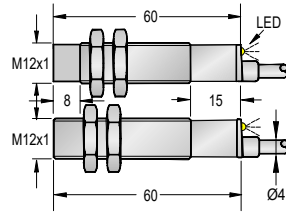
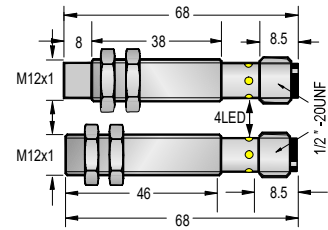


Features

- M12mm diameter
- Sn=2mm, shielded
4mm, non-shielded
- 20-250VAC/DC operating voltage
- Stainless steel housing case
- Stainless steel active sensing face
- AC/DC Output
- NO, NC Function
- Cable version
3 Pin M12 connector version
- IP67 Protection



(Unit: mm)



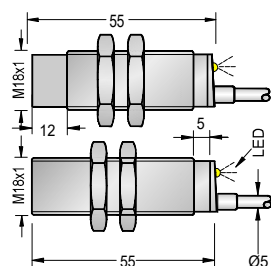
(Unit: mm)



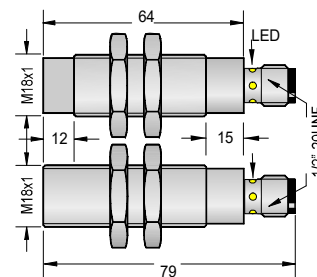
Connection		2m Cable		3 Pin M12 Connector	
Mounting		Shielded	Non-shielded	Shielded	Non-shielded
Steel Case	AC/DC-NO	M9CE12S02A	M9CF12S04A	M9CE12S02L	M9CF12S04L
	AC/DC-NC	M9CE12T02A	M9CF12T04A	M9CE12T02L	M9CF12T04L
General Data					
Housing size		M12mm		M12mm	
Installation type		Shielded	Non-shielded	Shielded	Non-shielded
Sensing distance(Sn: mm)		2mm	4mm	2mm	4mm
Standard sensing object		Steel 12x12x1mm	Steel 12x12x1mm	Steel 12x12x1mm	Steel 12x12x1mm
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		Stainless steel		Stainless steel	
Operating voltage		20 ... 250VAC/DC		20 ... 250VAC/DC	
Electrical Data					
Rated operating voltage		110VAC		110VAC	
Repeated accuracy		±10%		±10%	
Surge current		2.2A(20ms)		2.2A(20ms)	
No load current		<2.5mA		<2.5mA	
Max. Load current		100mA		100mA	
Leakage current		<2.5mA		<2.5mA	
Voltage drop		<10VAC,8VDC		<10VAC,8VDC	
Switching frequency		25Hz/AC,40Hz/DC		25Hz/AC,40Hz/DC	
Response time		10ms/10ms		10ms/10ms	
Rated insulation voltage		250VAC		250VAC	
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		No		No	
Short-circuit protection		No		No	
Min. load current		5mA		5mA	
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		Stainless steel		Stainless steel	
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 3x0.34mm²)		3 Pin M12 ½"-20UNF connector	
Weight		Approx. 77g		Approx. 32g	

Features

- M18mm diameter
- Sn=5mm, shielded
8mm, non-shielded
- 20-250VAC/DC operating voltage
- Stainless steel housing case
- Stainless steel active sensing face
- AC/DC Output
- NO, NC Function
- Cable version
3 Pin M12 connector version
- IP67 Protection



(Unit: mm)



(Unit: mm)



Connection		2m Cable		3 Pin M12 Connector	
Mounting		Shielded	Non-shielded	Shielded	Non-shielded
Steel Case	AC/DC-NO	M9CE18S05A	M9CF18S08A	M9CE18S05L	M9CF18S08L
	AC/DC-NC	M9CE18T05A	M9CF18T08A	M9CE18T05L	M9CF18T08L

