

Photodiode array WELD HOLE DETECTION



Weld Hole Detector

DTR340R/EMR-C



Large field of detection

For special applications

Emitter with LED technology

E 1134



Typical applications

The **DTR340R** is a diode array detector. In association with a **EMR-C** LED light emitter (model EMR-C-400, EMR-C-800 or EMR-C-1200) it is able to detect the weld hole made in order to locate the linking weld between two strips.

General description

The Weld Hole Detector **DTR340R** consists of a lens, a linear diode array, and a processing unit.
The Emitter **EMR-C** consist of an array of high power red LED.

Features

The **DTR340R** Weld Hole Detector has been designed for heavy industry with:

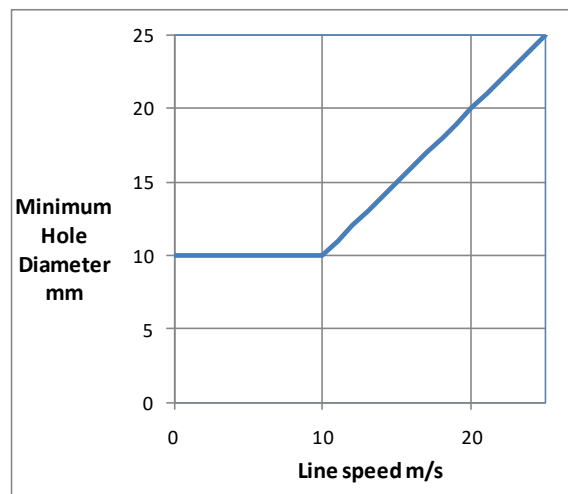
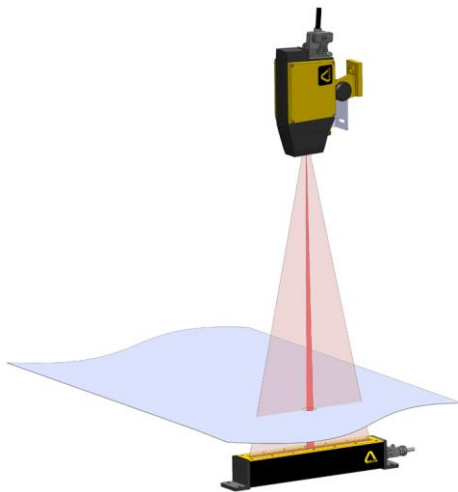
- Adjustable mounting stand (2 axes). In case the sensor needs to be replaced, it can be easily dismantled from the stand, thus keeping the alignment.
- Protective hood.
- Control panel beneath a hinged cover at rear.

Installation

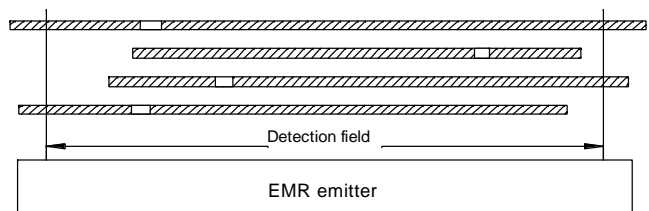
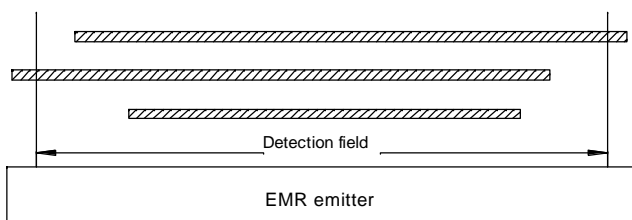
The **DTR340R** sensor detects the light emitted by an **EMR-C** through the weld hole. Receiver and emitter are fixed perpendicular to the line axis in order to take the lateral deviation of the strip into account.

The following conditions have to be held for a proper detection:

- The receiver's field of view and the light emission of the emitter should completely cover the lateral position of the hole.
- The emitter should cover the field of view of the receiver.
- The minimum hole diameter depending on the line speed is defined in the graph below.

