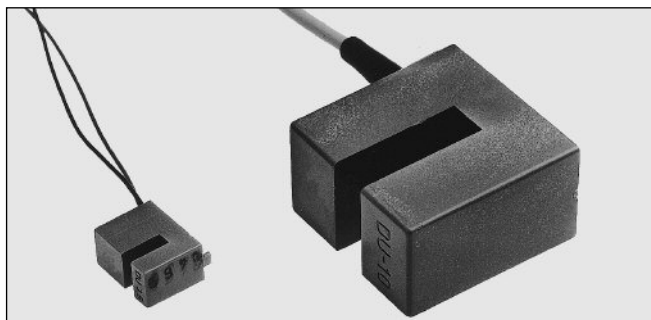


Proximity Sensors Inductive ABS Housing Type DU, Fork-shaped

CARLO GAVAZZI



- Fork-shaped ABS housing
- Slot sizes: 3.5, 5, 6, 10 mm
- Power supply: 8.2 VDC (NAMUR)
24 VDC (NPN)
- Output: NAMUR (DIN 19234)
Transistor NPN, normally open
- Protection: Reverse polarity (NPN version)
- 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 Normally open
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	≤ 500 μH	-
Self-capacitance	≤ 120 nF	-
Ripple	-	≤ 10%
Rated operational current (I_e)	-	≤ 200 mA
No-load supply current (I_o)	Activated: ≤ 1 mA Not activated: ≥ 3 mA Max.: 9.35 mA	≤ 15 mA
Voltage drop (U_d)	-	DU 6 E ≤ 2.0 V at max. load DU 10 E ≤ 1.0 V at max. load
Protection	None	Reverse polarity
Transient voltage	≤ 1 kV/0.5 J	≤ 1 kV/0.5 J
Power ON delay	None	None
Frequency of operating cycles (f)	DU 3.5 2000 Hz DU 5 1500 Hz	DU 6 2000 Hz DU 10 1000 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

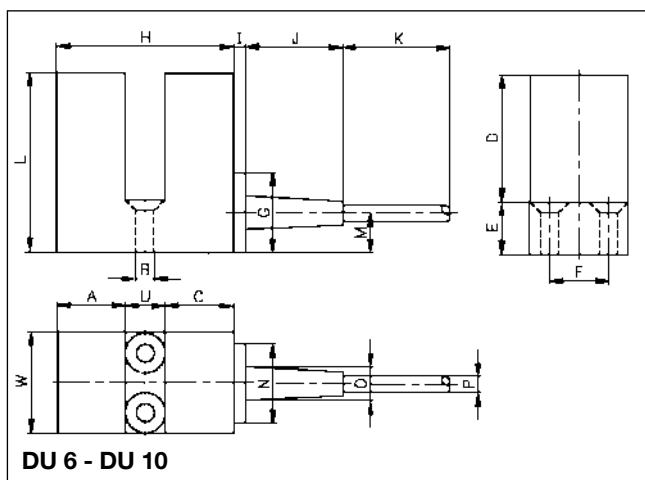
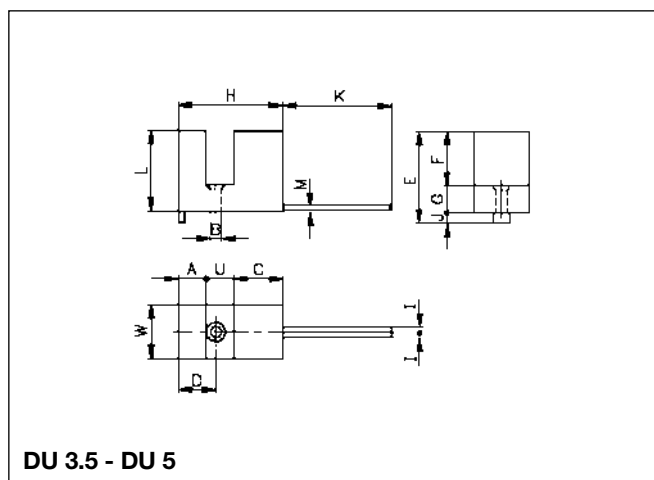


Specifications (cont.)

