

SI-COLO Series

▶ SI-COLO1-200

With this color sensor type three primary colors (RED, GREEN, BLUE) are made available as analog signals at the output.

- Measuring range typ. 100 mm ... 350 mm
- White-light LED, 100 kHz modulated
- Adjustment of LED transmission power
- 3 analog outputs 0V ... +10V (red, green, blue)
- Insensitive to outside light
- Scratch-resistant optics cover made of glass
- Sturdy aluminum housing

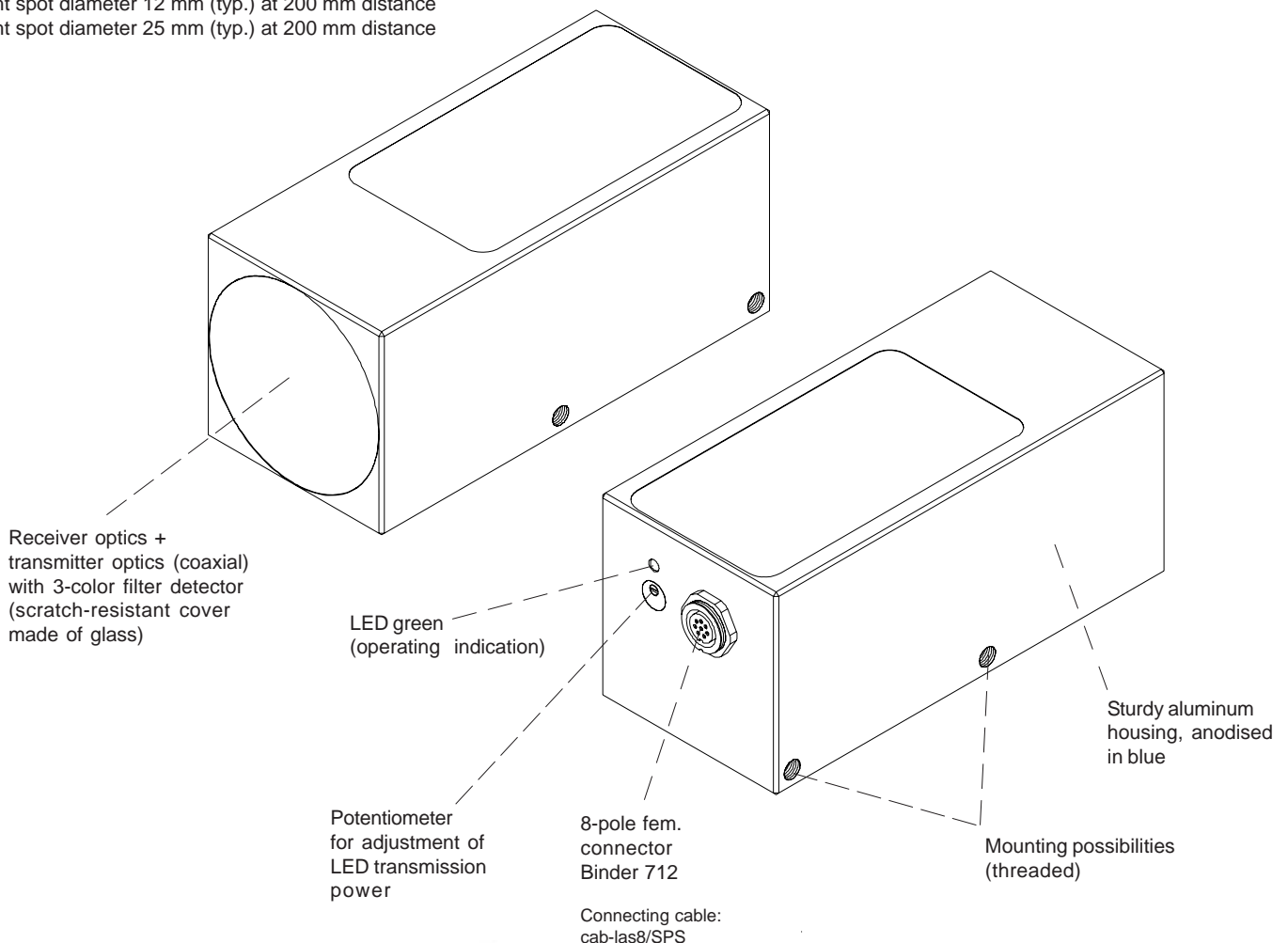


Design

Product name:

