



More Precision

opto**CONTROL** CLS1000 // Fiber optic sensor for industrial applications



Controller with antivalence function optoCONTROL CLS1000-QN



Two antivalent switching outputs
Q and QN

Switchable NPN, PNP, PP

Wire breakage protection thanks to
antivalent switching output

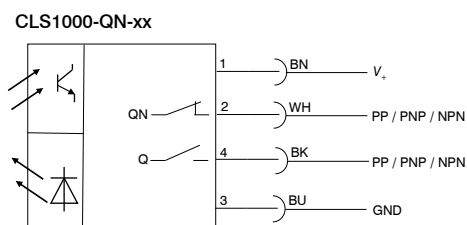
Model	CLS1000-QN-NPN	CLS1000-QN-PNP	CLS1000-QN-PP	CLS1000-QN-NPN-T	CLS1000-QN-PNP-T	CLS1000-QN-PP-T	
Article number	10085101	10085102	10085103	10085104	10085105	10085106	
Operating range	max. 2000 mm (depending on transmission sensor)						
Detection range	max. 1200 mm (depending on reflex sensor)						
Response time	100 μ s						
Switching frequency	2.5 kHz (depending on pulse/pause ratio)						
Temperature stability	$\leq 0.1\%$ FSO / K						
Light source	infrared LED 870 nm						
Permissible ambient light	50,000 lx						
Supply voltage ¹⁾	12 ... 30 VDC						
Max. current consumption	50 mA						
Switching output	switchable NPN; PNP; PP	2x NPN normally open/ normally closed (Q/QN; NO/NC)	2x PNP normally open/ normally closed (Q/QN; NO/NC)	2x PP normally open/ normally closed (Q/QN; NO/NC)	2x NPN normally open/ normally closed (Q/QN; NO/NC)	2x PNP normally open/ normally closed (Q/QN; NO/NC)	2x PP normally open/ normally closed (Q/QN; NO/NC)
Switching	light/dark switching (switchable)						
Signal input	-			Trigger In			
Connection	Optical	FA socket M18x1 for screwable optical fiber (length 0.3 m ... 15 m, min. bending radius 18 mm)					
	Electrical	4-pin M12 socket for power supply and signals (connection cable see accessories)			5-pin socket M12 for power supply and signals (connection cable see accessories)		
Mounting	DIN rail mounting, mounting adapter, (see accessories), mounting holes						
Temperature range	Storage	-10 ... +70°C					
	Operation	-5 ... +55°C					
Shock (DIN EN 60068-2-27)	20 g / 11 ms in 3 axes, two directions and 1000 shocks each						
Vibration (DIN EN 60068-2-6)	15 g / 10 ... 1000 Hz in 3 axes, 10 cycles each						
Protection class (DIN EN 60529)	IP67						
Material	Plastic housing (polycarbonate)						
Weight	200 g						
Compatibility	with all CFS sensors (FAR, FAD, FAZ and FAS)						
Control and indicator elements	Parameterization/operation via membrane keypad and OLED display on controller; LED for power on						
Special features	up to 7 teach-in modes; adjustable switching output functions on-delayed and off-delayed as well as pulse output; adjustable hysteresis 2 ... 25 %			up to 7 teach-in modes; adjustable switching output functions on-delay and off-delay as well as pulse output; adjustable hysteresis 2 ... 25%; variety of trigger types			

FSO = Full Scale Output

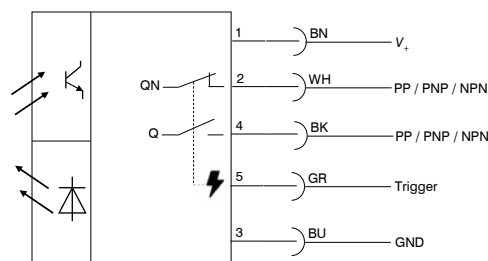
The specified data apply for a consistent room temperature of 22 °C, sensor is continuously in operation, open signal outputs.

¹⁾ Residual ripple $\leq 10\%$

Connection diagram



CLS1000-QN-xx-T



Accessories

optoCONTROL CLS1000

Art. no.	Model	Description
11245551	PC1000-2-T	Signal / supply cable, 2 m, 5-pin unshielded
11245300	PC1000-5-T	Signal / supply cable, 5 m, 5-pin unshielded
11245301	PC1000-10-T	Signal / supply cable, 10 m, 5-pin unshielded
11245302	PC1000-2	Signal / supply cable, 2 m, 4-pin unshielded
11245303	PC1000-5	Signal / supply cable, 5 m, 4-pin unshielded
11245304	PC1000-10	Signal / supply cable, 10 m, 4-pole unshielded
11245305	PC1000/90-2	Signal / supply cable, 2 m, 4-pole unshielded, 90° outlet
11245306	PC1000/90-5	Signal / supply cable, 5 m, 4-pin unshielded, 90° outlet
2420096	PS2031	Plug-in power supply universal 100 ... 240 V / 24 V / 1 A
2420062	PS2020	PS2020 Power supply unit 24 V
10811916		Pressure-tight feedthrough for vacuum