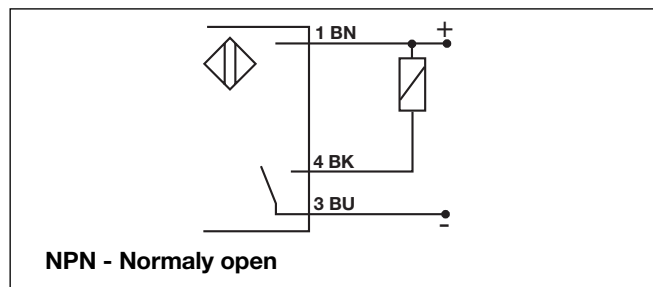
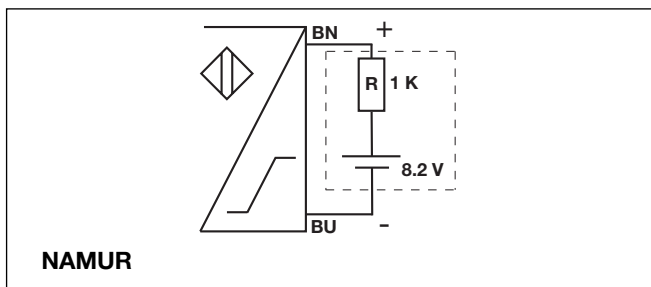
	NAMUR	Transistor NPN
Repeat accuracy (R)	≤ 10%	≤ 10%
Effective operating dist. (S _r)	0.9 x S _n ≤ S _r ≤ 1.1 x S _n	0.9 x S _n ≤ S _r ≤ 1.1 x S _n
Usable operating dist. (S _u)	0.8 x S _r ≤ S _u ≤ 1.2 x S _r	0.8 x S _r ≤ S _u ≤ 1.2 x S _r
Ambient temperature		
Operating	-20° to +60°C (-4° to +140°F)	-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	Yes

Dimensions

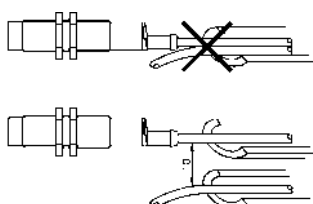
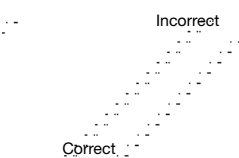
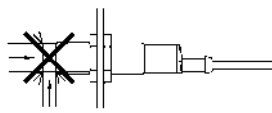
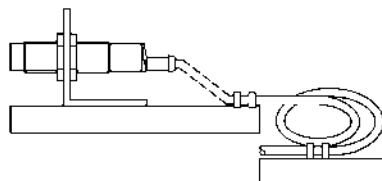
Type	U mm	L mm	H mm	W mm	A mm	B Ø mm	C mm	D mm	E mm	F mm	G mm	I mm	J mm	K mm	M mm	N mm	O Ø mm	P Ø mm
DU 3.5	3.5	15	19.2	10.2	5	2	10.5	6.85	17	10	5	Ø 1.1	2	2000	1			
DU 5	5	15	19.2	10.2	5	2	9	6.85	17	10	5	Ø 1.1	2	2000	1			
DU 6	6	30	26.8	16.4	10	2.3	10.1	20	10	11	15.25	2.2	17	2000	9	12.5	6.5	4.2
DU 10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



Wiring Diagrams



Installation Hints

<p>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</p> 	<p>Relief of cable strain</p>  <p>The cable should not be pulled</p>	<p>Protection of the sensing face</p>  <p>A proximity switch should not serve as mechanical stop</p>	<p>Switch mounted on mobile carrier</p>  <p>Any repetitive flexing of the cable should be avoided</p>
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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.