

# LIGHT CURTAIN

## MODEL SIND 24

**SIND 24**

### DATA SHEET

- ❖ Active area 300 mm
- ❖ 24 LEDs, total of 196 IR Beams.
- ❖ Range 0.2 m to 7.5 m.
- ❖ Adjust beam light intensity by external potentiometer.
- ❖ Adjustable beam light intensity by internal potentiometer (model: SIND24-P).
- ❖ Not sensitive to misalignment.
- ❖ Transistor output PNP or NPN, Short circuit protected.
- ❖ Response time: 26 milliseconds max.
- ❖ Quick connection, M12 Connector.
- ❖ Two housing options.
- ❖ Operating Voltage 10 – 30V DC.

### Maximum Ratings

Supply Voltage: 30V DC.  
Output Transistor: 30V DC, 100mA..

### Description

The SIND24 is a 196 beam light curtain that consists of a transmitter (TX) edge and a receiver (RX) edge. A curtain of 196 discrete beams is formed between TX edge and RX edge over an active length of 300 mm. When one of these beams is obstructed a transistor PNP or NPN (depending on the model) output is activated. Output is short circuit protected.

Operating range of SIND24 is 0.2m to 7.5m. The range can be adjusted by connecting an external potentiometer which sets the light output intensity.

There are indication LEDs on each edge as follows:

1. Red LED on TX edge indicates, when lit, that power is applied.
2. Red LED on RX edge indicates, when lit, that no beam is obstructed, if one or more beams are obstructed this LED goes OFF.

### Housing

Aluminum Housings Available for SIND16 are:

1. SIND24-W Wide Extrusion of Housing (See fig. No: 1)
2. SIND24-S Slim Extrusion of Housing (See fig. No: 2)

### Output options:

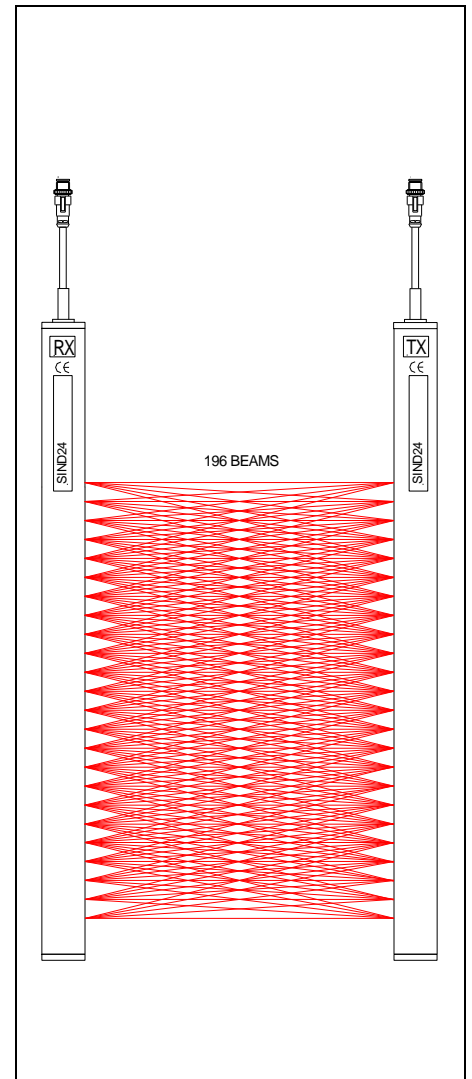
PNP Transistor output, Normally Open (N.O.)  
PNP Transistor output, Normally Closed (N.C.)  
NPN Transistor output, Normally Open (N.O.)  
NPN Transistor output, Normally Closed (N.C.)

Normally open (N.O.) : Unit is powered, no beam is obstructed - transistor output is not conducting.

Normally closed (N.C.) : Unit is powered, no beam is obstructed - transistor output is conducting.

