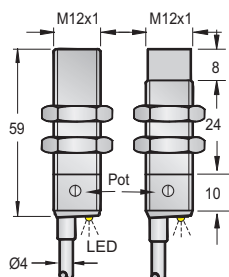


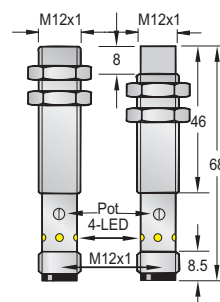
DC Capacitive Proximity Sensors- PTFE Body

Features

- M12mm diameter
- Sn=1 ... 3mm, shielded
2 ... 6mm, non-shielded
- PTFE housing case
- Short circuit protection
Overload protection
Reverse-polarity protection
- NPN, PNP Output
- NO, NC, NO+NC Function
- Cable version
M12 connector version
- IP67 protection



(Unit: mm)



(Unit: mm)

		Shielded	Non-shielded	Shielded	Non-shielded
PTFE Body	NPN-NO	CNBHA-1203N-A3W2	CNBHB-1206N-A3W2	CNBHA-1203N-AEW4	CNBHB-1206N-AEW4
	NPN-NC	CNBHA-1203N-B3W2	CNBHB-1206N-B3W2	CNBHA-1203N-BEW4	CNBHB-1206N-BEW4
	PNP-NO	CNBHA-1203P-A3W2	CNBHB-1206P-A3W2	CNBHA-1203P-AEW4	CNBHB-1206P-AEW4
	PNP-NC	CNBHA-1203P-B3W2	CNBHB-1206P-B3W2	CNBHA-1203P-BEW4	CNBHB-1206P-BEW4
	NPN-NO+NC	CNBHA-1203N-C4W2	CNBHB-1206N-C4W2	CNBHA-1203N-CEW4	CNBHB-1206N-CEW4
	PNP-NO+NC	CNBHA-1203P-C4W2	CNBHB-1206P-C4W2	CNBHA-1203P-CEW4	CNBHB-1206P-CEW4

General Data

Housing size	M12mm		M12mm	
	Shielded	Non-shielded	Shielded	Non-shielded
Installation type				
Sensing distance (Sn: mm)	1...3mm adjustable	2...6mm adjustable	1...3mm adjustable	2...6mm adjustable
Standard sensing object	Steel 12x12x1mm	Steel 18x18x1mm	Steel 12x12x1mm	Steel 18x18x1mm
Effective sensing distance (Sr: mm)	90 ... 110% of Sn		90 ... 110% of Sn	
Assured operating distance (Sa: mm)	0 ... 80% of Sn		0 ... 80% of Sn	
Hysteresis	<15%		<15%	
Housing material	PTFE		PTFE	
Operating voltage	10 ... 30VDC (55VDC can also be customized)		10 ... 30VDC (55VDC can also be customized)	

Electrical Data

Rated operating voltage	24VDC		24VDC	
Repeated accuracy	±10%		±10%	
Ripple	<10%		<10%	
No load current	10mA		10mA	
Max. Load current	200mA		200mA	
Leakage current	0.01mA		0.01mA	
Voltage drop	<2VDC	<2VDC	<2VDC	<2VDC
Switching frequency	100Hz	100Hz	100Hz	100Hz
Response time	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<10%		<10%	
Power indicator	No		No	
Function indicator	Yellow LED		Yellow LED	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	Yes		Yes	
Overload trip point	220mA		220mA	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	

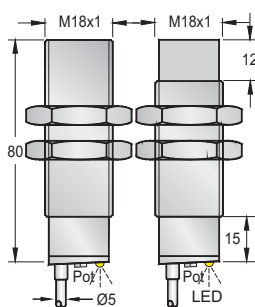
Mechanical Data

Sensing surface material	PTFE		PTFE	
Protection	IP67		IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2		IEC 60947-5-2	
Accessory	2 nuts		2 nuts	
Connection	2m PVC cable (Ø4 3x0.14mm ² /4x0.14mm ²)		Euro-Style 4-Pin M12 Connector	
Weight	Approx. 60g/55g		Approx. 25g/23g	

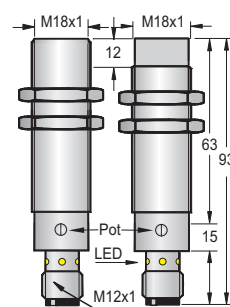
DC Capacitive Proximity Sensors- PTFE Body

Features

- M18mm diameter
- Sn=2 ... 8mm, shielded
2 ... 15mm, non-shielded
- PTFE housing case
- NPN, PNP Output
- NO, NC, NO+NC Function
- Short circuit protection
Overload protection
Reverse-polarity protection
- Cable version
M12 connector version
- IP67 protection



(Unit: mm)



(Unit: mm)

