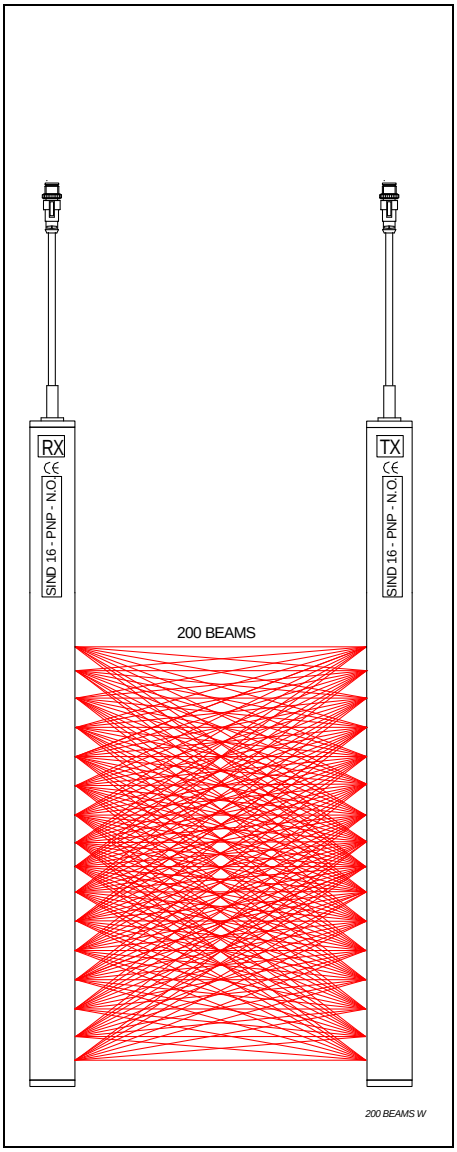
LIGHT CURTAIN

MODEL SIND 16

SIND 16

DATA SHEET

- Active area 194.5mm
- Total of 200 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: SIND16-P).
- Not sensitive to misalignment.
- Transistor output PNP or NPN, Short circuit protected.
- Response time: 50 milliseconds.
- Quick connection, M 12 Connector.
- Two housing options.
- Operating Voltage 10 – 30V DC.



Maximum Ratings

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

Description

The SIND16 is a 200 beam light curtain that consists of a transmitter (TX) edge and a receiver (RX) edge. A curtain of two hundred discrete beams is formed between TX edge and RX edge over an active length of 194.5mm. 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 SIND16 is 0.2m to 7.5m. The range can be adjusted by a potentiometer (screw-driver) or a remote 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. SIND16–W Wide Extrusion of Housing (See fig. No: 1)
2. SIND16–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 a local screw-driver adjusted potentiometer or a remote potentiometer. (See Fig: 10)