IR light output intensity of TX can be adjusted via an external potentiometer. (See Fig: 12)

## Preliminary



**TWO EDGE HOUSINGS OPTIONS**

OPTION No: 1

OPTION No: 2

**WIDE HOUSING**

**SLIM HOUSING**

FRONT VIEW                      SIDE VIEW

SIDE VIEW                      FRONT VIEW

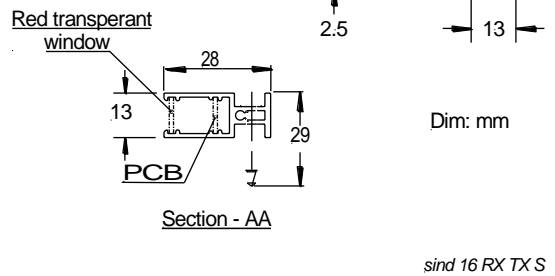
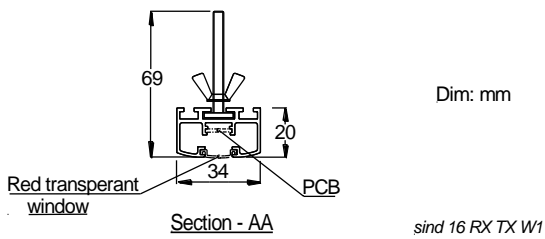
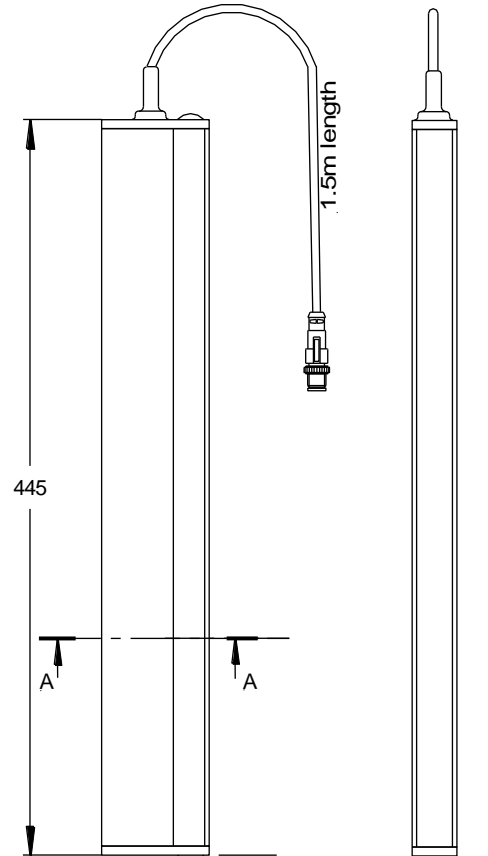
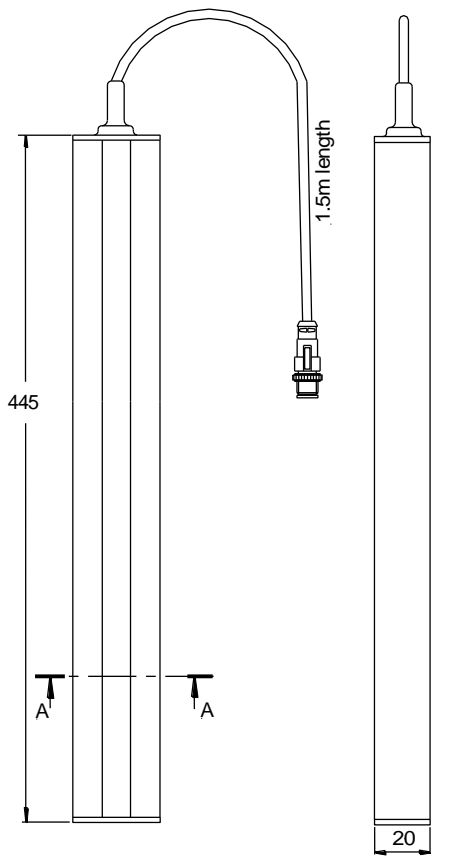
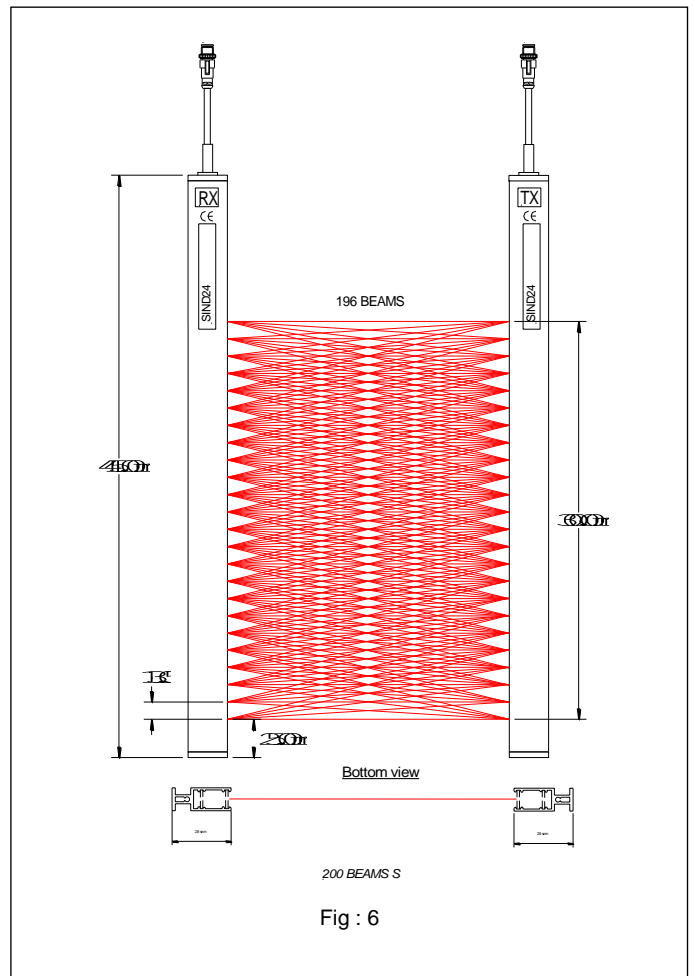
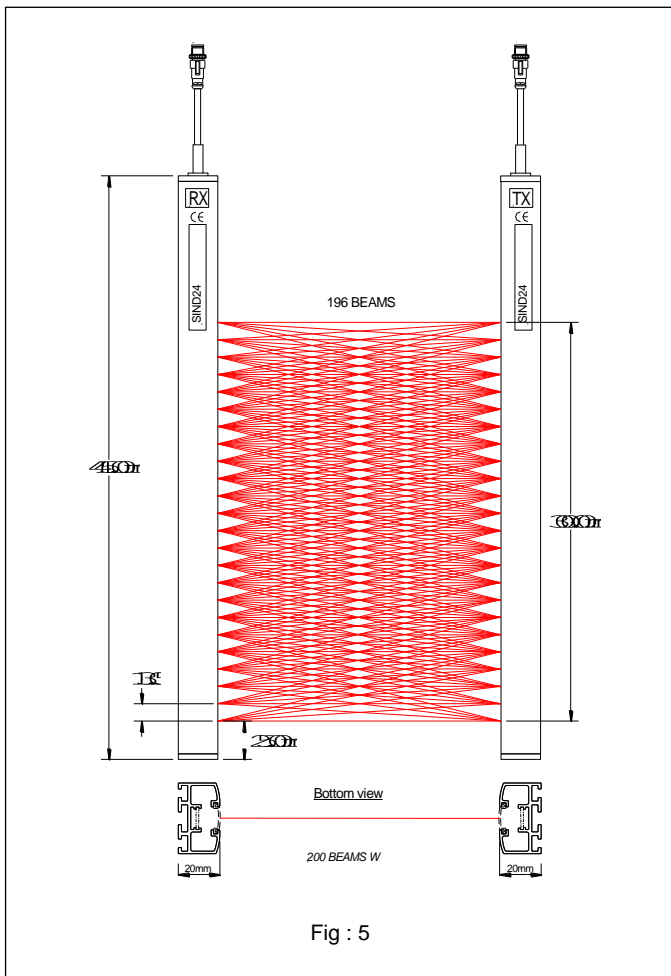
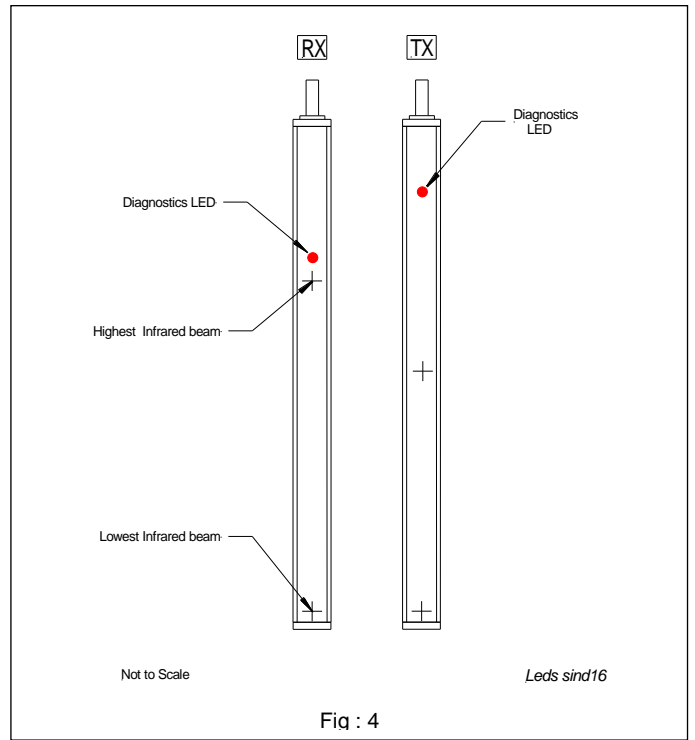
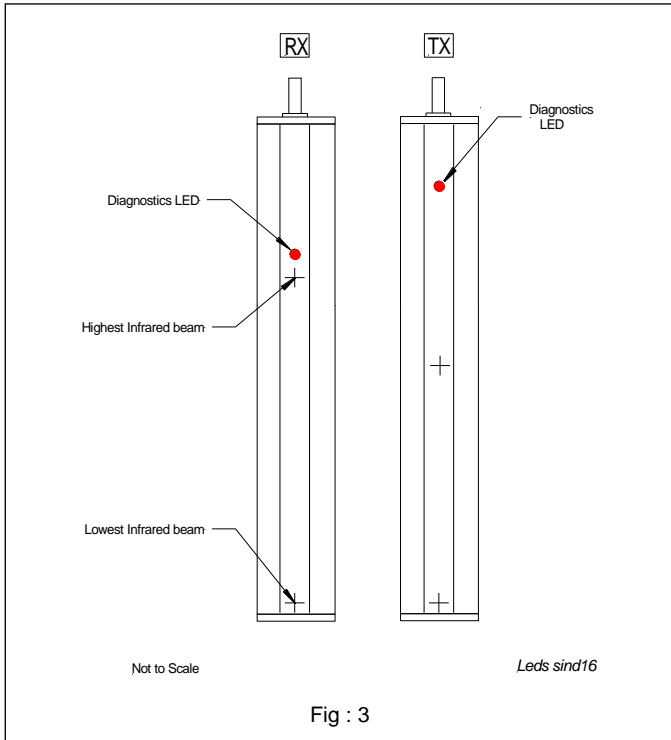