SI-COLO1-200-d1
SI-COLO1-200-d2

d1 = Light spot diameter 12 mm (typ.) at 200 mm distance
d2 = Light spot diameter 25 mm (typ.) at 200 mm distance

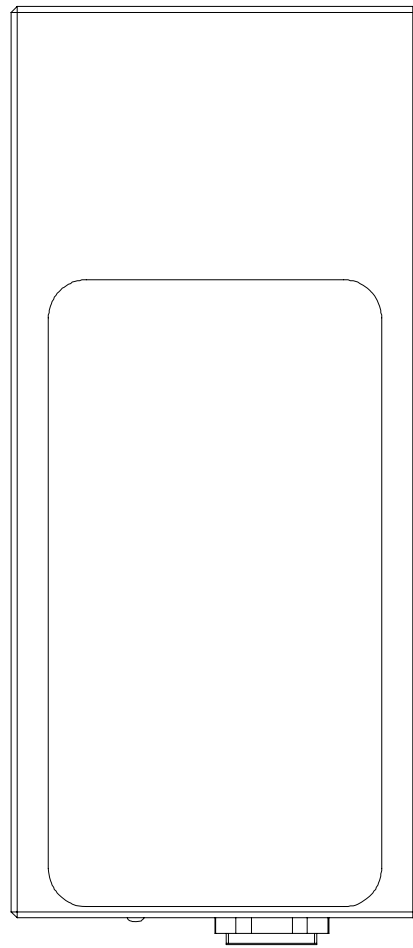
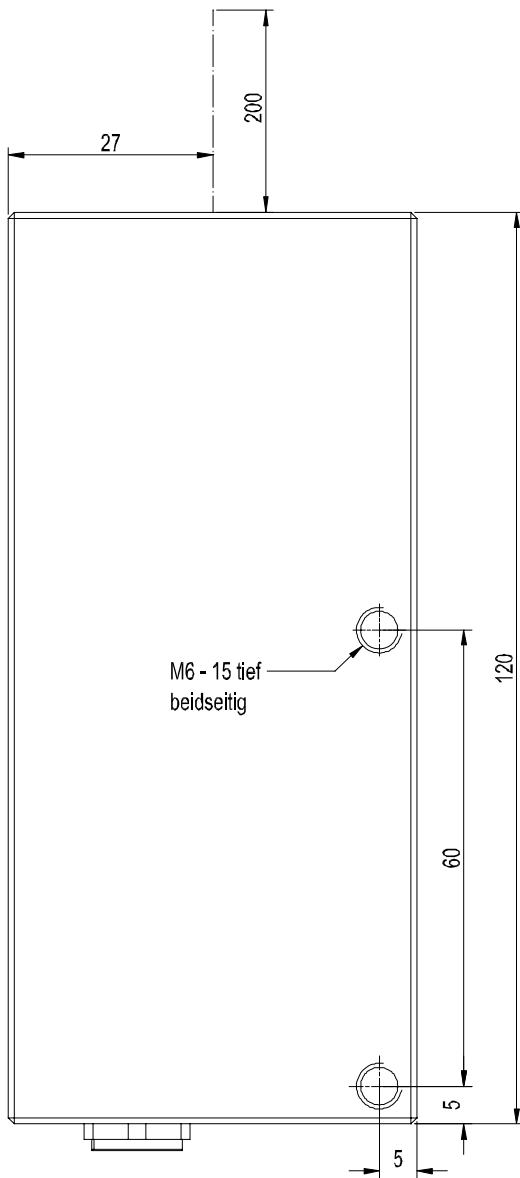
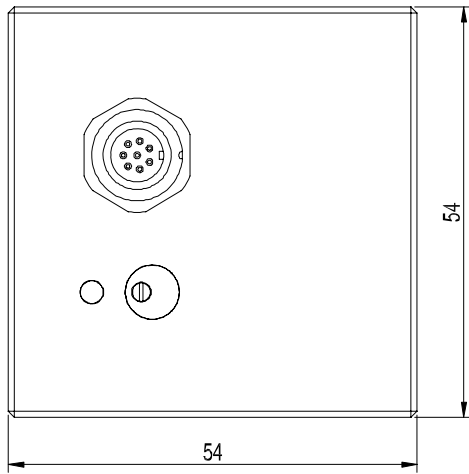