TWO EDGE HOUSINGS OPTIONS

OPTION No: 1

WIDE HOUSING

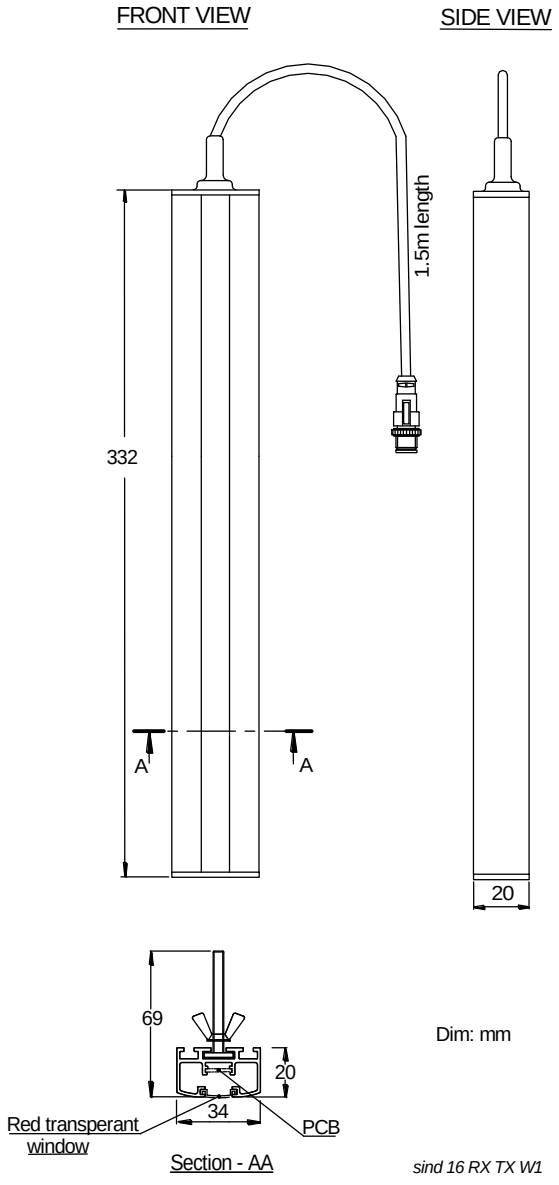


Fig : 1

OPTION No: 2

SLIM HOUSING

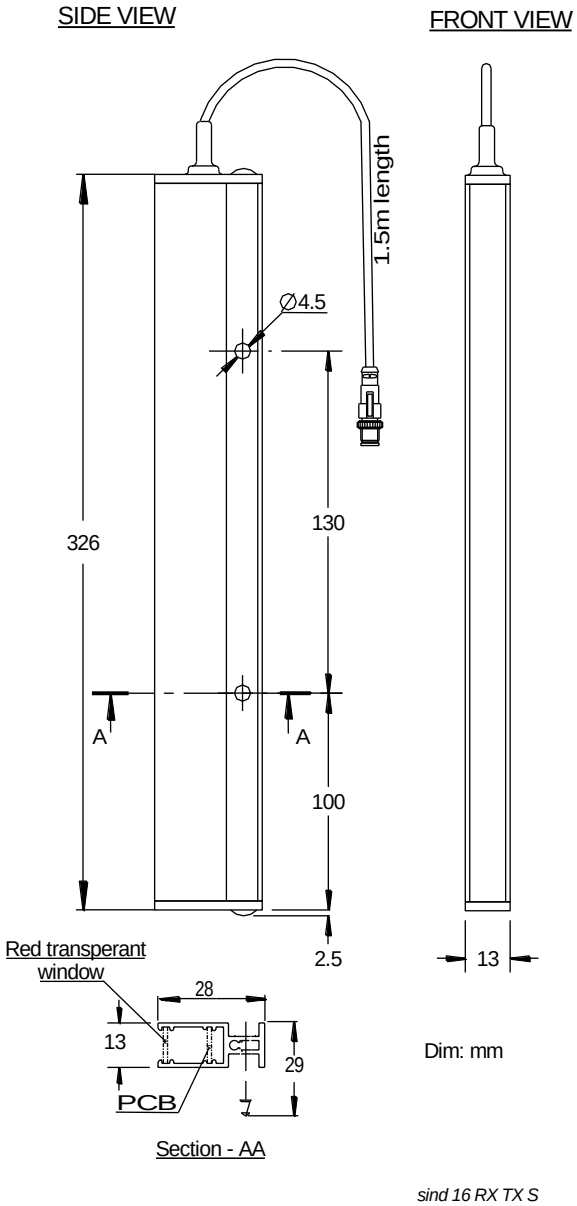


Fig : 2

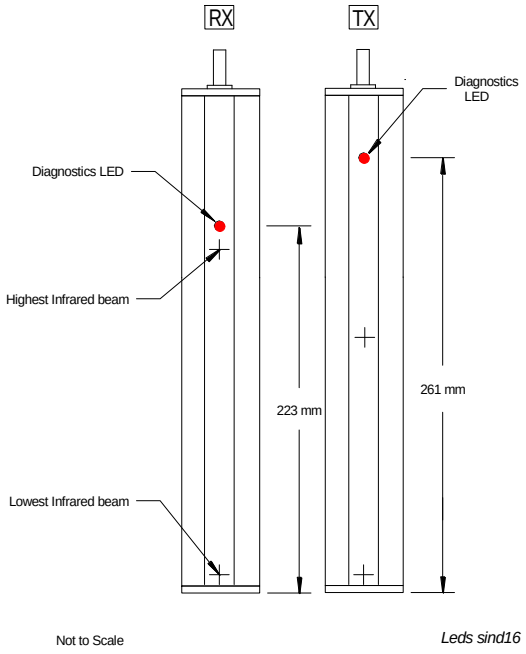


Fig : 3

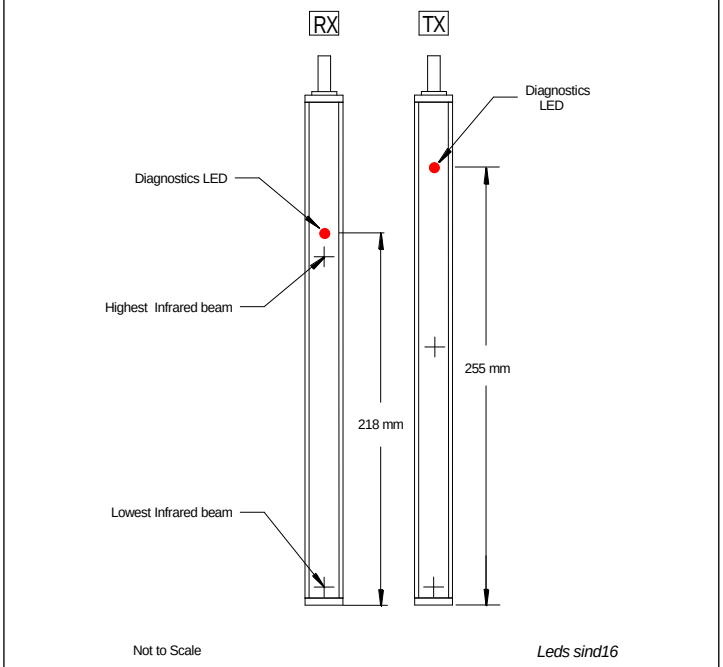


Fig : 4

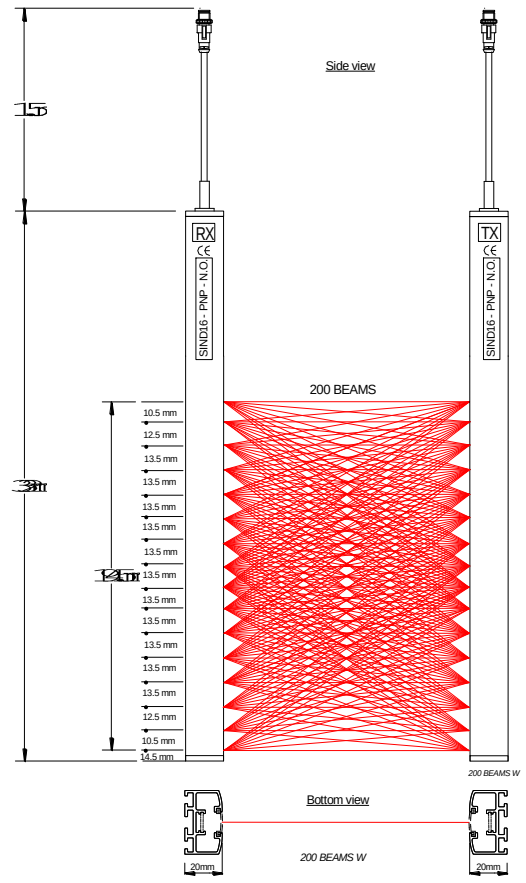


Fig : 5

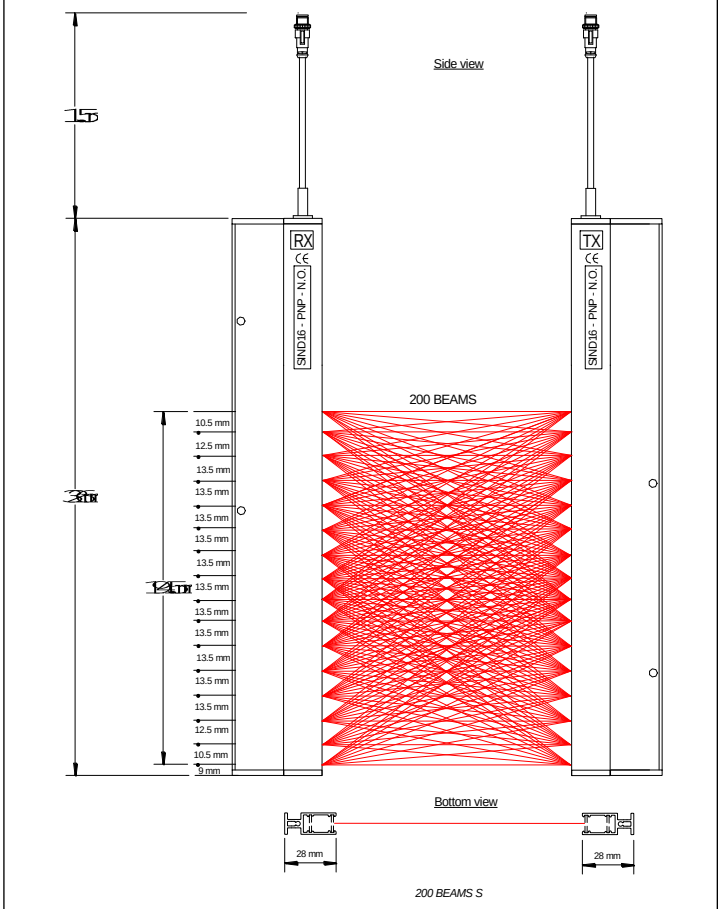


Fig : 6

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	326mm (slim housing), 332mm (wide housing)
Highest beam height	203.5mm (slim housing), 209mm (wide housing)