		Shielded		Non-shielded	
		Shielded	Non-shielded	Shielded	Non-shielded
PTFE Body	NPN-NO	CN1QE18C08A	CN1QF18C15A	CN1QE18C08H	CN1QF18C15H
	NPN-NC	CN1QE18D08A	CN1QF18D15A	CN1QE18D08H	CN1QF18D15H
	PNP-NO	CN1QE18A08A	CN1QF18A15A	CN1QE18A08H	CN1QF18A15H
	PNP-NC	CN1QE18B08A	CN1QF18B15A	CN1QE18B08H	CN1QF18B15H
	NPN-NO+NC	CN1QE18F08A	CN1QF18F15A	CN1QE18F08H	CN1QF18F15H
	PNP-NO+NC	CN1QE18E08A	CN1QF18E15A	CN1QE18E08H	CN1QF18E15H

General Data

	Ø18mm		Ø18mm	
	Shielded	Non-shielded	Shielded	Non-shielded
Housing size	Ø18mm			
Installation type	Shielded		Non-shielded	
Sensing distance(Sn: mm)	2...8mm adjustable		2...15mm adjustable	
Standard sensing object	Steel 24x24x1mm		Steel 45x45x1mm	
Effective sensing distance (Sr: mm)	90 ... 110% of Sn			
Assured operating distance(Sa: mm)	0 ... 80% of Sn			
Hysteresis	<15%			
Housing material	PTFE			
Operating voltage	10 ... 30VDC(55VDC can also be customized)			

Electrical Data

Rated operating voltage	24VDC		24VDC	
Repeated accuracy	±10%		±10%	
Ripple	<10%		<10%	
No load current	10mA		10mA	
Max. Load current	200mA		200mA	
Leakage current	0.01mA		0.01mA	
Voltage drop	<2VDC	<2VDC	<2VDC	<2VDC
Switching frequency	100Hz		100Hz	
Response time	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms
Rated insulation voltage	75VDC			
Operating temperature	-25°C ... +70°C			
Storage temperature	-40°C ... +80°C			
Temperature drift	<10%			
Power indicator	No			
Function indicator	Yellow LED			
Reverse polarity protection	Yes			
Short-circuit protection	Yes			
Overload trip point	220mA			
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4			

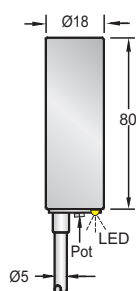
Mechanical Data

Sensing surface material	PTFE		PTFE	
Protection	IP67			
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2			
Accessory	2 nuts			
Connection	2m PVC cable (Ø5 3x0.34mm ² /4x0.34mm ²)		Euro-Style 4-Pin M12 Connector	
Weight	Approx. 115g/110g		Approx. 70g/69g	

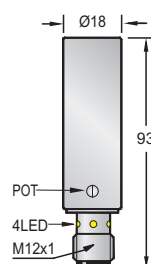
DC Capacitive Proximity Sensors- PTFE Body

Features

- Ø18mm diameter
- Sn=2 ... 8mm, shielded
2 ... 15mm, non-shielded
- PTFE housing case
- NPN, PNP Output
- NO, NC, NO+NC Function
- Short circuit protection
Overload protection
Reverse-polarity protection
- Cable version
M12 connector version
- IP67 protection



(Unit: mm)



(Unit: mm)

		Shielded		Non-shielded	
		Shielded	Non-shielded	Shielded	Non-shielded
PTFE Body	NPN-NO	CN1QE18C08A	CN1QF18C15A	CN1QE18C08H	CN1QF18C15H
	NPN-NC	CN1QE18D08A	CN1QF18D15A	CN1QE18D08H	CN1QF18D15H
	PNP-NO	CN1QE18A08A	CN1QF18A15A	CN1QE18A08H	CN1QF18A15H
	PNP-NC	CN1QE18B08A	CN1QF18B15A	CN1QE18B08H	CN1QF18B15H
	NPN-NO+NC	CN1QE18F08A	CN1QF18F15A	CN1QE18F08H	CN1QF18F15H
	PNP-NO+NC	CN1QE18E08A	CN1QF18E15A	CN1QE18E08H	CN1QF18E15H

General Data

	Ø18mm		Ø18mm	
	Shielded	Non-shielded	Shielded	Non-shielded
Housing size	Ø18mm		Ø18mm	
Installation type				
Sensing distance(Sn: mm)	2...8mm adjustable	2...15mm adjustable	2...8mm adjustable	2...15mm adjustable
Standard sensing object	Steel 24x24x1mm	Steel 45x45x1mm	Steel 24x24x1mm	Steel 45x45x1mm
Effective sensing distance (Sr: mm)	90 ... 110% of Sn		90 ... 110% of Sn	
Assured operating distance(Sa: mm)	0 ... 80% of Sn		0 ... 80% of Sn	
Hysteresis	<15%		<15%	
Housing material	PTFE		PTFE	
Operating voltage	10 ... 30VDC(55VDC can also be customized)		10 ... 30VDC(55VDC can also be customized)	

