

# Proximity Sensors Inductive ABS Housing Types DJ, Ø 50, Ø 77 and EI, Ø 77

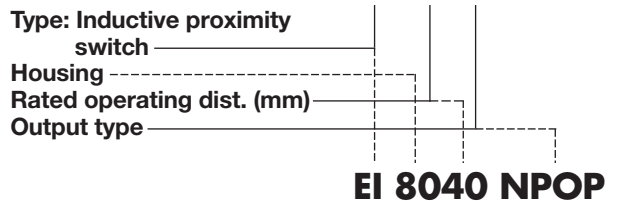


- ABS housing, Ø 50 mm, Ø 77 mm
- Sensing distance: 25 to 40 mm
- Power supply: 8.2 VDC (Namur)  
24 VDC
- Output: Namur (DIN 19234)  
Transistor NPN, make switching (DJ 25 E)  
Transistor NPN or PNP,  
make or break switching (EI 8040)
- Protection: Reverse polarity
- 2 m cable

## Product Description

Special-design proximity switch with long sensing distance, up to 40 mm. With transistor NPN, PNP or made in accordance with Namur DIN 19234. Sturdy ABS housing.

## Ordering Key DJ 25 E



## Type Selection

Housing diameter	Rated operating dist. (S <sub>n</sub> )	Ordering no. Namur	Ordering no. Transistor NPN Make switching	Ordering no. Transistor NPN Break switching	Ordering no. Transistor NPN Make switching	Ordering no. Transistor NPN Break switching
Ø 50 mm	25 mm <sup>1)</sup>	DJ 25	DJ 25 E	EI 8040 NPCP	EI 8040 PPOP	EI 8040 PPCP
Ø 77 mm	40 mm <sup>1)</sup>	DJ 40	EI 8040 NPOP			

<sup>1)</sup>For non-flush mounting in metal

## Specifications

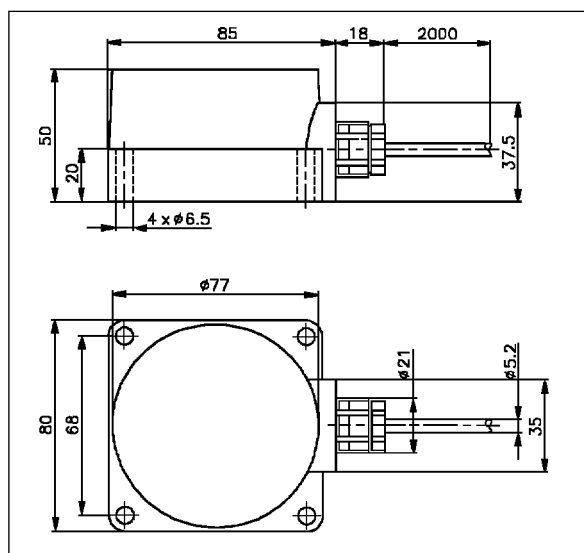
	Namur	Transistor NPN/PNP
Rated operational volt. (U <sub>a</sub> ) (U <sub>B</sub> )	8.2 VDC 7 to 9 VDC (6 to 35 VDC, all specifications not observed in extended supply range)	24 VDC DJ 25 E 21.6 to 26.4 VDC (ripple included) EI 8040 10 to 40 VDC (ripple included)
Self-inductance	≤ 500 µH	
Self-capacitance	≤ 120 nF	
Ripple		max. 10%
Rated operational current (I <sub>a</sub> )		≤ 200 mA
No-load supply current (I <sub>o</sub> )	Activated: ≤ 1 mA Not activated: ≥ 2.8 mA Max.: 9.35 mA	DJ 25 E ≤ 15 mA (output ON and OFF) EI 8040 ≤ 7 mA (output ON) ≤ 3 mA (output OFF)
Voltage drop (U <sub>d</sub> )		DJ 25 E ≤ 1.5 VDC (at max. load) EI 8040 ≤ 2 VDC (at max. load)
Protection	Reverse polarity	DJ 25 E reverse polarity EI 8040 short-circuit, reverse polarity, transients
Transient voltage	≤ 1 kV/0.5 J (prepared)	≤ 1 kV/0.5 J (prepared)
Power ON delay		DJ 25 E none EI 8040 typ. 5 ms
Frequency of operating cycles (f)	DJ 25 250 Hz DJ 40 100 Hz	DJ 25 E 200 Hz EI 8040 70 Hz



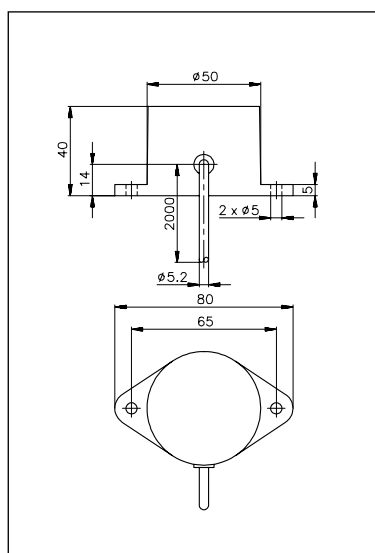
## Specifications (cont.)

	Namur	Transistor NPN/PNP
Indication for output ON		<b>DJ 25 E</b> none <b>EI 8040</b> LED, yellow
Assured operating dist. (S <sub>a</sub> )	<b>DJ 25</b> 0 to 18 mm <b>DJ 40</b> 0 to 28 mm	<b>DJ 25 E</b> 0 to 18 mm <b>EI 8040</b> 0 to 32 mm
Repeat accuracy (R)	≤ 10%	<b>DJ 25 E</b> ≤ 10% <b>EI 8040</b> ≤ 5%
<b>Hysteresis (H)</b>		
(Differential travel)	Dependent on amplifier relay	1 to 15% of sensing distance
Effective operating dist. (S <sub>r</sub> )	0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub>	0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub>
Usable operating dist. (S <sub>u</sub> )	0.8 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.2 x S <sub>r</sub>	<b>DJ 25 E</b> 0.8 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.2 x S <sub>r</sub> <b>EI 8040</b> 0.9 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.1 x S <sub>r</sub>
<b>Ambient temperature</b>		
Operating	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)
Storage	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)	IP 67 (Nema 1, 3, 4, 6, 13)
Housing material	Blue ABS	<b>DJ 25 E</b> ABS, blue <b>EI 8040</b> ABS, grey
Cable	2 m, 2 x 0.50 mm <sup>2</sup> grey PVC, oil proof	2 m, 3 x 0.25 mm <sup>2</sup> grey PVC, oil proof
Weight (cable included)	<b>DJ 25</b> 220 g <b>DJ 40</b> 500 g	<b>DJ 25 E</b> 220 g <b>EI 8040</b> 500 g
Approvals		<b>EI 8040</b> CE

## Dimensions



DJ 40/EI 8040



DJ 25 .

## Wiring Diagrams

Refer to "Wiring Diagrams", Technical Information.

## Installation Hints

Refer to "Installation Hints", Technical Information.

## Power Supplies

Power supplies VAC: > SS 110.  
Power supplies VDC: > SS 130/140

## Namur, Amplifier Relays

> SD 110/210. Refer to Technical Information.  
> SD 170/270.