Lowest beam height	9mm (slim housing), 14.5mm (wide housing)
Active area	194.5mm
Total no. of beams	200
No. of direct beams	16
Grid distance	12 mm Average
Response Time	50 milliseconds
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	Wide version: Sliding T - Bolt. Slim version: Two holes of ø4.5mm.
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

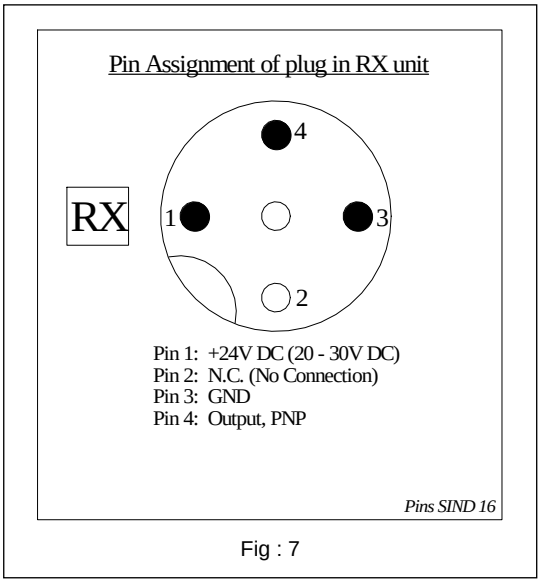


Fig : 7

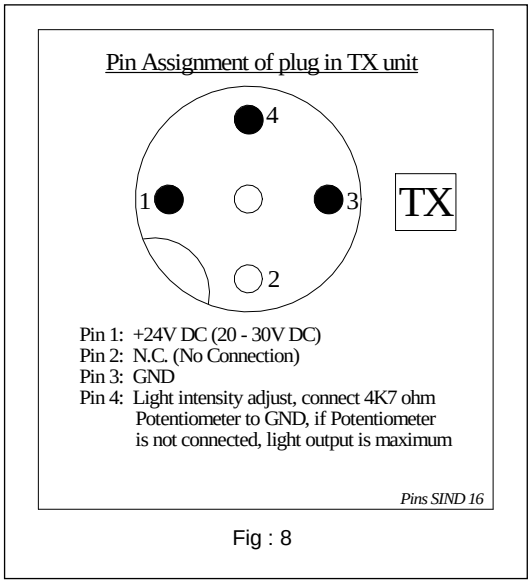


Fig : 8

Connection Diagram

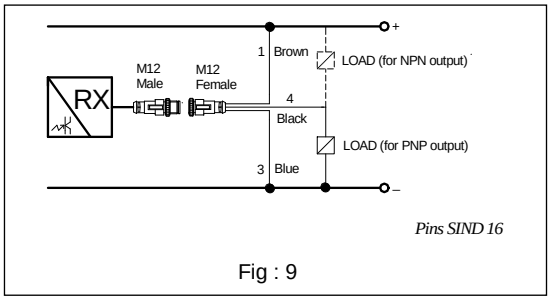


Fig : 9

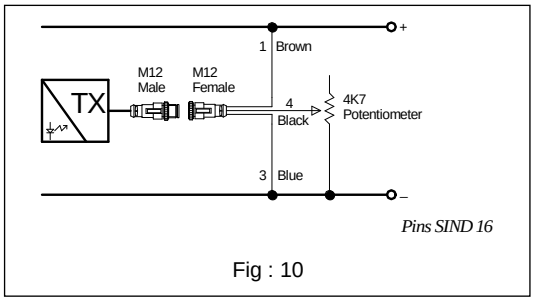


Fig : 10

SIND16 WITH INTERNAL POTENTIOMETER
MODEL: SIND16-P

The SIND-16, with wide housing option, can be ordered with a local potentiometer mounted on upper plastic cap thus there is no need for a remote potentiometer. The potentiometer is used to adjust light intensity and is mounted on TX edge only. Please refer to Fig.11.
The SIND16-P is identical to SIND16 except that it can not work with external potentiometer (alternatively it has a potentiometer mounted on upper cap).

