

**Description**

- Operation mode and max sensing range:  
Thru-beam: 1-10 m
- Cable or plug connection
- Sensitivity adjustment via control input
- Power and output indicator
- 10 – 30 V dc supply voltage
- 3 wire, NPN or PNP transistor output
- Narrow optical beam
- TÜV approved as safety device (AOPD) for power operated doors and gates acc. EN12978



The 3000/CAT2 series consists of a 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 in light operated.

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 supply, control input and output signal. The output is also protected against short circuit and inductive loads.

Technical Data		SMT	SMR
		3010C/CAT2	3x10/CAT2
Supply voltage		10 – 30 V dc	
Voltage ripple		15 %	
Reverse polarity protected		Yes	
Short circuit protected		-	Yes
Current consumption		Max. 30 mA	Max. 8 mA
Maximum output load		-	100 mA
Maximum residual voltage		-	2,5 V
Maximum operation frequency		-	> 15 Hz
Response time t <sub>ON</sub> / t <sub>OFF</sub>		-	< 14 ms / < 34 ms
Power on indicator		Green LED	-
Output indicator		-	Yellow LED
Hysteresis		-	Approx. 25 %
Light source		Infrared (880 nm)	-
Opening angle		-	+/- 2°
Emission angle		+/- 2°	-
Housing material	Sensor housing	Nickel Plated Brass or Polycarbonate	
	Front lens	Polycarbonate	
Cable, PVC Ø 3,4 mm		3 x 0,14 mm <sup>2</sup>	

Environmental Data			
Vibration		10 – 55 Hz, 0,5 mm	
Shock		30 g	
Light immunity, @ 0° incidence		-	20 000 lux
Temperature, operation		-20 to +50 °C	
Temperature, storage		-40 to +80 °C	
Sealing class		IP 67	
Approvals		CE	
Safety category		TÜV acc. EN 12978:2003, IEC 61496-2:1997, EN ISO 13849-1:2006	

Available Types

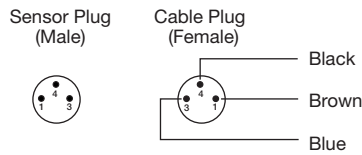
Transmitter	Type	Control Feature	Output	Connection		5 m cable	15 m cable	0.15m cable with 3 pin, M8 plug	Range
				Housing Material	Housing Size	Order Reference			
3010C	Adjustable range and test input	-	-	Polycarbonate	Ø10	SMT 3010C/CAT2 AP 5	SMT 3010C/CAT2 AP 15	SMT 3010C/CAT2 AP 0.15/T3	1-10 m
				Nickel Plated Brass	M12 x 1	SMT 3010C/CAT2 TP 5	SMT 3010C/CAT2 TP 15	SMT 3010C/CAT2 TP 0.15/T3	
						SMT 3010C/CAT2 TB 5	SMT 3010C/CAT2 TB 15	SMT 3010C/CAT2 TB 0.15/T3	

Receiver	Type	Control Feature	Output	Connection		5 m cable	15 m cable	0.15m cable with 3 pin, M8 plug	Range
				Housing Material	Housing Size	Order Reference			
3010	-	-	NPN, NC (light operated)	Polycarbonate	Ø10	SMR 3010/CAT2 AP 5	SMR 3010/CAT2 AP 15	SMR 3010/CAT2 AP 0.15/T3	10 m
				Nickel Plated Brass	M12 x 1	SMR 3010/CAT2 TP 5	SMR 3010/CAT2 TP 15	SMR 3010/CAT2 TP 0.15/T3	
						SMR 3010/CAT2 TB 5	SMR 3010/CAT2 TB 15	SMR 3010/CAT2 TB 0.15/T3	
3210	-	-	PNP, NC (light operated)	Polycarbonate	Ø10	SMR 3210/CAT2 AP 5	SMR 3210/CAT2 AP 15	SMR 3210/CAT2 AP 0.15/T3	10 m
				Nickel Plated Brass	M12 x 1	SMR 3210/CAT2 TP 5	SMR 3210/CAT2 TP 15	SMR 3210/CAT2 TP 0.15/T3	
						SMR 3210/CAT2 TB 5	SMR 3210/CAT2 TB 15	SMR 3210/CAT2 TB 0.15/T3	