Electrical Data

Rated operating voltage	24VDC		24VDC	
Repeated accuracy	±10%		±10%	
Ripple	<10%		<10%	
No load current	10mA		10mA	
Max. Load current	200mA		200mA	
Leakage current	0.01mA		0.01mA	
Voltage drop	<2VDC	<2VDC	<2VDC	<2VDC
Switching frequency	100Hz	100Hz	100Hz	100Hz
Response time	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<10%		<10%	
Power indicator	No		No	
Function indicator	Yellow LED		Yellow LED	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	Yes		Yes	
Overload trip point	220mA		220mA	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	

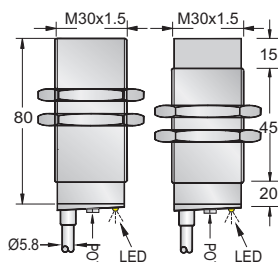
Mechanical Data

Sensing surface material	PTFE		PTFE	
Protection	IP67		IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2		IEC 60947-5-2	
Accessory	/		/	
Connection	2m PVC cable (Ø5 3x0.34mm ² /4x0.34mm ²)		Euro-Style 4-Pin M12 Connector	
Weight	Approx. 95g		Approx. 65g	

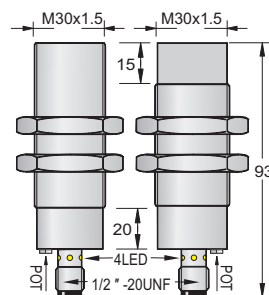
DC Capacitive Proximity Sensors- PTFE Body

Features

- M30mm diameter
- Sn=2 ... 20mm, shielded
2 ... 30mm, non-shielded
- PTFE housing case
- NPN, PNP Output
- NO, NC, NO+NC Function
- Short circuit protection
Overload protection
Reverse-polarity protection
- Cable version
M12 connector version
- IP67 protection



(Unit: mm)



(Unit: mm)

		Shielded	Non-shielded	Shielded	Non-shielded
PTFE Body	NPN-NO	CN1PE30C20A	CN1PF30C30A	CN1PE30C20H	CN1PF30C30H
	NPN-NC	CN1PE30D20A	CN1PF30D30A	CN1PE30D20H	CN1PF30D30H
	PNP-NO	CN1PE30A20A	CN1PF30A30A	CN1PE30A20H	CN1PF30A30H
	PNP-NC	CN1PE30B20A	CN1PF30B30A	CN1PE30B20H	CN1PF30B30H
	NPN-NO+NC	CN1PE30F20A	CN1PF30F30A	CN1PE30F20H	CN1PF30F30H
	PNP-NO+NC	CN1PE30E20A	CN1PF30E30A	CN1PE30E20H	C1NPF30E30H

General Data

	M30mm		M30mm	
	Shielded	Non-shielded	Shielded	Non-shielded
Housing size	M30mm		M30mm	
Installation type	M30mm		M30mm	
Sensing distance(Sn: mm)	2...20mm adjustable	2...30mm adjustable	2...20mm adjustable	2...30mm adjustable
Standard sensing object	Steel 60x60x1mm	Steel 90x90x1mm	Steel 60x60x1mm	Steel 90x90x1mm
Effective sensing distance (Sr: mm)	90 ... 110% of Sn		90 ... 110% of Sn	
Assured operating distance(Sa: mm)	0 ... 80% of Sn		0 ... 80% of Sn	
Hysteresis	<15%		<15%	
Housing material	PTFE		PTFE	
Operating voltage	10 ... 30VDC(55VDC can also be customized)		10 ... 30VDC(55VDC can also be customized)	

Electrical Data

	M30mm		M30mm	
	Shielded	Non-shielded	Shielded	Non-shielded
Rated operating voltage	24VDC		24VDC	
Repeated accuracy	±10%		±10%	
Ripple	<10%		<10%	
No load current	10mA		10mA	
Max. Load current	200mA		200mA	
Leakage current	0.01mA		0.01mA	
Voltage drop	<2VDC	<2VDC	<2VDC	<2VDC
Switching frequency	100Hz	100Hz	100Hz	100Hz
Response time	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms	1.5ms/1.5ms
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<10%		<10%	
Power indicator	No		No	
Function indicator	Yellow LED		Yellow LED	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	Yes		Yes	
Overload trip point	220mA		220mA	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	

Mechanical Data

	M30mm	M30mm
Sensing surface material	PTFE	
Protection	IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2	
Accessory	2 nuts	
Connection	2m PVC cable (Ø5.8 3x0.5mm ² /4x0.5mm ²)	Euro-Style 4-Pin M12 connector
Weight	Approx. 231g/219g	Approx. 137g/147g