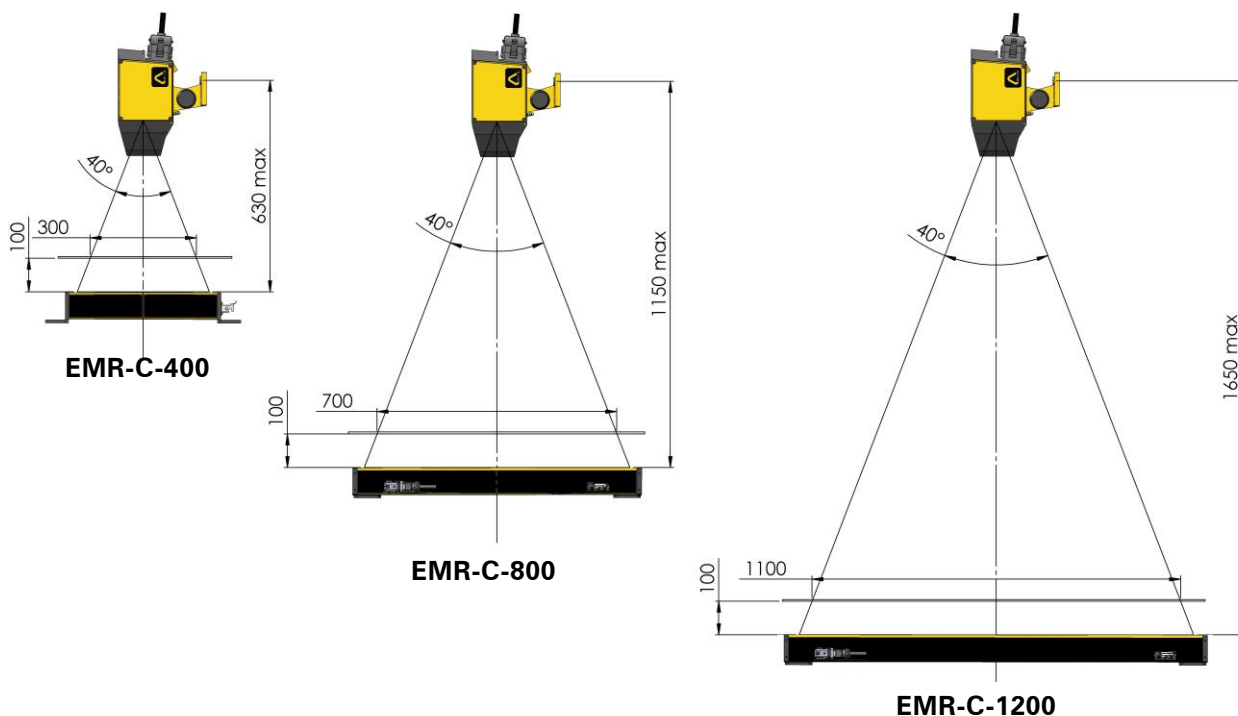


The figure bellow shows the different possible positions of the hole:





Typical installation



Characteristics



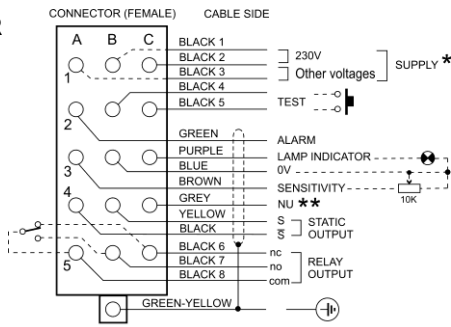
Receiver	DTR340R
Detection angle	40 °
Lateral angle	3.4°
On time (Output)	500 ms
Static output	2 complementary static outputs 24 V 100 Ma
Relay output	Single pole changeover: Switching capacity 550 VA with 250 V max, 5 A max Closing time: 7.5 ms, Opening time: 3 ms
Power supply voltage	220 V (-10%) to 240 V (+10%) - 50 / 60 Hz or 110 V (-10%) to 120 V (+10%) - 50 / 60 Hz
Power consumption	20 VA
Connection	Connector with 2 m cable (other length: 3, 5 or 8 m)
Weight	7 kg
Protection rating	IP66 (cast aluminium housing)
Working ambient temperature	0 °C to 60 °C (32 °F to 140 °F)

Emitter	EMR-C-400	EMR-C-800	EMR-C-1200
Emission	Continuous Red LED		
Emission length	400 mm	800 mm	1200 mm
Emission width	30 mm		
Alarm output	Push-pull output, short circuit protection, 0/24 V - 50 mA max 0V if internal failure or internal temperature > 55°C		
Supply voltage	110 V (-15%) to 240 V (+10%) - 50 / 60 Hz		
Power	20 VA	50 VA	60VA
Connection	Connector with 2 m cable (other length: 3, 5 or 8 m)		
Operating temperature	-20 to 50 °C (0 to 122 °F)		
Weight	4,2 kg	8 kg	12 kg
Protection Rating	IP67		