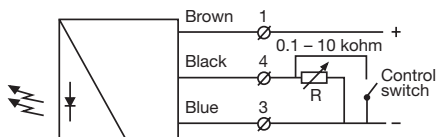
Connections

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

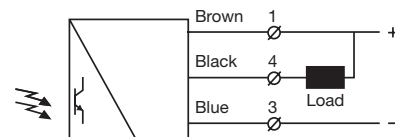
3 pin, M8



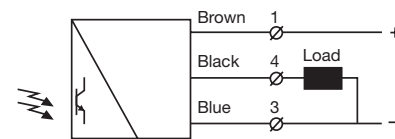
Wiring Diagrams



**SMT 3010C/CAT2**  
Variable range and ON/OFF switch for transmitting power

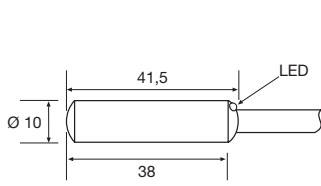


**SMR 3010/CAT2**

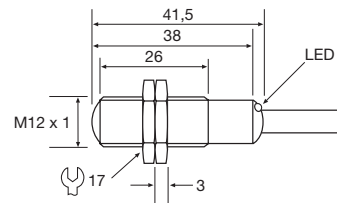


**SMR 3210/CAT2**

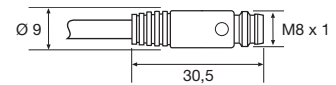
Dimensions and Descriptions



AP 5/15/0.15/T3



TP/TB 5/15/0.15/T3

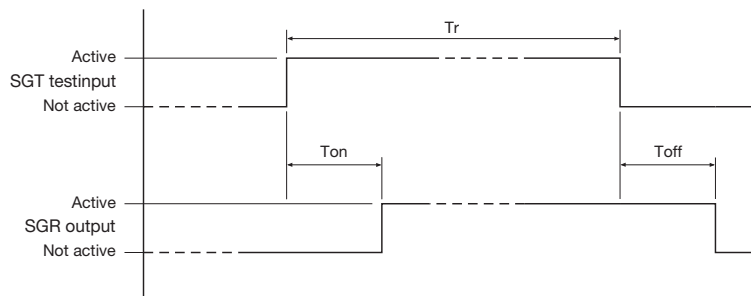


0.15/T3

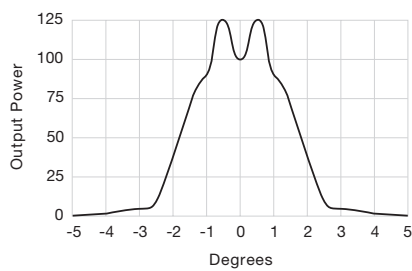
(Units in mm)

Response Times

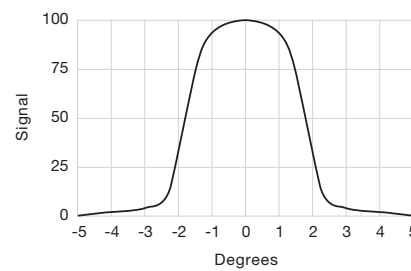
Range	SMT (test input reaction time)			SMR (output response time)	
	Ton (beam break)	Toff (beam make)	Tr (min)	Ton (beam break)	Toff (beam make)
2 m	14 ms	10 ms	20 ms	14 ms	10 ms
4 m	12 ms	11 ms	18 ms	12 ms	11 ms
6 m	11 ms	15 ms	17 ms	11 ms	15 ms
8 m	8 ms	29 ms	14 ms	8 ms	29 ms
10 m	8 ms	34 ms	14 ms	8 ms	34 ms



Angular Displacement



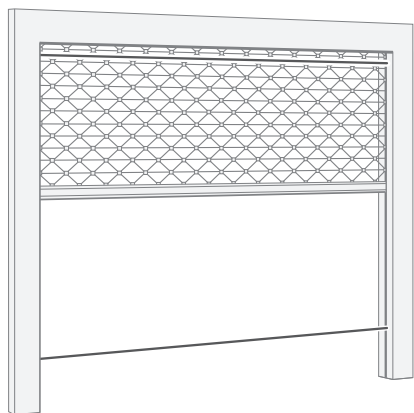
SMT 3010C/CAT2



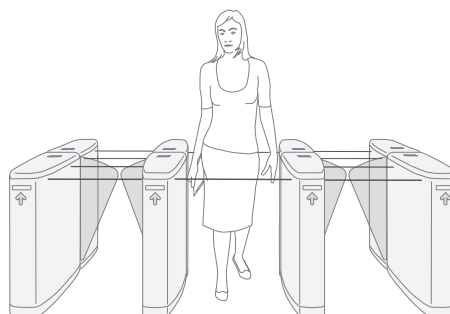
SMR 3x10/CAT2



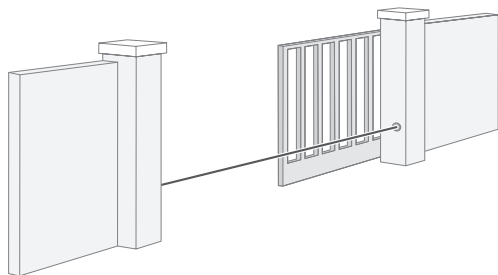
Applications



**SECURITY AND DOORS**  
Vehicle and pedestrian detection



**ACCESS CONTROL**  
Pedestrian detection



**GATES**  
Vehicle and pedestrian detection

Telco reserves the right to change specifications without notice.