Proximity Sensors Capacitive Thermoplastic Polyester Housing Type EC, M30, DC

TRIPLESHIELD™

CARLO GAVAZZI

- Featuring *TRIPLESHIELD*™ Sensor protection
- Rated operational voltage: 10-40 VDC
- Adjustable sensing distance 2-16 mm or 4-25 mm
- Output: DC 200 mA, NPN or PNP
- Make and break switching function
- LED indication
- High noise immunity
- Flush and non-flush types
- Plug and Cable versions available
- AC versions in the same housing

Product Description

Capacitive proximity switches with either sensing distance 16 mm flush mounted in metal or sensing distance 25 mm non-flush mounted. 4-wire DC output with both make (NO) and break (NC) switching. Grey M30 polyester housing with 2 m PVC cable or plug. Ideal for use in level and plastic machinery applications.

Ordering Key   **EC 3025 NPA P L-1**

Capacitive proximity switch ⌐
Housing diameter (mm) ────────
Rated operating dist. (mm) ───────
Output type ──────────
Housing material ──────────
Housing type ──────────
Connection type ──────────
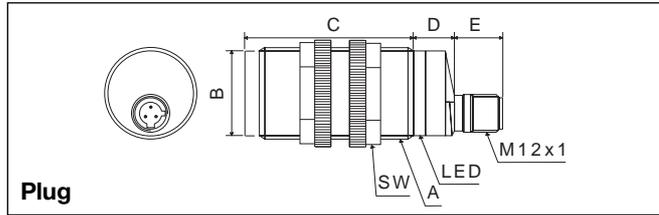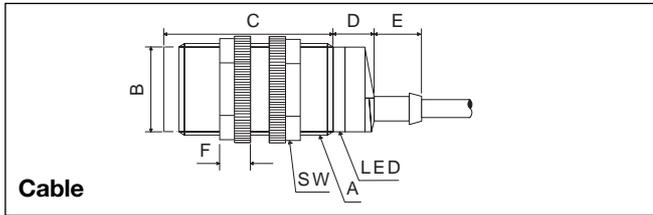
Type Selection

Housing diameter	Rated operating dist. (S$_n$) [1]	Mounting	Ordering no. Transistor NPN/cable Make & break switching	Ordering no. Transistor NPN/plug Make & break switching	Ordering no. Transistor PNP/cable Make & break switching	Ordering no. Transistor PNP/plug Make & break switching
M30	16 mm	Flush (built-in)	EC 3016 NPAPL	EC 3016 NPAPL-1	EC 3016 PPAPL	EC 3016 PPAPL-1
M30	25 mm	Non-flush	EC 3025 NPAPL	EC 3025 NPAPL-1	EC 3025 PPAPL	EC 3025 PPAPL-1

[1] Object: Grounded steel plate

Specifications

Rated operating dist. (S$_n$) 3016:	2 to 16 mm factory set at 16 mm
3025:	4 to 25 mm factory set at 25 mm
Sensitivity	Adj. multiturn pot.meter
Effective operating dist. (S$_r$)	$0.9 \times S_n \leq S_r \leq 1.1 \times S$
Usable operating dist. (S$_u$)	$0.8 \times S_r \leq S_n > 1.2 \times S_r$
Repeat accuracy (R)	$\leq 5\%$
Hysteresis (H)	3 to 20% of sensing distance
Rated operational volt. (U$_B$)	10 to 40 VDC (ripple included)
Ripple	$\leq 10\%$
Rated operational current (I$_e$) Continuous	≤ 200 mA
No-load supply current (I$_o$)	≤ 10 mA (no load)
Voltage drop (U$_d$)	≤ 2.5 VDC at max. load
Protection	Reverse polarity, short-circuit, transients

Frequency of operating cycles (f)	50 Hz
Indication for output ON	LED, yellow
Environment Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Temperature Operating temperature Storage temperature	-25 to +80°C (-13 to +176°F) -40 to +85°C (-40 to +185°F)
Housing material Body Cable end Nuts	Grey thermoplastic polyester Polyester Black reinforced nylon
Connection Cable	Grey, 2 m, 4 x 0.34 mm^2 Oil proof, PVC
Plug (-1) Cable for plug (-1)	M12 x 1 CON.1A-series
Weight (incl. nuts)	**3016:** 140 g **3025:** 150 g
Approvals	UL, CSA
CE-marking	Yes

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Dimensions

Cable

Plug

Type	A	B Ø mm	C mm	D mm	E mm	F mm	SW mm
EC 3016xPAPL(-1)	M 30 x 1.5 x 50	28	50	13.6	15.4	10	36
EC 3025xPAPL(-1)	M 30 x 1.5 x 50	28	62	13.6	15.4	10	36