

Fields of application

- Agricultural and forestry machinery
- Construction machinery and special-purpose vehicles
- Solar thermal energy and photovoltaics
- Automated guided systems
- Crane and lifting technology
- Wind power plant

Detailed technical data

Performance

Number of axis	2	
Measuring range	± 10° ± 45° ± 60°	
Resolution	± 10°	0.01°
	± 45°	0.05°
	± 60°	0.06°
Accuracy	± 10°	± 0.15°
	± 45°	± 0.3°
	± 60°	± 0.5°
Cross-sensitivity (compensated)	± 10°	Typ. ± 0.25°, max. ± 0.5°
	± 45°	Typ. ± 0.9°, max. ± 1.8°
	± 60°	Typ. ± 1.2°, max. ± 2.4°
Temperature coefficient (zero point)	Max. ±0,009°/K	
Limit frequency	18 Hz	
Sampling rate	1.95 kHz	
Initialization time	75 ms	

Interfaces

	4...20 mA, sinusoidal	0...10 V, sinusoidal
Load resistance max,	930 Ω	-

Electrical data

	4...20 mA, sinusoidal	0...10 V, sinusoidal
Connection type	Cable, 5-wire, 0.2 m, with male connector M12, 5-pin	
Operating voltage range	11 V DC ... 30 V DC	
Current consumption	15 ... 45 mA	15 ... 25 mA
Reverse polarity protection	✓	
Short-circuit protection of the outputs	✓	
MTTFd: mean time to dangerous failure	378 years (EN ISO 13849-1) ¹⁾	290 years (EN ISO 13849-1) ¹⁾

¹⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive. Calculation based on nominal load of components, average ambient temperature 40°C, frequency of use 8760 h/a. All electronic failures are considered hazardous. For more information, see document no. 8015532.

Mechanical data

Dimensions	65 mm x 35 mm x 20 mm
Mass	55 g (with cable)
Housing material	Plastic (ABS)
Material, cable	PUR

Ambient data

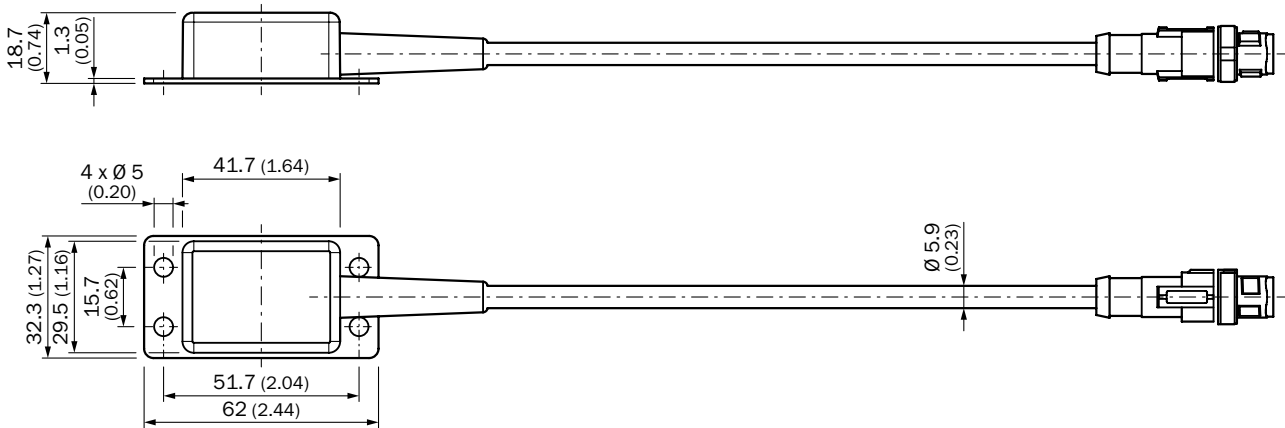
EMC	EN 61326-1, EN ISO 14982, EN ISO 13309
Enclosure rating	IP65/IP67 (according to IEC 60529)
Working temperature range	-40 °C ... +80 °C
Storage temperature range	-40 °C ... +85 °C
Resistance to shocks	100 g, 6 ms (according to EN 60068-2-27)
Resistance to vibration	10 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6)

Ordering information

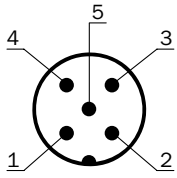
- **Number of axis:** 2-dimensional
- **Housing material:** Plastic (ABS)

