

Description

- Operation mode and max sensing range:
Thru beam: 1-12 m
- Cable or plug connection
- Sensitivity adjustment via control input
- Wide variety of housings
- Power and output indicator
- High tolerance to hostile environments
- 10 – 30 V dc supply voltage
- 3 wire, NPN or PNP transistor output



The 3000 series consists of a low cost self-contained transmitter SMT, and a receiver SMR, which are to be used in thru beam mode. The complete series is available in a wide range of housings with either cable or plug connection.

The SMR is supplied with a 10-30 V dc supply voltage with a 3 wire, NPN or PNP transistor output with a choice between light or dark function.

The control input in the SMT may be used for either disabling or enabling the transmitting power temporarily for test purpose, multiplexing applications or as a gradual regulation of the transmitting power level.

Both the transmitter and receiver are protected against reverse polarity of power supplies, control input and output signals. The output is also protected against short circuit and inductive loads.

Technical Data

	SMT 3000C	SMT 3012C	SMR 3X06	SMR 3X12
Supply voltage	10 – 30 V dc			
Voltage ripple	15%			
Reverse polarity protected	Yes			
Short circuit protected	-		Yes	
Power consumption	Max. 30 mA		Max. 8 mA	
Maximum output load	-		100 mA	
Maximum residual voltage	-		2,5 V	
Maximum operation frequency	-		> 125 Hz	
Response time t_{ON} / t_{OFF}	-		< 4 ms / < 6 ms	
Power on indicator	Green LED		-	
Output indicator	-		Yellow LED	
Hysteresis	-		Approx. 25 %	
Transmitter diode	Ga Al As (880 nm)		-	
Opening angle	-		+/- 10°	+/- 8°
Emission angle	+/- 11°	+/- 5°	-	

Environmental Data

Vibration	10 – 55 Hz, 0,5 mm		
Shock	30 g		
Light immunity, @ 5° incidence	-	35 000 lux	12 000 lux
Temperature, operation	- 20 to +50 °C		
Temperature, storage	- 40 to +80 °C		
Sealing class	IP 67		
Approvals	CE		

Available Types									
	Type	Control Feature	Output	Connection		5 m Cable	3 pin, M8 Plug	4 pin, M12 Plug	Range
				Housing Material	Housing Size				
Transmitter	3000C	Adjustable range and test input		Polycarbonate	Ø10	SMT 3000C AP 5	SMT 3000C AP T3	-	1-6 metres
					M12 x 1	SMT 3000C TP 5	SMT 3000C TP T3	-	
				Nickel Plated Brass			SMT 3000C TB 5	SMT 3000C TB T3	
				ABS	Ø12,7 (Snap Housing)	SMT 3000C S 5*	-	-	

Transmitter	3012C	Adjustable range and test input		Polycarbonate	Ø10	SMT 3012C AP 5	SMT 3012C AP T3	-	1-12 metres
					M12 x 1	SMT 3012C TP 5	SMT 3012C TP T3	-	
				Nickel Plated Brass			SMT 3012C TB 5	SMT 3012C TB T3	

Receiver	3006	NPN, NC (light operated)		Polycarbonate	Ø10	SMR 3006 AP 5	SMR 3006 AP T3	-	6 metres
					M12 x 1	SMR 3006 TP 5	SMR 3006 TP T3	-	
				Nickel Plated Brass			SMR 3006 TB 5	SMR 3006 TB T3	
	ABS	Ø12,7 (Snap Housing)	SMR 3006 S 5*	-	-				
		Polycarbonate	M12 x 1	Ø10	SMR 3106 AP 5	SMR 3106 AP T3	-		
				SMR 3106 TP 5	SMR 3106 TP T3	-			
	Nickel Plated Brass		SMR 3106 TB 5	SMR 3106 TB T3	SMR 3106 TB J				
	ABS	Ø12,7 (Snap Housing)	SMR 3106 S 5*	-	-				
		Polycarbonate	M12 x 1	Ø10	SMR 3206 AP 5	SMR 3206 AP T3	-		
				SMR 3206 TP 5	SMR 3206 TP T3	-			
	Nickel Plated Brass		SMR 3206 TB 5	SMR 3206 TB T3	SMR 3206 TB J				
	ABS	Ø12,7 (Snap Housing)	SMR 3206 S 5*	-	-				
Polycarbonate		M12 x 1	Ø10	SMR 3306 AP 5	SMR 3306 AP T3	-			
			SMR 3306 TP 5	SMR 3306 TP T3	-				
Nickel Plated Brass		SMR 3306 TB 5	SMR 3306 TB T3	SMR 3306 TB J					
ABS	Ø12,7 (Snap Housing)	SMR 3306 S 5*	-	-					

