

Photodiode array DETECTOR



CCD ARRAY DETECTOR

DR3000/EMR-C



Detection of small section product

Detection regardless of the transverse position

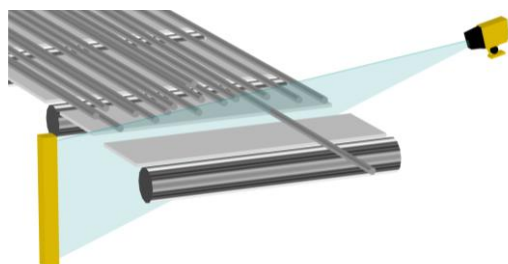
Design for extremely harsh environment

E 1041

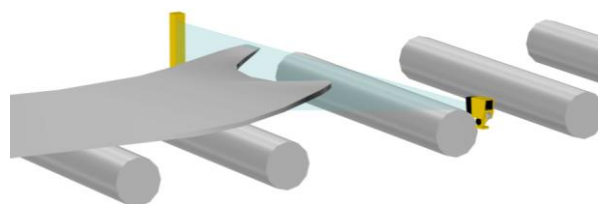


Typical applications

The receiver **DR3000** is a linear photodiode array detector. In association with the **EMR-C** LED emitter, it is able to detect product with small section in a wide field, whatever the transverse position of this product.



Detection of small bars on a wide table



Detection of head / tail

Presentation - Features

The Detector **DR3000** consists of a lens, a linear diode array and a processing unit enclosed in a cast aluminium case. The image of the viewed area is focused onto the diode array. The output of the Detector **DR3000** switches when a product is seen within the field of view with light emitter **EMR-C** in the background.

The Detector **DR3000** has been designed for heavy industry, with:

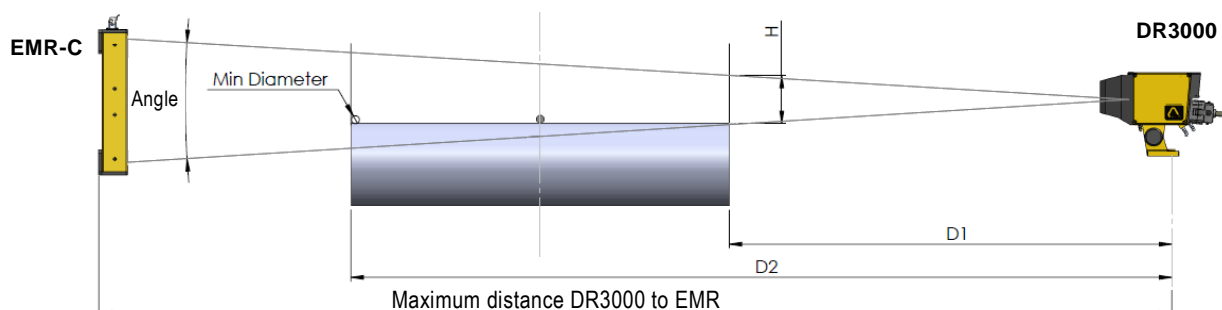
- A mounting stand, which is adjustable in two axes. In case the sensor must be replaced, it can be easily dismantled from the stand, without disturbing the alignment.
- Control panel behind a hinged cover, including:
 - Control LED (P.P.): ON when a product is detected.
 - Saturation LED (Sat): ON when the diode array is saturated.
 - Sensitivity potentiometer (sens).
 - Selection of the detection angle: 50%, 75%, 100%

Technical characteristics

Reference	DR3337•	DR3537•
Focal length	50	25
Detection angle (selectable)	3.5° - 5.25° - 7°	7° - 10.5° - 14°
Lateral angle	0.6°	1.1°
Number of diodes	256	

