



Contrast Sensors



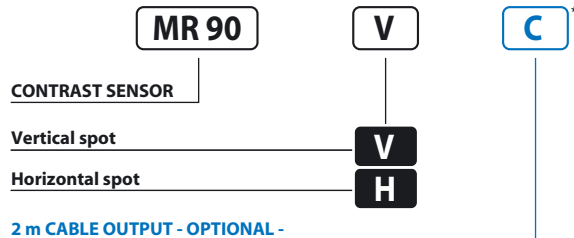
MARK READERS 10-30 V DC SOLID STATE AND ANALOG OUTPUT

- Teach-in
- Red/green LED emission
- Vertical or horizontal spot
- Remote setting
- Models with Auto-Set Long operation life
- Metal housing with orientable optic

MR Series



Identification code

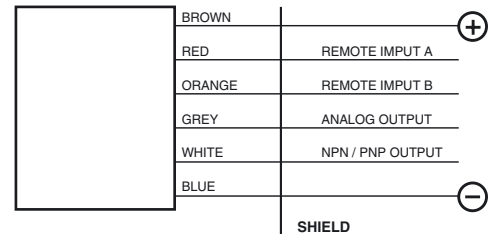


* M12 connector is the sensor standard output.
For ordering the cable output model, add the "C" option to the chosen code.

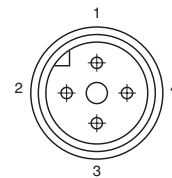
Product description

POWER SUPPLY	10 ... 30 Vdc, reverse polarity protection
CONSUMPTION	80 mA max.
LIGHT EMISSION	red 635 nm / green 565 nm LED
SPOT DIMENSION	1.5 x 5 mm (9 mm lens)
OPERATING DISTANCE (indicates e the typical detection distance)	6 ... 12 mm (9 mm lens)
DEPTH OF FIELD	±3 mm (9 mm lens)
SETTING	Teach-in with 2 push-buttons
INDICATORS	red OUTPUT LED / green READY LED
OUTPUT TYPE	NPN or PNP, Rpull-down/up 10 K ohm
SATURATION VOLTAGE	1 V max. (NPN vers.) 2 V max. (PNP vers.)
OUTPUT CURRENT	200 mA max., short-circuit protection
RESPONSE TIME	50 µs max.
SWITCHING FREQUENCY	10 kHz max.
OPERATING MODE	automatic dark/light selection
ANALOG OUTPUT RANGE	0 ... 5.5 Vdc (2 Vdc on white 90%) 2.2 K ohm out. resistance
TIMING FUNCTION	20 ms minimum output ON
CONNECTION	M12 4-pole connector
ELECTRICAL PROTECTION	class 1
MECHANICAL PROTECTION	IP 67
HOUSING MATERIAL	ZAMA
LENS MATERIAL	Glass
WEIGHT	310 g max. (connector vers.)
OPERATING TEMPERATURE	-10 ... +55°C
STORAGE TEMPERATURE	-25 ... +70°C

Wiring diagrams



Connection with connector M12

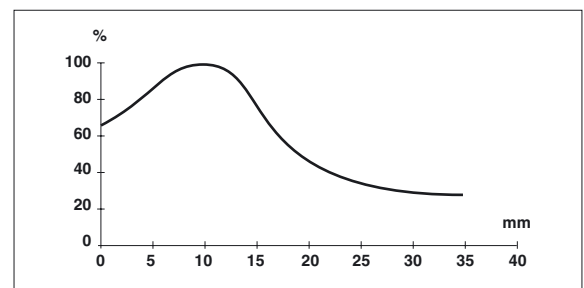


View of quadrupole male connector.

CONTACTS CONFIGURATION

	Contacts numbers			
	1	2	3	4
Wires connections	+	Analog output	-	NPN/PNP output
Wires colours	BROWN	WHITE	BLUE	BLACK

Detection diagram



The detection diagram indicates the typical operating distance.

Dimensions

