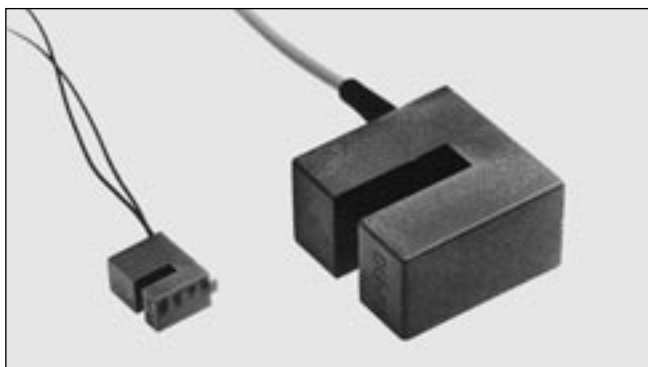


Proximity Sensors Inductive ABS Housing Type DU, Fork-shaped

CARLO GAVAZZI



- Fork-shaped ABS housing
- Slot sizes: 3.5, 5, 6, 10 mm
- Power supply: 8.2 VDC (NAMUR)
24 VDC
- Output: NAMUR (DIN 19234)
Transistor NPN, make switching
- Protection: Reverse polarity
- 2 m cable

Product Description

Special fork-shaped proximity switch. Slot sizes 3.5, 5.6 or 10 mm. With transistor NPN or made in accordance with NAMUR DIN 19234. Sturdy ABS housing.

Ordering Key

DU 10 E

Type _____
Slot size _____
Output type _____

Type Selection

Slot size mm	Ordering no. NAMUR	Ordering no. Transistor NPN Make switching
3.5	DU 3.5	
5	DU 5	
6	DU 6	DU 6 E
10	DU 10	DU 10 E

Specifications

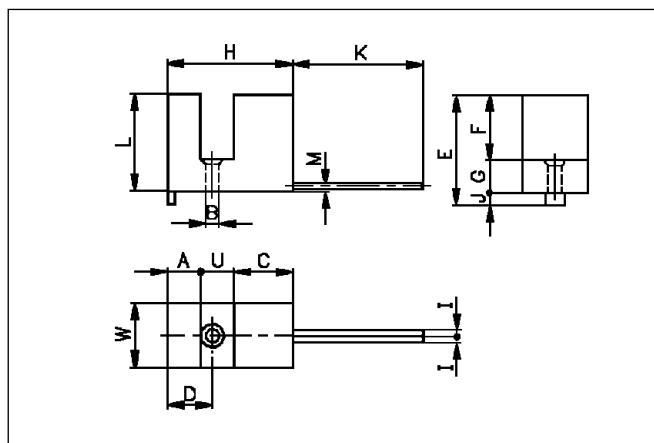
	NAMUR	Transistor NPN
Rated operational volt. (U_e) (U_B)	8.2 VDC 7 to 9 VDC (6 to 35 VDC, all specifications not observed in extended supply range)	24 VDC 21.6 to 26.4 VDC (ripple incl.)
Self-inductance	$\leq 500 \mu H$	-
Self-capacitance	$\leq 120 nF$	-
Ripple	-	$\leq 10\%$
Rated operational current (I_e)	-	$\leq 200 mA$
No-load supply current (I_o)	Activated: $\leq 1 mA$ Not activated: $\geq 3 mA$ Max.: 9.35 mA	$\leq 15 mA$
Voltage drop (U_d)	-	DU 6 E $\leq 2.0 V$ at max. load DU 10 E $\leq 1.0 V$ at max. load
Protection	None	Reverse polarity
Transient voltage	$\leq 1 kV/0.5 J$ (prepared)	$\leq 1 kV/0.5 J$ (prepared)
Power ON delay	None	None
Frequency of operating cycles (f)	DU 3.5 2000 Hz DU 5 1500 Hz	DU 6 E 2000 Hz DU 10 E 1000 Hz
Size of test object (height x length x width)	DU 3.5 10 x 10 x 0.5 mm DU 5 10 x 10 x 0.5 mm DU 6 16 x 16 x 1 mm DU 10 16 x 20 x 1 mm	DU 6 E 16 x 16 x 1 mm DU 10 E 16 x 20 x 1 mm

Specifications (cont.)

