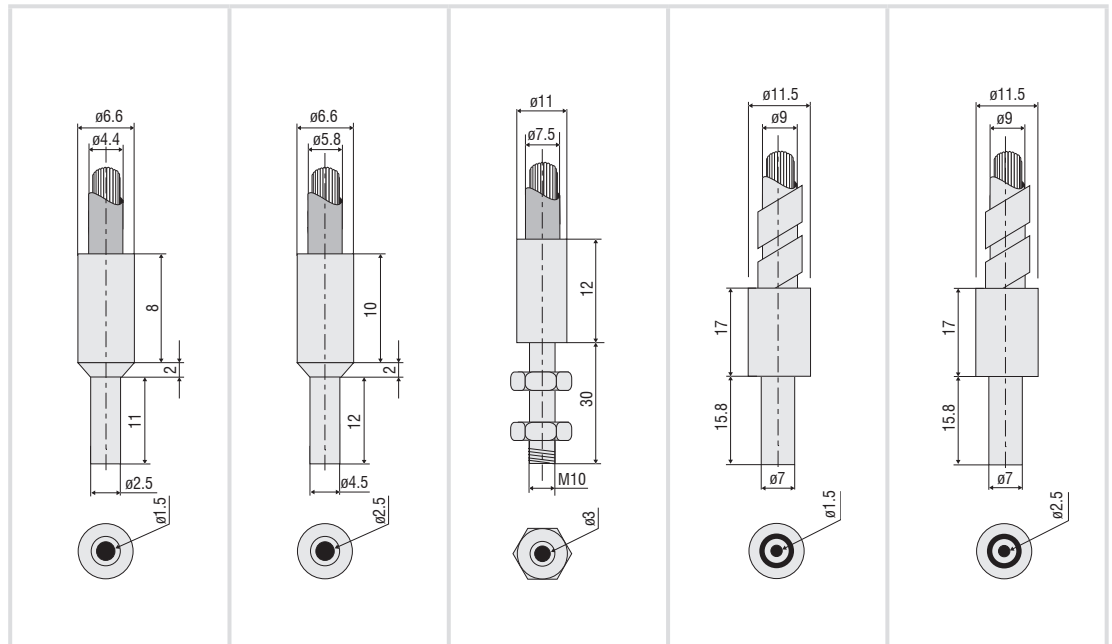




# More Precision

**optoCONTROL CLS1000** // Fiber optic sensor for industrial applications












Model		CFS3-A11	CFS3-A20	CFS3-C30	CFS3-M12-600	CFS3-M20-M
Article number		10810518	10810490	10811921	10810353	10810438
Sensor type		Transmission sensor				
Operating range (transmitter-receiver distance)	Start	1 mm				
	End	500 mm	1700 mm	2000 mm	90 mm	200 mm
Working distance (measuring object - receiver)		Measuring object can be freely positioned between transmitter and receiver				
Measurement geometry		0°;180°				
Min. target size <sup>1)</sup>		Ø0.1 µm	Ø0.2 µm	Ø0.3 µm	Ø0.05 µm	Ø0.1 µm
Connection		Screwable fiber optic cable via FA socket (M18x1),				
		Standard length 1.2 m; max. bending radius 13.2 mm	Standard length 1.2 m; max. bending radius 17.4 mm	Standard length 1.2 m; max. bending radius 22.5 mm	Length 0.6 m; max. bending radius 13.2 mm	Standard length 1.2 m; max. bending radius 15 mm
Mounting		FA (M18x1)				
Temperature range	Storage	Sensor head: -10 ... +80 °C; Optical fiber: -60 ... +180 °C				Sensor head: -10 ... +80 °C
	Operation					Fiber optic cable: -40 ... +300 °C
Humidity (non-condensing)		20 ... 80 % RH				20 ... 60 % RH
Protection class (DIN EN 60529)		IP64				IP40
Material	Sensor head	Stainless steel				
	Optical fibers	integrated glass fiber (Ø1.5 mm) and metal- silicone (T) sheathing	integrated glass fiber (Ø2.5 mm) and metal- silicone (T) sheathing	integrated glass fiber (Ø3.0 mm) and metal- silicone (T) sheathing	integrated glass fiber (Ø0.6 mm) and metal- silicone (T) sheathing	integrated glass fiber (Ø1.0 mm) and brass spiral hose chrome- plated (M)
Weight		90 g	160 g	280 g	48 g	100 g
Compatibility		compatible with all CLS and CFO controllers				
Special features		All variants are also available with different sheath, length 0.3 ... 10 m, vibration protection, IP protection, suitable for drag chains and available for temperature ranges up to 2000 °C. In combination with a pressure-tight feedthrough, a stainless steel sheath and T250° bonding, vacuum applications down to 10 <sup>-6</sup> mbar are also possible.				

<sup>1)</sup> These values apply over the entire operating range. Except the middle of the distance between the transmitter and receiver

# Controller

## optoCONTROL CLS1000

-  Large detection and operating ranges
-  Numerous teach-in modes for fast sensor adjustment
-  Detection of the finest structures
-  Extremely high resistance to ambient light up to 50,000 lx
-  LCD display for quick and easy configuration
-  Extremely robust and compact
-  Switchable NPN; PNP; PP



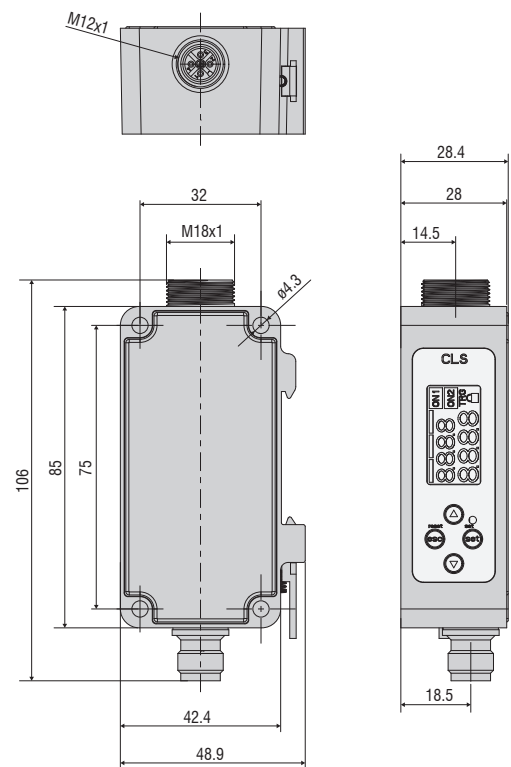
### Reliable presence detection and position control

The fiber optic sensor comprises a CFS sensor and a CLS1000 controller. The wide detection and operating ranges of up to 2000 mm make the fiber optic sensor ideal for the detection of components even at great distances.

The optoCONTROL CLS1000 optoelectronic fiber optic sensor is suitable for use in automation thanks to its variable switching outputs. The fiber optic sensor is used, for example, in position control and for position and presence detection.

The CLS1000 controller is available in five different versions: CLS1000-QN with antivalence function (normally open/normally closed), CLS1000-2Q with two switching outputs, CLS1000-OC with optocoupler, CLS1000-AU with voltage output and CLS1000-AI with current output. Each model is available in NPN, PNP or push-pull versions, each with or without trigger.

Due to the high resistance to ambient light and the possibility to adapt the controller in OEM applications, the CLS1000 can be used in almost all environments, regardless of high temperatures or confined installation spaces.



(dimensions in mm, not to scale)