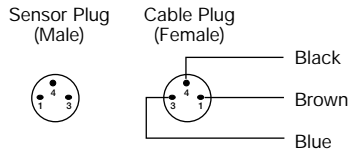
Receiver	3012	NPN, NC (light operated)		Polycarbonate	Ø10	SMR 3012 AP 5	SMR 3012 AP T3	-	12 metres
					M12 x 1	SMR 3012 TP 5	SMR 3012 TP T3	-	
				Nickel Plated Brass			SMR 3012 TB 5	SMR 3012 TB T3	
	Polycarbonate	M12 x 1	Ø10	SMR 3112 AP 5	SMR 3112 AP T3	-			
			SMR 3112 TP 5	SMR 3112 TP T3	-				
		Nickel Plated Brass		SMR 3112 TB 5	SMR 3112 TB T3	SMR 3112 TB J			
	Polycarbonate	M12 x 1	Ø10	SMR 3212 AP 5	SMR 3212 AP T3	-			
			SMR 3212 TP 5	SMR 3212 TP T3	-				
		Nickel Plated Brass		SMR 3212 TB 5	SMR 3212 TB T3	SMR 3212 TB J			
	Polycarbonate	M12 x 1	Ø10	SMR 3312 AP 5	SMR 3312 AP T3	-			
			SMR 3312 TP 5	SMR 3312 TP T3	-				
		Nickel Plated Brass		SMR 3312 TB 5	SMR 3312 TB T3	SMR 3312 TB J			

Note: Sensors marked * do not have power on or output indicators incorporated.
6m transmitters only work with 6m receivers.
12m transmitters only work with 12m receivers.

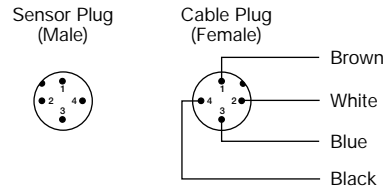
Connections

	Cable	M8 Plug/Cable	M12 Plug/Cable
Supply +	Brown	Pin 1/Brown	Pin 1/Brown
Supply -	Blue	Pin 3/Blue	Pin 3/Blue
SMT control	Black	Pin 4/Black	Pin 4/Black
SMR output	Black	Pin 4/Black	Pin 3/Black

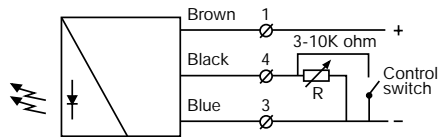
3 pin, M8



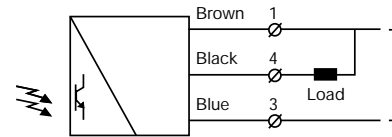
4 pin, M12



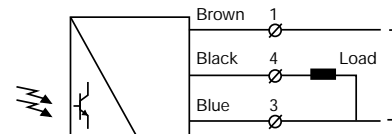
Wiring Diagrams



SMT 30XXC 1-6 m variable range and ON/OFF switch for transmitting power

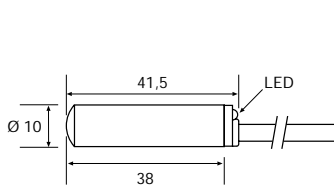


SMR 30XX / 31XX

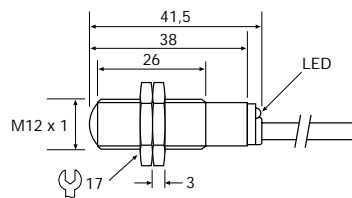


SMR 32XX / 33XX

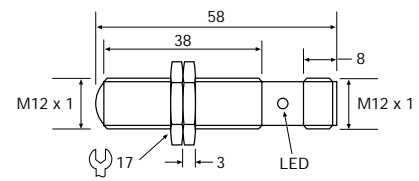
Dimensions and Descriptions



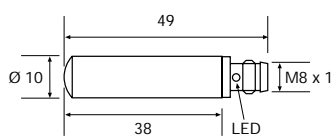
AP 2,5/5



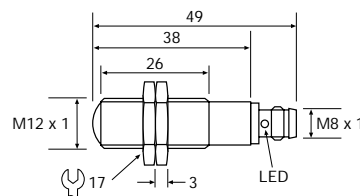
TP/TB 2,5/5



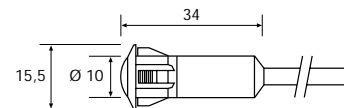
TB J



AP T3



TP/TB T3



S 2,5/5

(Units in mm)