Fig : 1

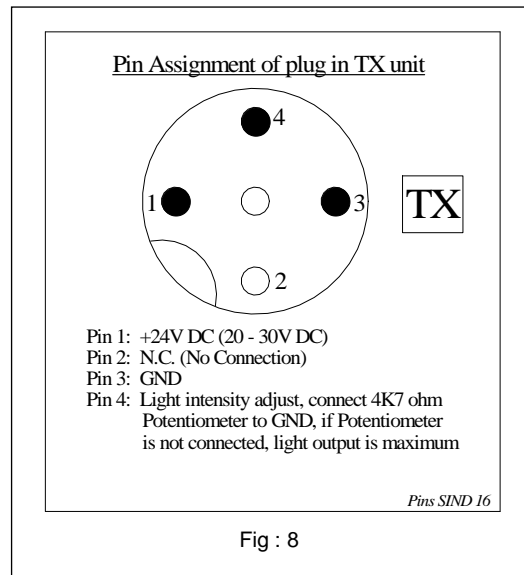
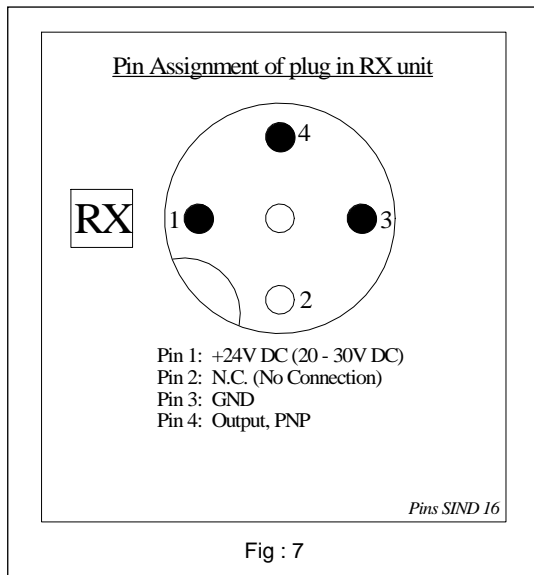
Fig : 2



