

Photoelectrics Diffuse-reflective Type PA18CLD0.T, AC, PBTP-housing

CARLO GAVAZZI



- Range: 400 mm adjustable
100, 200 or 400 mm fixed
- Modulated, infrared light
- Supply voltage: 20 to 250 VAC
- Output: 500 mA SCR
- Make or break switching function, LED indication
- High immunity to ambient light
- Cable and plug versions



Product Description

The PA18CLD.. is a family of inexpensive general purpose Diffuse-reflective sensors in industrial standard 18 mm cylindrical PBTP housing. They are useful for simple applications where a basic sensor provides adequate sensing performance. The sensors are simple to use and no adjustment are necessary (except 400 mm dif-fuse adjustable type). The output is a 2-wire NO or NC thyristor (SCR) output.

Ordering Key

PA18CLD04TCM6SA

Type	_____
Housing style	_____
Housing size	_____
Housing material	_____
Housing length	_____
Detection principle	_____
Sensing distance	_____
Output type	_____
Output configuration	_____
Connection type	_____
Adjustable	_____

Type Selection

Housing	Rated	Ordering no.	Ordering no.	Ordering no.	Ordering no.
diameter	operating dist. (S _n)	SCR/Cable Make switching	SCR/Plug Make switching	SCR/Cable Break switching	SCR/Plug Break switching
M 18	100 mm fixed	PA18CLD01TO	PA18CLD01TOM6	PA18CLD01TC	PA18CLD01TCM6
M 18	200 mm fixed	PA18CLD02TO	PA18CLD02TOM6	PA18CLD02TC	PA18CLD02TCM6
M 18	400 mm fixed	PA18CLD04TO	PA18CLD04TOM6	PA18CLD04TC	PA18CLD04TCM6
M 18	400 mm adjust.	PA18CLD04TOSA	PA18CLD04TOM6SA	PA18CLD04TCSA	PA18CLD04TCM6SA

Note: Plugs to be ordered separately

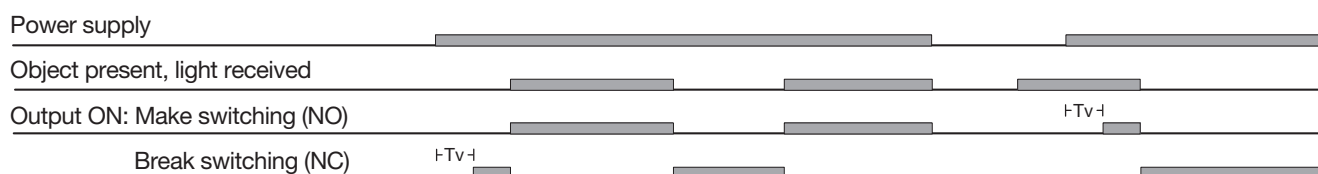
Specifications

Rated operating dist. (S_n) Adjustable Fixed	Up to 400 mm 100, 200 or 400 mm Reference target: Kodak test card R27, white, 90% reflectivity 100 x 100 mm 200 x 200 mm	Min. operational current (I_m)	10 mA
Size: S _n < 400 mm S _n ≥ 400 mm		OFF-state current (I_f)	Max < 5 mA, typ. 2.6 mA
Sensitivity Adjustable type only	270° turn potentiometer,	Voltage drop (U_d)	Max ≤ 10 V, typ. 7 VAC
Temperature drift	0.4%/K	Protection	Transients
Hysteresis (H) (Differential travel)	3 to 20%,	Transient voltage	Max 1 kV/0,5 J
Rated operational volt. (U_B)	20 to 250 VAC, 45 to 65 Hz	Light source Light type	GaAlAs LED, 880 nm Infrared, modulated synchronized ± 25° at 1/2 range Max 10'000 lux
Output current (AC12, AC140) Continuous (I _a) Short-time (I)	≤ 500 mA ≤ 3 A, max. 20 ms	Sensing angle Ambient light	
		Operating frequency (f)	20 Hz, light/dark ratio 1:2
		Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 20 ms ≤ 30 ms
		Power ON delay (t_v)	Typ. 100 ms
		Indication function Output ON	Dark (NC) or light (NO) switching LED, yellow

