

Product Data

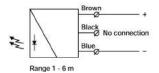
Electrical Data			
	Transmitter	Receiver	
Supply Voltage	10-30 V dc		
Voltage ripple	+/- 15%		
Reverse polarity protected	Yes		
Short circuit protected	-	Yes	
Power consumption	Max. 30 mA	Max. 8 mA	
Max. output load	-	100 mA	

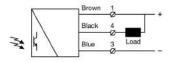
Environmental Data	
Temperature, operation	-20 to +50 °C
Sealing class	IP 67
Approvals	C€

Available Models				
Available inc	Model	Output	Output Mode	Sensing Range
	SMT 3000	-	-	1.5 m / 6 m
Transmitter	SMT 3000C	-	-	1-6 m, adjustable
	SMT 3012C	-	-	2-12 m, adjustable
	SMT 3000 HC	-	-	2-15 m, adjustable
Receiver	SMR 3006 SMR 3106 SMR 3206 SMR 3306	NPN NPN PNP PNP	Light operated (N.C.) Dark operated (N.O.) Light operated (N.C.) Dark operated (N.O.)	6 m
	SMR 3012 SMR 3112 SMR 3212 SMR 3312	NPN NPN PNP PNP	Light operated (N.C.) Dark operated (N.O.) Light operated (N.C.) Dark operated (N.O.)	12 m
	SMR 3015 SMR 3115 SMR 3215 SMR 3315	NPN NPN PNP PNP	Light operated (N.C.) Dark operated (N.O.) Light operated (N.C.) Dark operated (N.O.)	15 m

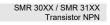
#### Connection

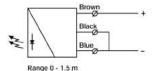
# Wiring Diagrams Transmitters Receivers

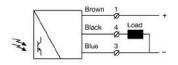




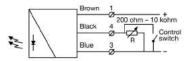








SMT 3000 Short range SMR 32XX / SMR 33XX Transistor PNP



SMT 3000C/SMT 3012C/SMT 3000HC Variable range and test input

Connection Wires/Pins			
	Cable	3 pin, M8 plug	4 pin, M12 plug
Supply +	Brown	Pin 1	Pin 1
Supply -	Blue	Pin 3	Pin 3
Control/Output	Black	Pin 4	Pin 4
	-	(***)	(2 3 4 4 )
		Sensor plug	Sensor plug

#### Mounting & Alignment

Mounting & Alignment		
1	Mount the transmitter and receiver sensors facing each other. Make sure the distance between the sensors does not exceed the specified sensing range of the system.	
2	Align the sensors by moving, either the transmitter or receiver sensor, horizontally and vertically until the output is:  - Deactivated when no object is present. (Dark operated)  - Activated when no object is present. (Light operated)	
3	Fasten the transmitter and receiver sensors securely. Avoid acute angles on cable close to sensor.	

### Adjustments

Output Logic			
Detection	Output Mode	Output status	Yellow LED
Object absent	Dark operated (N.O.)	Open	Off
Transmitter Receiver	Light operated (N.C.)	Closed	On
Object present	Light operated (N.C.)	Open	Off
Transmitter Receiver	Dark operated (N.O.)	Closed	On

#### Transmitter Power Adjustment

SMT 3000C / SMT 3012C / SMT 3000 HC

Maximum transmitting power can be used for most applications. Maximum transmitter power (factory set) is advised for applications with contaminated environments.

The transmitting power can be adjusted externally via the wires of the transmitter sensor. Adjust using a resistor (e.g. potentiometer) of 0,2 - 10K ohm or a voltage source of 1 - 4 V dc connected respectively between control and — (negative) supply wires. Adjustment of transmitter power may be required in applications where objects to be detected are small or translucent. Proceed with the following steps:

1	Select target object with the smallest dimensions and most translucent surface.
2	Place target object between transmitter and receiver sensors. If the output status changes, adjustment is not required. If the output status has not changed proceed to step 3.
3	Decrease the transmitter power (by reducing the resistance) until the output status changes. If the output status has not changed, attempt to move the sensors further apart or angle one of the sensors, and then repeat procedure.
4	Remove target object. Observe the output status has changed.

Note: If the transmitter power adjustment is not to be used, it is recommended to connect the control wire to + (positive) supply wire.

## Test Input

SMT 3000C / SMT 3012C/ SMT 3000 HC

The transmitter can be externally disabled and enabled, via the control wire, for test purposes. The test input requires the control wire to be connected to – (negative) supply wire. Make sure no object is present in the detection area when transmitter is disabled for test. When the transmitter is disabled, the receiver should change output.

Enable transmitter  $\,$  Open (off) control switch, a resistor over 200 ohm, or voltage over 0,7 V dc  $\,$ 

Disable transmitter Close (on) control switch, a resistor below 200 ohm, or voltage below 0,7 V dc

Note: If the test input is not to be used, it is recommended to connect the control wire to + (positive) supply wire.

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