Reference	DR3•37R	DR3•37HT
Maximum target temperature	600 °C	1150 °C

Field of view

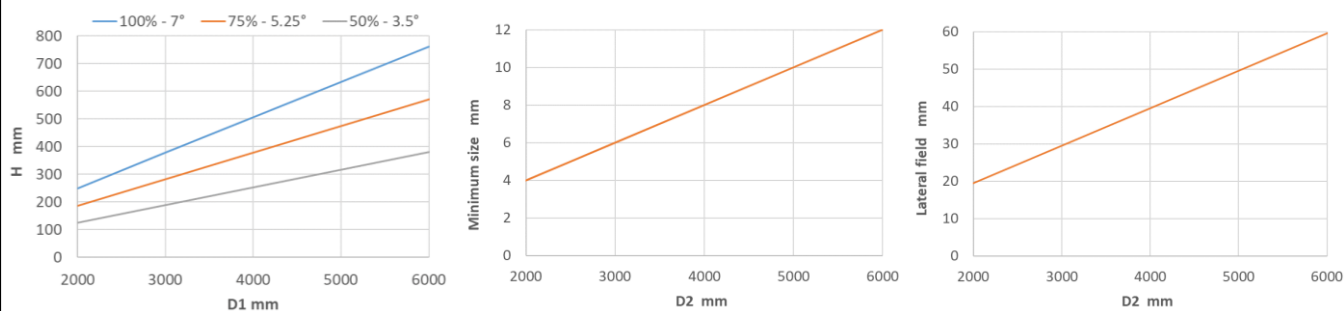


Maximum distance DR3000 to EMR (mm)	DR3337•			DR3537•		
	3.5°	5.25°	7°	7°	10.5°	14°
EMR-C-400	6 000	4 000	3 000	3 000	2 000	1 500
EMR-C-800	6 000	6 000	6 000	4 000	4 000	3 000
EMR-C-1200	-	-	-	4 000	4 000	4 000

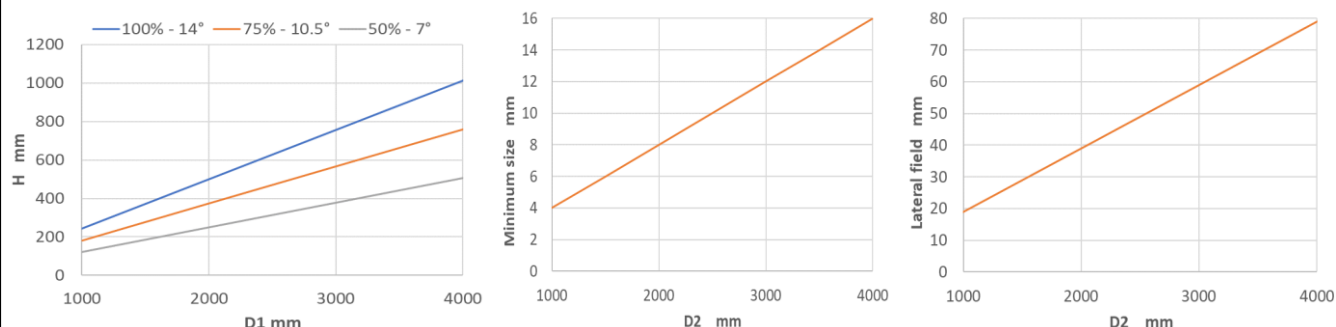
Note: The EMR emitter should completely cover the field of view of the DR3000



DR3337•



DR3537•



Receiver DR3000 characteristics

Response time	6 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
Alarm output	0/24 V on the collector of a transistor. Load resistance of 2.2 kΩ to internal +24 V. 0 V when the monitoring system detects one of the following faults: power supply failure, absence of scanning on the photodiode array, internal temperature greater than 60 °C. 24 V when no fault is detected.
Indicator output	Static output 24 V / 50 mA for external lamp indicator, 24 V when object detected
Operating 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 fitted with silicone cable with protective steel braid Standard length of 2 m (other length: 3, 5 or 8 m)
Weight	7 kg
Protection rating	IP66 (cast aluminium housing)
Operating ambient temperature	0 °C to 60 °C (32 °F to 140 °F) without cooling, up to 120 °C (250 °F) with water cooling