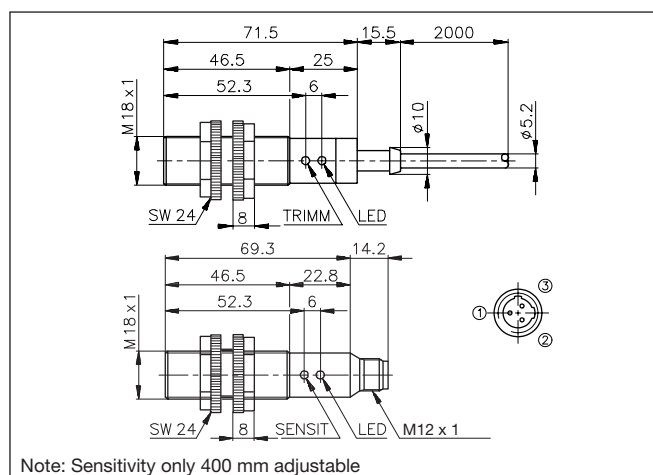
Specifications (cont.)

Environment		Housing material	
Overvoltage category	III (IEC 60664/60664A; 60947-1)	Body	PBTP, grey thermoplastic polyester
Pollution degree	3 (IEC 60664/60664A; 60947-1)	Front	Luran®, black
Degree of protection	IP 67 (IEC 60529; 60947-1)	Cable end	Polyester, black
Temperature		Nuts	Reinforced nylon
Operating	-20° to +60°C (-4° to 140°F)	Connection	
Storage	-30° to + 70°C (-22° to 158°F)	Cable	Grey, 2 m, 2 x 0.5 mm², oilproof PVC,
Vibration	10 to 150 Hz, 0.5 mm/-7.5 g (IEC 60068-2-6)	Plug	M12 x 1
Shock	2 x 1 m 100 x 0.5 m (IEC 60068-2-32)	Cables for plug (M6)	CON.6A-.. series
Dielectric voltage	1600 VAC (IEC 60364-4-41)	Weight	
		Cable version	105 g
		Plug version	22 g
		Approvals	UL, CSA
		CE-marking	Yes