Measuring range	Resolution	Electrical interface	Type	Part no.
± 10°	0.01°	0...10 V, sinusoidal	TMM55E-POH010	1073783
		4...20 mA, sinusoidal	TMM55E-PMH010	1073780
± 45°	0.05°	0...10 V, sinusoidal	TMM55E-POH045	1073784
		4...20 mA, sinusoidal	TMM55E-PMH045	1073781
± 60°	0.06°	0...10 V, sinusoidal	TMM55E-POH060	1073785
		4...20 mA, sinusoidal	TMM55E-PMH060	1073782

Dimensional drawings (Dimensions in mm (inch))



PIN assignment



PIN Male connector M12, 5-pin	Colour of wires Cable connection	Signal	Function
1	Brown	VDC	Supply voltage
2	White	Y-OUT	Sensorsignal y-axis
3	Blue	GND	0V (GND)
4	Black	X-OUT	Sensorsignal x-axis
5	Green/yellow	Signal- GND	Signal GND (internally connected to GND)

Accessories

Plug connectors and cables

Connecting cables with female connector

Figure	Brief description	Cable length	Type	Part no.
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: cable Cable: Analog, Power, drag chain use, PUR, halogen-free, shielded	1.5 m	DOL-1205-W1M5AC-SCO	6049455
		3 m	DOL-1205-W03MAC-SCO	6049456
		5 m	DOL-1205-W05MAC-SCO	6049457
		10 m	DOL-1205-W10MAC-SCO	6049458
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: cable Cable: Analog, drag chain use, PUR, halogen-free, shielded	1.5 m	DOL-1205-G1M5AC-SCO	6049451
		3 m	DOL-1205-G03MAC-SCO	6049452
		5 m	DOL-1205-G05MAC-SCO	6049453
		10 m	DOL-1205-G10MAC-SCO	6049454

Dimensional drawings → [Page 8](#)

Female connectors (ready to assemble)

Figure	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, straight Cable: unshielded	DOS-1205-G	6009719

Dimensional drawings → [Page 8](#)

Male connectors (ready to assemble)

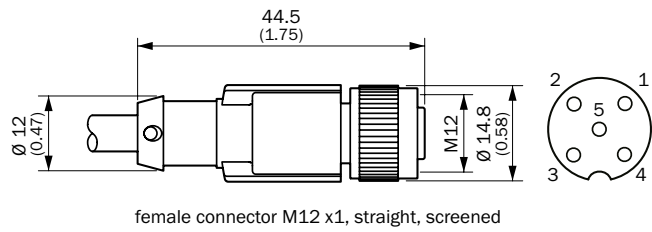
Figure	Brief description	Type	Part no.
	Head A: male connector, M12, 5-pin, straight Cable: unshielded	STE-1205-G	6022083

Dimensional drawings → [Page 8](#)

Dimensional drawings for accessories (Dimensions in mm (inch))

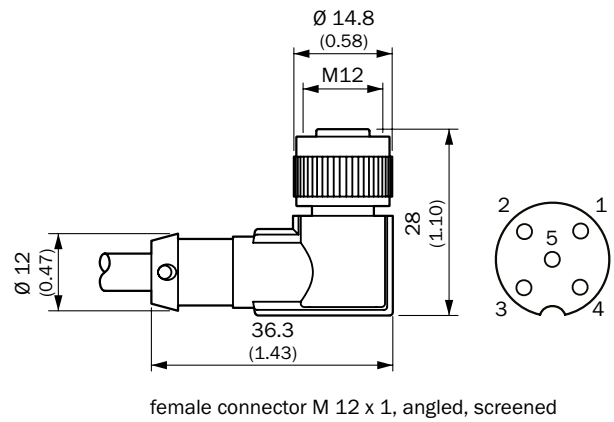
Connecting cables with female connector

DOL-1205-GxxMACSCO



- ① Brown
- ② White
- ③ Blue
- ④ Black
- ⑤ Gray

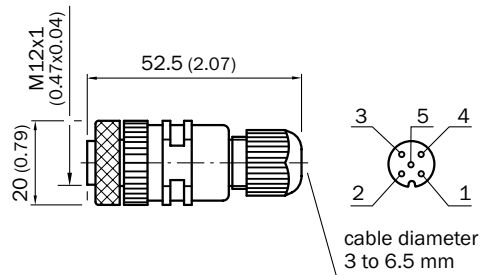
DOL-1205-WxxxACSCO



- ① Brown
- ② White
- ③ Blue
- ④ Black
- ⑤ Gray

Female connectors (ready to assemble)

DOS-1205-G



Male connectors (ready to assemble)

STE-1205-G

