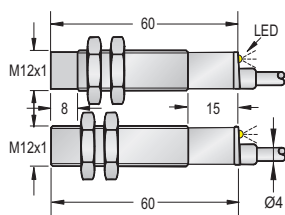


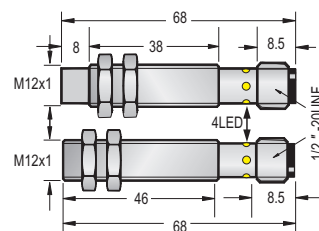


Features

- 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	

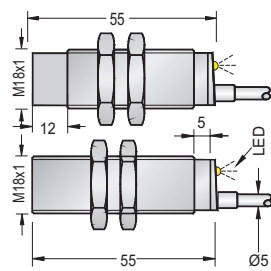
Electrical Data		
Rated operating voltage	110VAC	
Repeated accuracy	±10%	
Surge current	2.2A(20ms)	
No load current	<2.5mA	
Max. Load current	100mA	
Leakage current	<2.5mA	
Voltage drop	<10VAC, 8VDC	
Switching frequency	25Hz/AC, 40Hz/DC	
Response time	10ms/10ms	
Rated insulation voltage	250VAC	
Operating temperature	-25°C ... +70°C	
Storage temperature	-40°C ... +80°C	
Temperature drift	<10%	
Power indicator	No	
Function indicator	Yellow LED	
Reverse polarity protection	No	
Short-circuit protection	No	
Min. load current	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	
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 (Ø4 3x0.34mm ²)	
Weight	Approx. 77g	

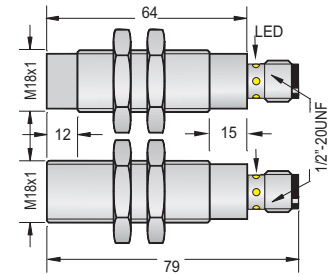


Features

- 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 18x18x1mm	Steel 18x18x1mm	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		Stainless steel		Stainless steel	
Operating voltage		20 ... 250VAC/DC		20 ... 250VAC/DC	

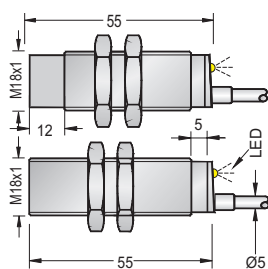
Electrical Data		
Rated operating voltage	110VAC	
Repeated accuracy	±10%	
Surge current	2.2A(20ms)	
No load current	<2.5mA	
Max. Load current	200mA	
Leakage current	<2.5mA	
Voltage drop	<10VAC, 8VDC	
Switching frequency	25Hz/AC, 40Hz/DC	
Response time	10ms/10ms	
Rated insulation voltage	250VAC	
Operating temperature	-25°C ... +70°C	
Storage temperature	-40°C ... +80°C	
Temperature drift	<10%	
Power indicator	No	
Function indicator	Yellow LED	
Reverse polarity protection	No	
Short-circuit protection	No	
Min. load current	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	
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 3x0.34mm ²)	
Weight	Approx. 162g	

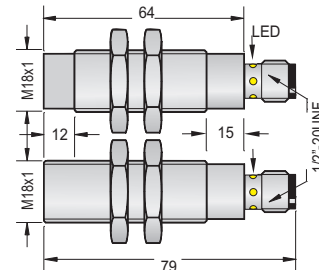


Features

- 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	M9CE18S05A	M9CF18S08A	M9CE18S05L	M9CF18S08L
	AC/DC-NC	M9CE18T05A	M9CF18T08A	M9CE18T05L	M9CF18T08L

General Data					
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		
Rated operating voltage	110VAC	
Repeated accuracy	±10%	
Surge current	2.2A(20ms)	
No load current	<2.5mA	
Max. Load current	200mA	
Leakage current	<2.5mA	
Voltage drop	<10VAC,8VDC	
Switching frequency	25Hz/AC,40Hz/DC	
Response time	10ms/10ms	
Rated insulation voltage	250VAC	
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	No	
Short-circuit protection	No	
Min. load current	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	
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)	
Weight	Approx. 248g	