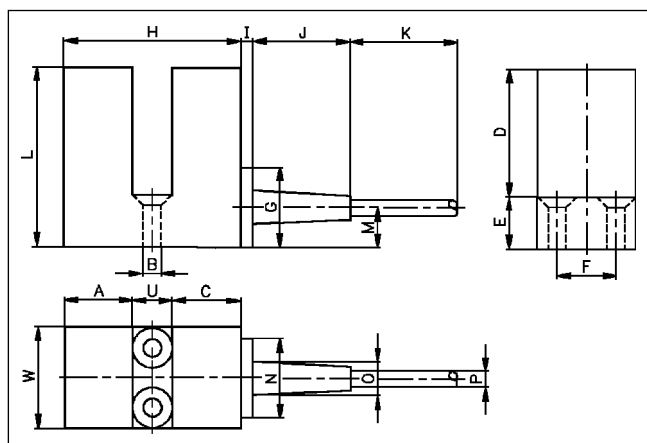
	NAMUR	Transistor NPN
Repeat accuracy (R)	≤ 10%	≤ 10%
Effective operating dist. (S _r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$
Usable operating dist. (S _u)	$0.8 \times S_r \leq S_u \leq 1.2 \times S_r$	$0.8 \times S_r \leq S_u \leq 1.2 \times S_r$
Ambient temperature		
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	Blue ABS
Cable	DU 3.5 2 m, 2 x 0.1 mm ² (2 wires) DU 5 2 m, 2 x 0.1 mm ² (2 wires) DU 6 2 m, 2 x 0.25 mm ² DU 10 2 m, 2 x 0.25 mm ² grey PVC, oil proof	DU 6 E 2 m, 3 x 0.25 mm ² DU 10 E 2 m, 3 x 0.25 mm ² grey PVC, oil proof
Weight (cable included)	DU 3.5 17 g DU 6 72 g DU 5 17 g DU 10 116 g	DU 6 E 72 g DU 10 E 116 g
CE-marking	Yes	-

Dimensions

Type	U mm	L mm	H mm	W mm	A mm	B Ø mm	C mm	D mm	E mm	F mm	G mm	I mm	J mm	K mm	M mm	N mm	O Ø mm	P Ø mm
DU 3.5	3.5	15	19.2	10.2	5	2	10.5	6.85	17	10	5	Ø 1.1	2	2000	1			
DU 5	5	15	19.2	10.2	5	2	9	6.85	17	10	5	Ø 1.1	2	2000	1			
DU 6	6	30	26.8	16.4	10	2.3	10.1	20	10	11	15.25	2.2	17	2000	9	12.5	6.5	4.2
DU 10	10	45	44.5	25.6	17	4.5	17	32	13	15	20	2.95	24	2000	10	20	8.5	4.1

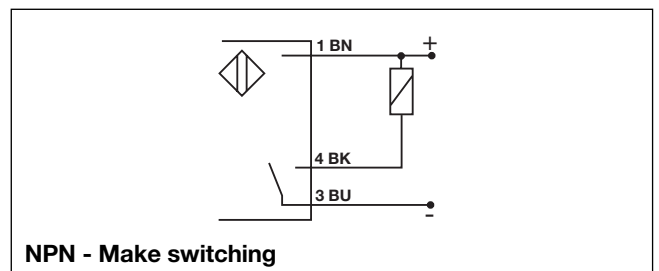
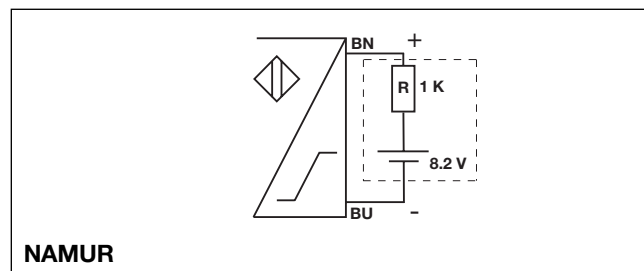


DU 3.5 - DU 5



DU 6 - DU 10

Wiring Diagrams



Installation Hints

To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables	Relief of cable strain The cable should not be pulled	Protection of the sensing face A proximity switch should not serve as mechanical stop	Switch mounted on mobile carrier Any repetitive flexing of the cable should be avoided
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Power Supplies

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

NAMUR, Amplifier Relay

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