following list. The maximum surface temperature at maximum ambient temperature is given in the Ex identification of the apparatus.</p> <p>54 K</p> <p>41 K</p> <p>37 K</p> <p>34 K</p> <p>The plug connector must not be disconnected under voltage. The proximity switch is marked as follows: "DO NOT DISCONNECT UNDER VOLTAGE!" When the plug connector is disconnected the ingress of dirt into the inner areas (i.e. the areas, which are not accessible in the plugged-in condition) must be prevented.</p> <p>The plug connection can only be separated using a tool. This is achieved by using the locking protection V1-Clip (Mounting accessory from Pepperl + Fuchs).</p> <p>The sensor must not be mechanically damaged.</p>
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