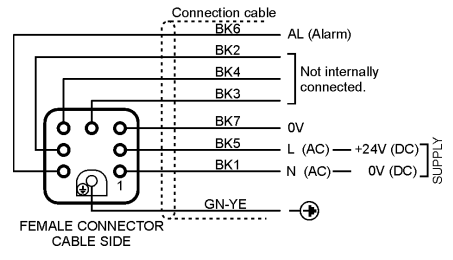
Connection

DTR340R

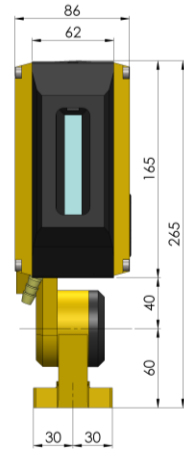
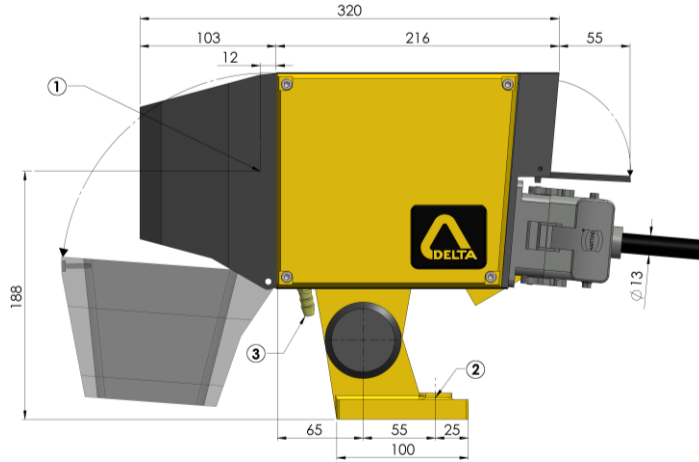


* NOTE : CABLE IS SUPPLIED WITH CONNECTIONS FOR THE VOLTAGE REQUESTED.
 ** DO NOT CONNECT TO ANY VOLTAGE.

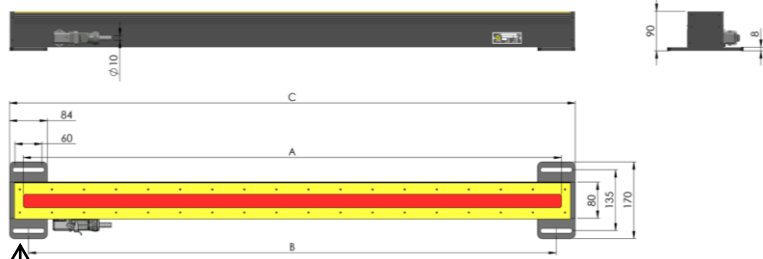
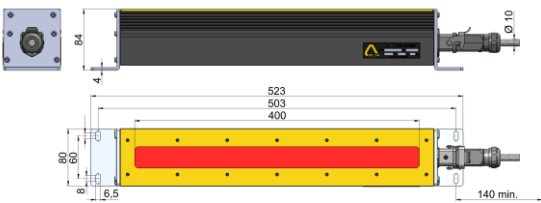
EMR-C



Dimensions



- ① Optical Center
- ② Mounting with screw Ø 12
- ③ Air supply Ø 10



	A	B	C
EMR-C-800	800	775	860
EMR-C-1200	1200	1175	1260

Note: The fixing plate can be mounted in different positions (bottom / side of the emitter).

Reference for order

Receiver: **DTR340R**

Supply voltage
230 VAC
115 VAC

Emitter: **EMR-C-••••• 115/230 VAC**

Length (mm)
400
800
1200

DELTA
 Tel : +33 388 78 21 01 - Fax : +33 388 76 02 29
 info@deltasensor.eu - www.deltasensor.eu

DELTA Sensor (China)
 Tel: +86 519 8188 2500 - Fax: +86 519 8188 2400 - info@deltasensor.com.cn

DELTA Vertriebsgesellschaft mbH (Germany)
 Tel: +49 700 3358 2736 - Fax: +49 700 3358 2835 - info.de@deltasensor.eu

DELTA Sensor (India)
 Tel: +91 11 4054 8170 - Fax: +91 11 4054 8172 - info@deltasensor.co.in

DELTA USA, Inc. (North America)
 Tel: +1 (412) 429 3574 - Fax: +1 (412) 429 3348 - info@delta-usa.com

DELTA Sensor (Russia)
 Tel: + 7 916 682 6027 - info.ru@deltasensor.eu