Technical Data

Model	SI-COLO1-200-...
Light source	white light LED, modulated 100 kHz
Target distance	Type d1: typ. 100 mm ... 350 mm Type d2: typ. 100 mm ... 400 mm
Light spot size	Type d1: typ. 12 mm in diameter at 200 mm distance Type d2: typ. 25 mm in diameter at 200 mm distance
Receiver	3-color filter detector
Pulsating light operation	100 kHz
Ambient light	up to 5000 Lux
Enclosure rating	IP64
Current consumption	typ. 180 mA
Voltage supply	+12VDC ... +30VDC, reverse-polarity protected, overload-protected
Type of connector	Connection to PLC: 8-pole female connector (Binder series 712)
EMC test acc. tol	IEC - 801...
Housing material	Aluminum, anodised in blue (optics holding device: aluminum, anodised in black)
Housing dimensions	LxWxH approx. 120 mm x 54 mm x 54 mm (without flange connector)
Operating indication	by means of a green LED
Adjustment of transmission power	by means of a 3-revolutions potentiometer
Operating temperature range	-20°C ... +55°C
Storage temperature range	-20°C ... +85°C
Outputs	3x analog 0V ... +10V (red, green, blue)
Analog band width	typ. 2 kHz (-3dB)

Dimensions



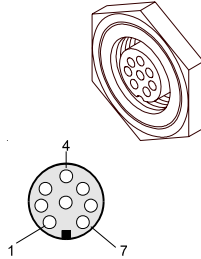
All dimensions in mm


 Connector Assignment

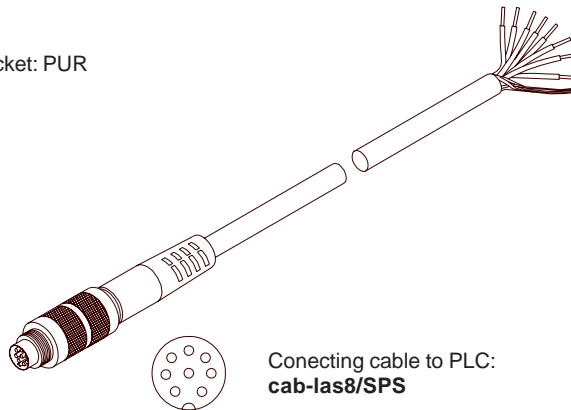
Connection of SI-COLO1-200 to PLC:
8-pole female connector Binder 712

Pin: Color: Assignment:

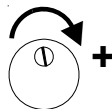
1	white	GND (0V)
2	brown	+12 ... +30VDC
3	green	IN0
4	yellow	ANA RED (0 ... +10V)
5	grey	ANA GREEN (0 ... +10V)
6	pink	ANA BLUE (0 ... +10V)
7	blue	not connected
8	red	not connected



 Connecting Cable

Connecting cable for SI-COLO1-200:
cab-las8/SPS Length: 2m Outer jacket: PUR

 Connecting cable to PLC:
cab-las8/SPS

 Setting

Setting of potentiometer:

3-revolutions potentiometer for adjustment of LED transmission power

 Revolution clockwise:
 Increase of transmission power
 (results in an increase of analog signal)