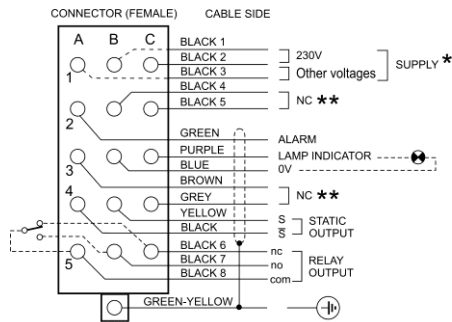
Emitter EMR-C characteristics

Emitter	EMR-C-400	EMR-C-800	EMR-C-1200
Emission	Continuous Red LED		
Emission length / width	400 mm / 30 mm	800 mm / 30 mm	1200 mm / 30 mm
Alarm output	Push-pull output, 0/24 V - 50 mA max 0V if internal failure or internal temperature > 55°C (131 °F)		
Operating voltage	110 V (-15%) to 240 V (+10%) - 50 / 60 Hz		
Power consumption	20 VA	40 VA	60VA
Connection	Connector with 2 m cable (other length: 3, 5 or 8 m)		
Weight	4 kg	8 kg	12 kg
Protection Rating	IP67		
Operating ambient temperature	-20 to 55 °C (0 to 131 °F)		



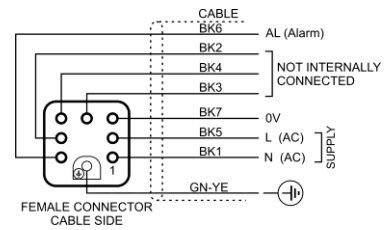
Connection

DR3000

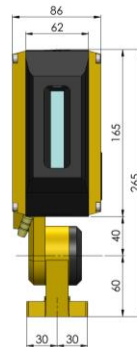
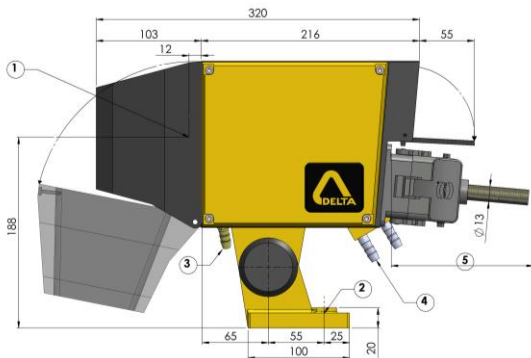


* NOTE : CABLE IS SUPPLIED WITH CONNECTIONS FOR THE VOLTAGE REQUESTED.
** DO NOT CONNECT TO ANY VOLTAGE.

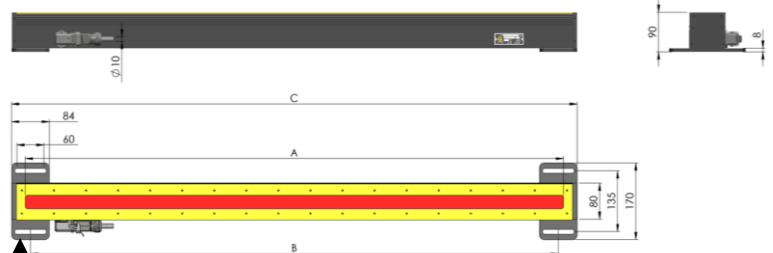
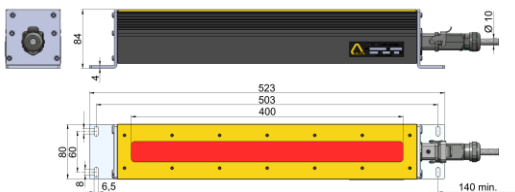
EMR-C



Dimensions



- ① Optical Center
- ② Mounting with screw Ø 12
- ③ Air Supply Ø 10
- ④ Water supplies Ø 10
- ⑤ Connector clearance 120 mm



	A	B	C
EMR-C-400	400	503	523
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: **DR3.37** • • •

Focal length	Max. target T°	Supply voltage
3: 50	R: 600°C	230 VAC
5: 25	HT: 1150°C	115 VAC

e.g: DR3337R 230 VAC + EMR-C800 115/230 VAC

Emitter: **EMR-C** • • • • **115/230 VAC**

Length (mm)
400
800
1200

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Subject to change without prior notice

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