

colorCONTROL ACS3



- Measurement of self-luminous and transparent objects
- Measurement distance: max 300mm
- Measurement geometry: transmission
- Measurement spot: ø5/ø9mm (at a measurement distance up to 200mm)

The transmission sensor ACS3 is used to measure self-luminous and transparent objects like foil, glass and Plexiglas. For the color measurement of selfluminous objects, only a receiver unit is required. Measuring transparent objects requires transmitter (TT) and receiver unit (TR) which can be installed with a mounting set.

Measurement geometry: Transmission



FCS-ACS3-200 mounting rail







213

220

FCS-ACS3 mounting adapter 50mm Art.-No. 10824423 FCS-ACS3 mounting adapter 150mm Art.-No. 10824422



Fiber-optic sensor FCS-T-	ACS3-TR5-200-1200	ACS3-TR9-200-1200	ACS3-TT15-200-1200
Anicie number	IV024411	10024412	10024413
Measurement geometry (illumination/receiver)	Receiver	Receiver	Transmitter
Measurement spot diameter	5mm for <100mm 1)	9 mm for $<$ 200mm ¹⁾	15mm for 200mm 5)
Optimal measurement distance	10 100mm ^{2) 3)}	10 200mm ^{2) 3)}	10 200mm
Working range	10 200mm ^{2) 3)}	10 300mm ^{2) 3)}	10 300mm
Distance tolerance 4)	<0.01 Δ E/mm ⁶⁾ <0.005 Δ E/mm ²⁾	<0.01 Δ E/mm ⁶⁾ <0.005 Δ E/mm ²⁾	-
Tilt angular tolerance 4)	<0.05 ΔE/°	<0.05 \Delta E/°	-
Ambient light tolerance at max. LED-performance	<0.05 ΔE/1000lux	<0.05 \Delta E/1000lux	
Dimensions	Ø22x40mm	Ø22x40mm	Ø30x96mm
Weight (sensor incl. optical fiber)	70g	70g	220g
Length of the optical fiber/sensor cable (optical-fiber cable)	1.2m (max. 30m)	1.2m (max. 30m)	1.2m (max. 1.8m)
Bending radius sensor cable	70mm	70mm	70mm
Protection class	IP 64	IP 64	IP 64
Operating temperature	-20°C +70°C	-20°C +70°C	-20°C +70°C
Storage temperature	-20°C +70°C	-20°C +70°C	-20°C +70°C
Shock resistance	DIN EN 60068-2-29; 15g, 6ms		
Vibration resistance	DIN EN 60068-2-6; 2g / 10Hz500Hz		

Vibration resistance

¹⁾ Measurement spot diverges with growing distance between receiver and target

²⁾ Valid in combination with ACS3-TT15-200 for the transmission measurement (transmitted light)

³⁾ When measuring the transmission, the "optimal measurement distance" and the "working range" refer to the distance between transmitter and receiver. The sample can be at any position within the light curtain between transmitter and receiver.

⁴ Tilt angular tolerance and distance tolerance were determined in transmission with different color glass filters (thickness 2.5 mm, refraction index 1.5).

When measuring the illumination (only receiver), these were determined with uniformly illuminated (Lambertian) diffuser by tilting the transmitter towards the receiver.

5) Illumination spot diameter

⁶⁾ When using it as receiver sensor for illumination measurement



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