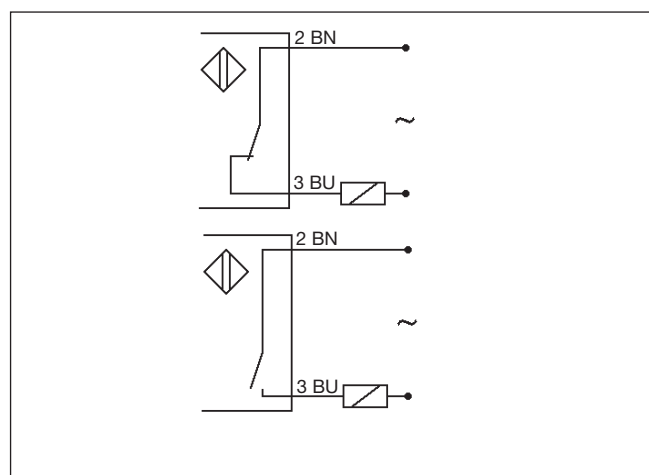
Operation Diagram



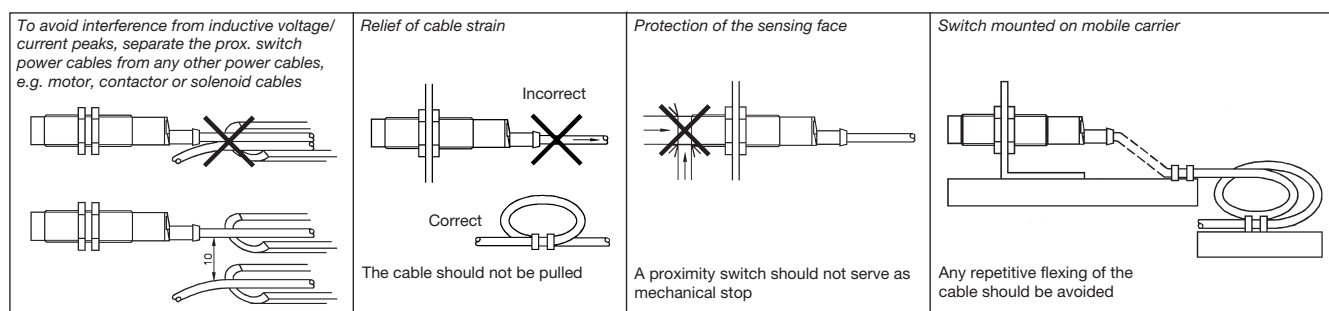
Dimensions



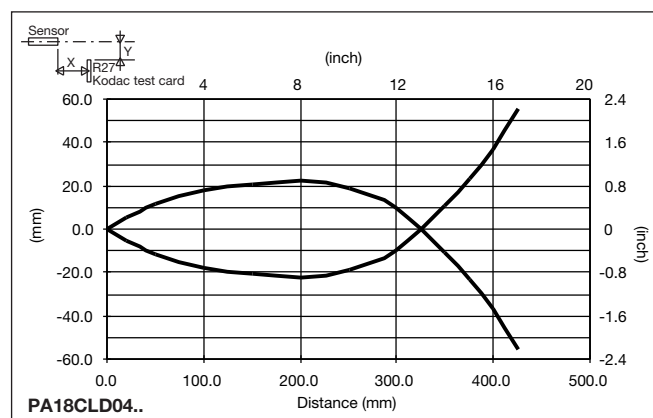
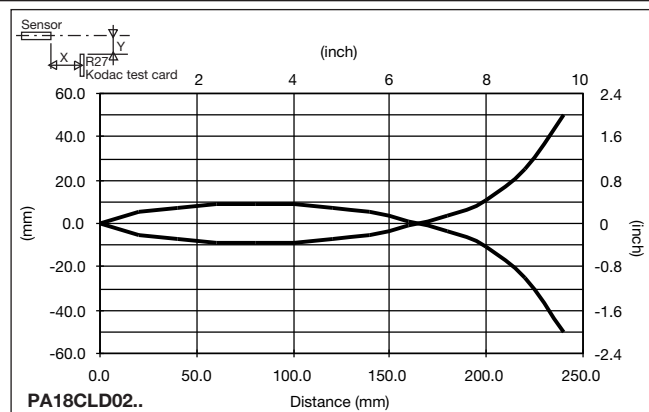
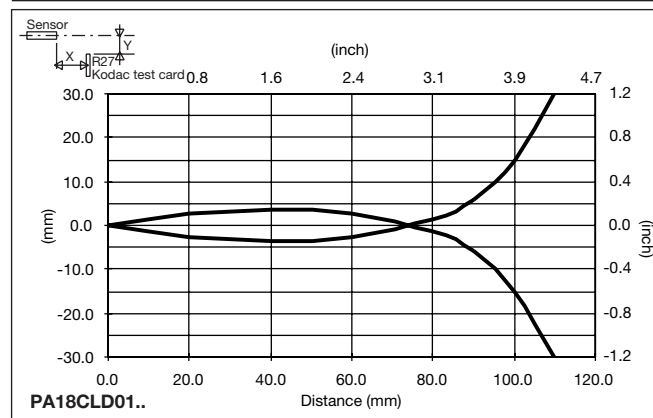
Wiring Diagrams



Installation Hints



Detection Diagrams



Delivery Contents

- Photoelectric switch: PA18CLD04T
- 2 nuts
- **Packaging:** plastic bag

Accessories

- Fibre optics
- Connector type CON.6A-.. series.
- Screw driver for adjustments: 77-000
- MB18A
- APA18-RAR