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

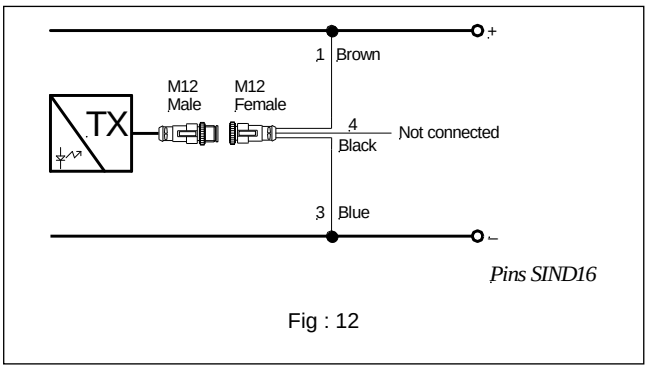


Fig : 12

The SIND16-RP is not available with slim housing.

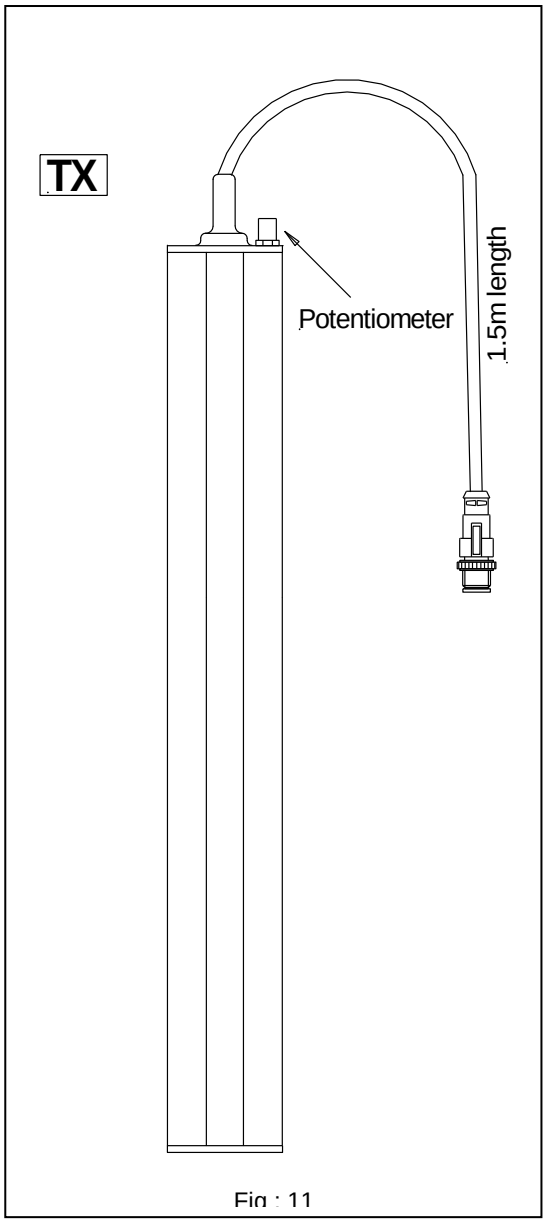
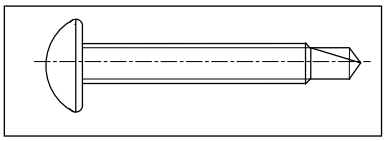


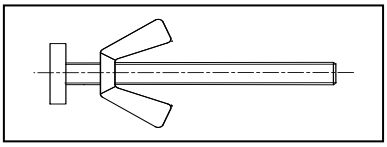
Fig : 11

Mounting Hardware

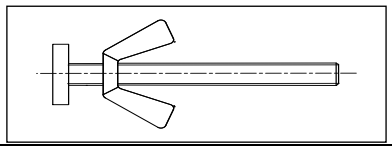
Slim Housing : 4 Nos. of Self Drilling Screw included in the set.

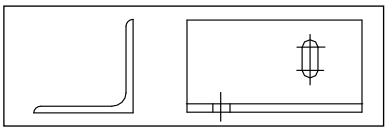


Wide Housing : 4 Nos. Square Headed Bolts, 4 Nos. Wing Nuts, 4 Nos. Washers & 4 Nos. Spring Washers included in the set.



Wide Housing : Mounting Angle (Optional)





Ordering information

SIND 16

W	PNP	N.O.	0	Blank
S	NPN	N.C.	1	P

SIND 16-P

W	PNP	N.O.	0	Blank
	NPN	N.C.	1	P

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

Packing Information

Each set is packed in a carton box.

WARNING

The SIND16 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.