

**Description**

- Operation mode and max sensing range:  
Diffuse proximity: 0,1-1 m
- Cable or plug connection
- Sensitivity adjustment via potentiometer
- Switch selectable light or dark function
- Power and output indicators
- High tolerance to hostile environments
- 10-30 V dc or 20-250 V ac supply voltage
- 3 wire, NPN or PNP transistor output or 2 wire, SCR output
- Test input



The long range SMP 8000 series consists of a self-contained diffuse proximity sensor with a 1 metre sensing range. The series is offered with sensitivity adjustment via integral potentiometer available with either cable or plug connection.


The complete series is available either as 3 wire, NPN or PNP transistor output with a 10-30 V dc supply voltage, or as a 2 wire, SCR output

with a 20-250 V ac supply voltage. Both include a switch selectable light or dark function.

The dc version is protected against reverse polarity of power supplies, control input and output signals. The output is protected against short circuit and inductive loads.

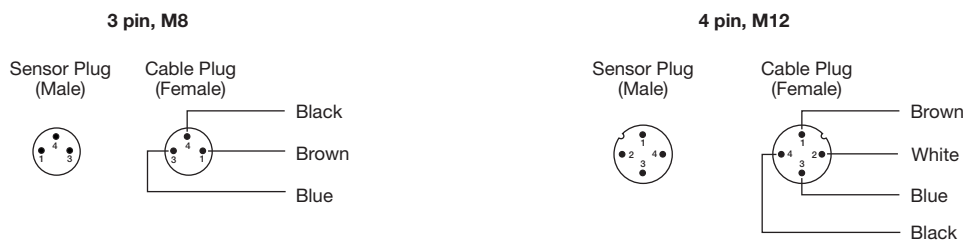
**Technical Data**

		SMP
Supply voltage	ac	20-250 V ac
	dc	10-30 V dc
Voltage ripple		15 %
Reverse polarity protected	dc	Yes
Short circuit protected	dc	Yes
Current consumption	ac	2 mA
	dc	14 mA
Maximum output load	ac	200 mA
	dc	120 mA @ 30 V dc
Maximum residual voltage	ac	8 V
	dc	1,5 V
Max. operation frequency	ac	20 Hz
	dc	250 Hz
Response time t <sub>ON</sub> / t <sub>OFF</sub>	ac	25 ms / 25 ms
	dc	2 ms / 2 ms
Power on indicator		Green LED
Output indicator		Yellow LED
Hysteresis		Approx. 5-15 %
Light source		Infrared (880 nm)
Opening angle		+/- 4°
Emission angle		-
Housing material	Sensor housing	Stainless Steel (AISI 316 / 1.4401) or Polycarbonate
	Front lens	Polycarbonate
Cable, PVC	ac	Ø 5,2 mm, 2 x 0,25 mm <sup>2</sup>
	dc	Ø 4,0 mm, 3 x 0,14 mm <sup>2</sup>

Environmental Data		
		SMP
Vibration		10-55 Hz, 0,5 mm
Shock		30 g
Light immunity	@ 15° incidence	> 40 000 lux
Temperature, operation		-20 to +60 °C
Temperature, storage		-40 to +80 °C
Sealing class	ac	IP 60
	dc	IP 67
Approvals	ac	CE 
	dc	CE

Available Types										
Diffuse Proximity	Type	Power Supply	Control Feature	Output	Connection		5 m cable	3 pin, M8 plug	4 pin, M12 plug	Range
					Housing Material	Housing Type	Order Reference			
	8401	8401	10-30 V dc	Sensitivity pot. and light/dark switch	NPN	Polycarbonate	M18 x 1	SMP 8401 PG 5	SMP 8401 PG T3	SMP 8401 PG J
Stainless Steel						SMP 8401 MG 5		SMP 8401 MG T3	SMP 8401 MG J	
8501		20-250 V ac	SCR	Polycarbonate	SMP 8501 PG 5	SMP 8501 PG T3		SMP 8501 PG J		
				Stainless Steel	SMP 8501 MG 5	SMP 8501 MG T3		SMP 8501 MG J		
8801				Polycarbonate	SMP 8801 PG 5	-		-		
				Stainless Steel	SMP 8801 MG 5	-		-		

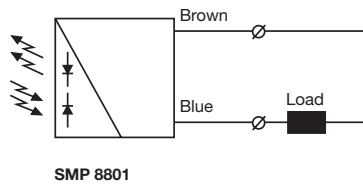
Connections			
	Cable	M8 Plug / Cable	M12 Plug / Cable
AC supply	Blue & Brown	-	-
Supply +	Brown	Pin 1 / Brown	Pin 1 / Brown
Supply -	Blue	Pin 3 / Blue	Pin 3 / Blue
Output	Black	Pin 4 / Black	Pin 4 / Black



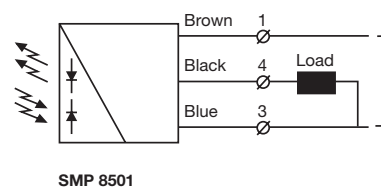
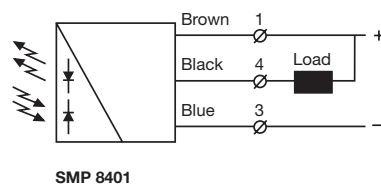
Refer to page 161 for extension cables

Wiring Diagrams

AC Models

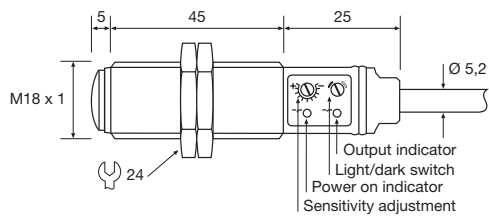


DC Models

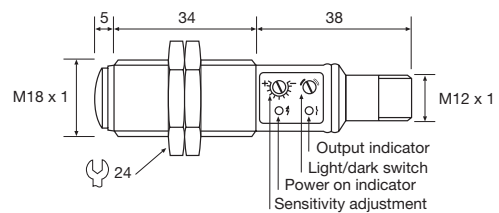
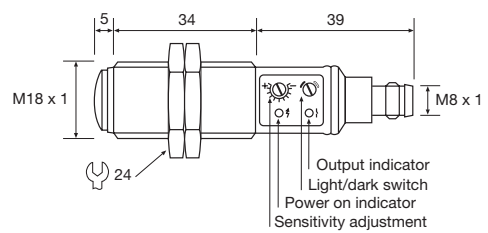
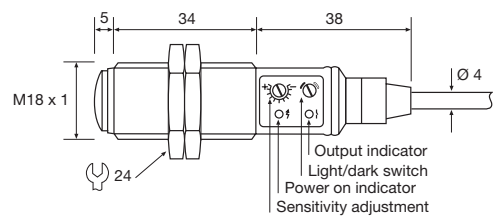


Dimensions and Descriptions

AC Models



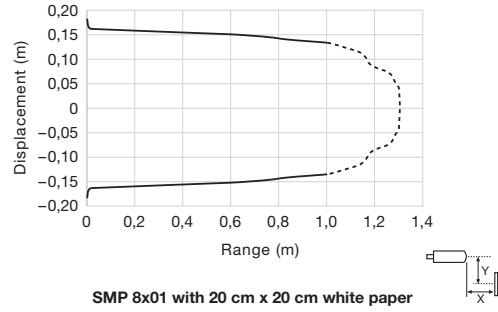
DC Models



(Units in mm)

Sensing Characteristics

Parallel Displacement



Telco reserves the right to change specifications without notice.