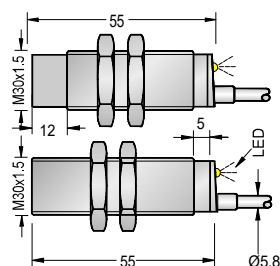
General Data					
Housing size	M18mm		M18mm		
Installation type	Shielded	Non-shielded	Shielded	Non-shielded	
Sensing distance(Sn: mm)	5mm	8mm	5mm	8mm	
Standard sensing object	Steel 18x18x1mm	Steel 24x24x1mm	Steel 18x18x1mm	Steel 24x24x1mm	
Effective sensing distance (Sr: mm)	90 ... 110% of Sn		90 ... 110% of Sn		
Assured operating distance(Sa: mm)	0 ... 80% of Sn		0 ... 80% of Sn		
Hysteresis	<15%		<15%		
Housing material	Stainless steel		Stainless steel		
Operating voltage	20 ... 250VAC/DC		20 ... 250VAC/DC		

Electrical Data		
Rated operating voltage	110VAC	110VAC
Repeated accuracy	±10%	±10%
Surge current	2.2A(20ms)	2.2A(20ms)
No load current	<2.5mA	<2.5mA
Max. Load current	200mA	200mA
Leakage current	<2.5mA	<2.5mA
Voltage drop	<10VAC, 8VDC	<10VAC, 8VDC
Switching frequency	25Hz/AC, 40Hz/DC	25Hz/AC, 40Hz/DC
Response time	10ms/10ms	10ms/10ms
Rated insulation voltage	250VAC	250VAC
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	No	No
Short-circuit protection	No	No
Min. load current	5mA	5mA
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	

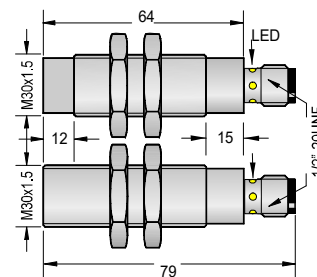
Mechanical Data		
Sensing surface material	Stainless steel	Stainless steel
Protection	IP67	IP67
Shock rating	Shock, half-sinus, 30gn, 11ms	Shock, half-sinus, 30gn, 11ms
Vibration rating	55Hz, 1mm ampl., 3x30min.	55Hz, 1mm ampl., 3x30min.
EMC	IEC 60947-5-2	IEC 60947-5-2
Accessory	2 nuts	2 nuts
Connection	2m PVC cable (Ø5 3x0.34mm ²)	3 Pin M12 1/2"-20UNF connector
Weight	Approx. 162g	Approx. 70g

Features

- M30mm diameter
- Sn=10mm,shielded
15mm,non-shielded
- 20-250VAC/DC operating voltage
- Stainless steel housing case
- Stainless steel active sensing face
- AC/DC Output
- NO,NC Function
- Cable version
3 Pin M12 connector version
- IP67 Protection



(Unit: mm)



(Unit: mm)



Connection		2m Cable		3 Pin M12 Connector	
Mounting		Shielded	Non-shielded	Shielded	Non-shielded
Steel Case	AC/DC-NO	M9CE30S10A	M9CF30S15A	M9CE30S10L	M9CF30S15L
	AC/DC-NC	M9CE30T10A	M9CF30T15A	M9CE30T10L	M9CF30T15L

General Data		M30mm		M30mm	
Housing size		M30mm		M30mm	
Installation type		Shielded	Non-shielded	Shielded	Non-shielded
Sensing distance(Sn: mm)		10mm	15mm	10mm	15mm
Standard sensing object		Steel 30x30x1mm	Steel 45x45x1mm	Steel 30x30x1mm	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		Stainless steel		Stainless steel	
Operating voltage		20 ... 250VAC/DC		20 ... 250VAC/DC	

Electrical Data		M30mm		M30mm	
Rated operating voltage		110VAC		110VAC	
Repeated accuracy		±10%		±10%	
Surge current		2.2A(20ms)		2.2A(20ms)	
No load current		<2.5mA		<2.5mA	
Max. Load current		200mA		200mA	
Leakage current		<2.5mA		<2.5mA	
Voltage drop		<10VAC,8VDC		<10VAC,8VDC	
Switching frequency		25Hz/AC,40Hz/DC		25Hz/AC,40Hz/DC	
Response time		10ms/10ms		10ms/10ms	
Rated insulation voltage		250VAC		250VAC	
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		No		No	
Short-circuit protection		No		No	
Min. load current		5mA		5mA	
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		Stainless steel		Stainless steel	
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 (Ø5.8 3x0.5mm ²)		3 Pin M12 1/2"-20UNF connector	
Weight		Approx. 248g		Approx. 147g	