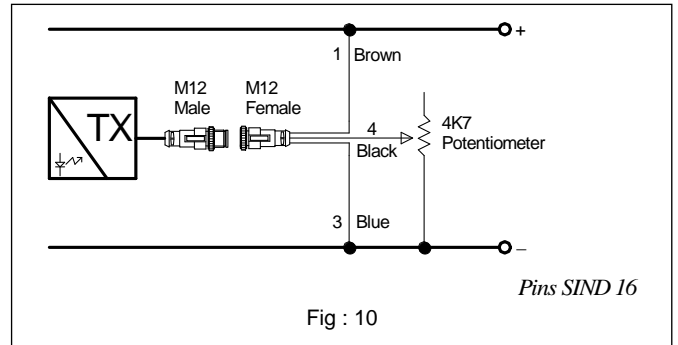
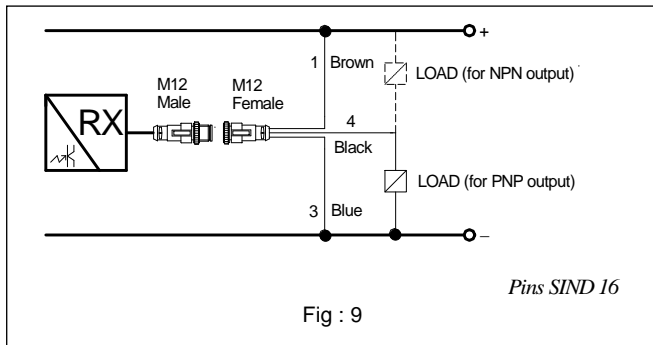


**Specifications**

Supply Voltage	10 – 30V DC
Power Consumption	1.5 W in 24 V DC
Output	Transistor output PNP or NPN, short circuit protected Current: 100 mA max Voltage: 30V max
Range	min.: 0.2 m      max. : 4 m
Edge height	445mm
Highest beam height	325mm
Lowest beam height	25mm
Active area	300mm
Total no. of beams	196
No. of direct beams	24
Grid distance	13.05 mm
Response Time	26 milliseconds max.
Indicators	Red LED, on RX to indicate that no beam is obstructed. Red LED, on TX to indicate that power is applied.
Cable	Sensor cable 1.5 m, M12 x 1 male connector
Mounting arrangements	Sliding T - Bolt..
Edge case material	Aluminum black anodized.
Packed weight	1.32 kg
Ambient temp.	-10° C to 50° C
Edges sealing	IP 51
Ambient light	Full sun light (40 Klux), full dark.
Approvals	CE

**Pin Assignment of Plug**

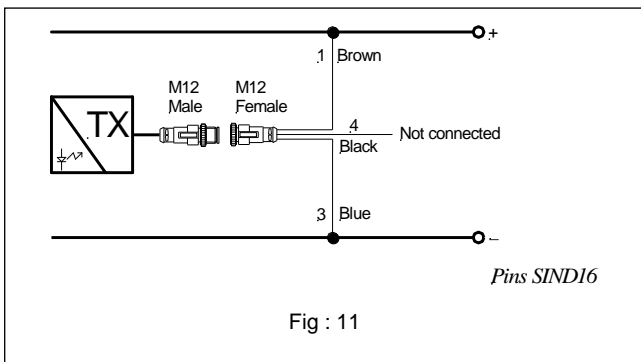
**Connection Diagram**



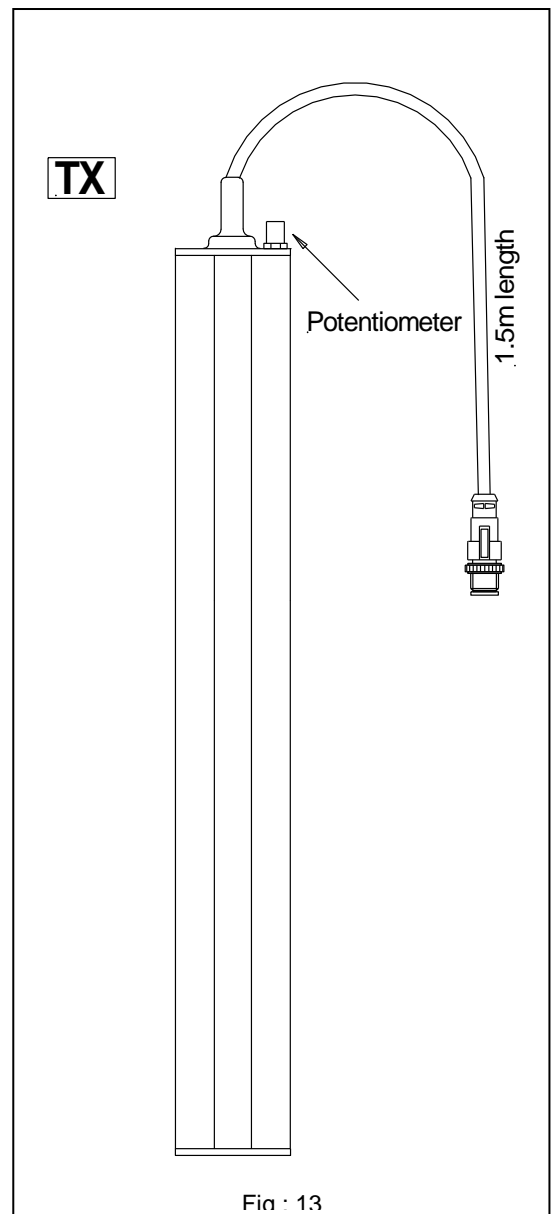
**SIND16 WITH INTERNAL POTENTIOMETER**  
**MODEL: SIND16-P**

