Product Data

Electrical Data

	DC	AC
Supply Voltage	10-30 V dc	20-250 V ac
Voltage ripple	+/- 15%	-
Reverse polarity protected	Yes	-
Short circuit protected	Yes	-
Current consumption	14 mA	2 mA
Max. output load	120 mA	200 mA

Environmental Data

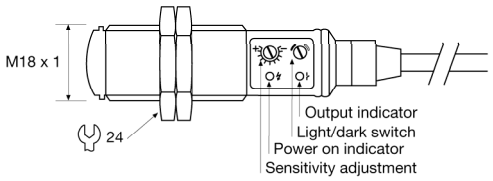
Temperature, operation		-20 to +60 ºC	
Sealing class		IP 67	IP 60
Approvals	ac	CE cULus	
	dc	CE	

Available Models

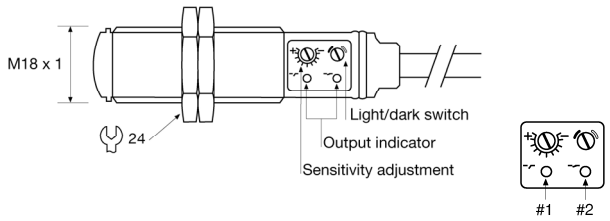
	Model	Supply Voltage	Output	Output Mode	Sensing Range
Retro Reflective	SMRR 8400	10-30 V dc	NPN	Light/dark	0-3 m, adjustable*
	SMRR 8500		PNP	Light/dark	
	SMRR 8800	20-250 V ac	SCR	Light/dark	

* Note: Measured against Ø85 mm retro-reflector.

Illustration



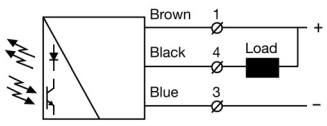
DC Models



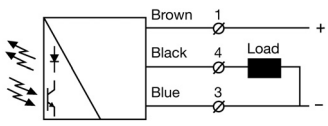
AC Models

Connection

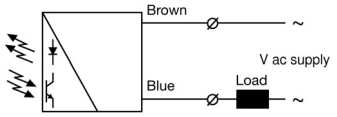
Wiring Diagrams



SMRR 8400
Transistor NPN



SMRR 8500
Transistor PNP



WARNING: ON AC MODELS
DO NOT CONNECT THE SENSOR WITHOUT A SERIAL LOAD

SMRR 8800
SCR

Connection Wires/Pins

	Cable	3 pin, M8 plug	4 pin, M12 plug
AC supply	Blue & Brown	-	-
Supply +	Brown	Pin 1	Pin 1
Supply -	Blue	Pin 3	Pin 3
Output	Black	Pin 4	Pin 4
	-	 Sensor plug	 Sensor plug

Mounting & Alignment

Mounting & Alignment

1	Position the sensor pointing at a retro-reflector.
2	Align by moving sensor horizontally and vertically until the output is deactivated when aiming at retro-reflector and when no object is present (refer to Output Logic table).
3	Fasten the sensor securely using the enclosed locking nuts and/or a mounting bracket. Avoid acute angles on cable close to sensor.

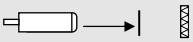
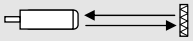
Adjustments

Output Mode Selection

The output mode can be selected via an integral light/dark switch. Refer to Output Logic table for output mode reference.

Light Operated (N.C.)	Enables the output to be inactive when there is an object present.	Turn switch to full clockwise position
Dark Operated (N.O.)	Enables the output to be active when there is an object present.	Turn switch to full counter clockwise position

Output Logic

Detection	Output mode	Output status	Yellow LED		
			DC models	AC models #1	AC models #2
Object present 	Dark operated (N.O.)	Close	On	Off	On
	Light operated (N.C.)	Open	Off	On	Off
Object absent 	Light operated (N.C.)	Close	On	Off	On
	Dark operated (N.O.)	Open	Off	On	Off

Sensitivity Adjustment

Maximum sensitivity can be used for most applications and is advised for applications with contaminated environments. Increase the sensitivity to maximum by turning the potentiometer to full clockwise position.

Sensitivity adjustment may be required in applications where objects to be detected are small or translucent. Proceed with the following steps:

1	Start with the sensitivity at maximum by turning the potentiometer to full clockwise position.
2	Select target object with smallest dimensions and most translucent surface.
3	Place target object between the sensor and retro-reflector. If the output status changes, adjustment is not required. If the output has not changed proceed to step 4
4	Decrease the sensitivity by turning the potentiometer counter clockwise until the output changes. If the output has not changed, attempt to move the sensor and retro-reflector further apart or angle the sensor/retro-reflector. Then repeat procedure from step 1.
5	Remove target object. Check the output status has changed.

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Made in Denmark

Warning

This product is not a safety system and must not be used as such.
It is not designed for personnel safety applications, and must not be used as a stand alone personnel safety system.

V 1.11 Part Number: 0666220643
January 2011 edition