The SIND-24, with wide housing option, can be ordered with a potentiometer mounted on upper plastic cap thus there is no need for an external potentiometer. The potentiometer is used to adjust light intensity and is mounted on TX edge only. Please refer to Fig.11. This model is designated Model SIND24-P. The SIND24-P is identical to SIND24 except that it can not work with external potentiometer.

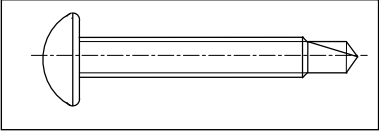
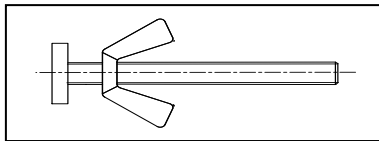
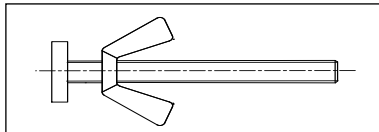
Connection diagram for TX edge is altered as follows (Fig. 12) :



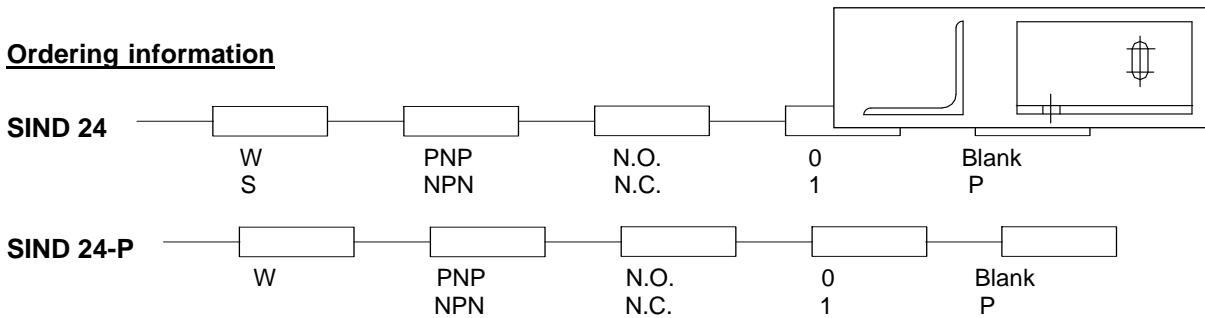
The SIND24-P is not available with slim housing.



**Mounting Hardware**

Slim Housing : 4 Nos. of Self Drilling Screw included in the set.	
Wide Housing : 4 Nos. Square Headed Bolts, 4 Nos. Wing Nuts, 4 Nos. Washers & 4 Nos. Spring Washers included in the set.	
Wide Housing : Mounting Angle (Optional)	

**Ordering information**



W = Wide Housing	N.O. = Normally Open	Transistor output - PNP	0 = Without Mounting hardware	Blank = External Potentiometer
S = Slim Housing	N.C. = Normally Closed	Transistor output - NPN	1 = With Mounting hardware	P = Internal Potentiometer

**Packing Information**

Each set is packed in a carton box.

**WARNING**

The SIND24 LIGHT CURTAINS ARE NOT A SAFETY SYSTEM and must not be used as such. They are not designed for personnel safety applications, and must not be used as a stand-alone personnel safety system.

TAL Engineering reserves the right to change specifications without notice.

*Taleng en SAR SIND24 DS v1.01*

