

PART N-01 ~ N-27

Diameter

● Shielded ○ non-Shielded

Switching Distance Sn mm

Housing Material

● With LED ○ Without LED

Dimensions (unit: mm)

Operating Voltage

Ripple

No Load Current

Max. Load Current

Leakge Current

Surge Current

Min. Load Current

Voltage Drop

Switching Frequency

Response Time

Switching Hysteresis

Repeat Accuracy

Protection Category

Operating Temperature

Temperature Drift

Short Circuit Protection

Overload Trip Point

Time Delay Before Availability

EMC

Shock / Vibration

Material Active Face

DC 3 wire 10-30V NPN N.O.

DC 3 wire 10-30V NPN N.C.

DC 3 wire 10-30V PNP N.O.

DC 3 wire 10-30V PNP N.C.

DC 4 wire 10-30V Changeover PNP (N.O. & N.C.)

DC 4 wire 10-30V Changeover NPN (N.O. & N.C.)

DC 2 wire 10-60V N.O.

DC 2 wire 10-60V N.C.

DC 3 wire 10-55v NPN N.O. or NAMUR

DC 3 wire 10-55v NPN N.C.

DC 3 wire 10-55v PNP N.O.

DC 3 wire 10-55v PNP N.C.

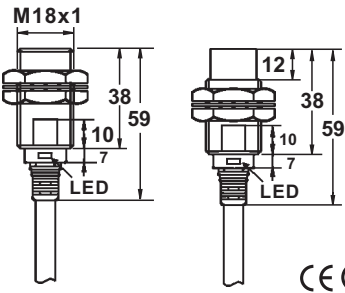
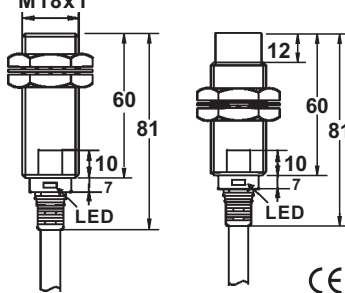
Remark

Cable 2M (PUR)

Weight

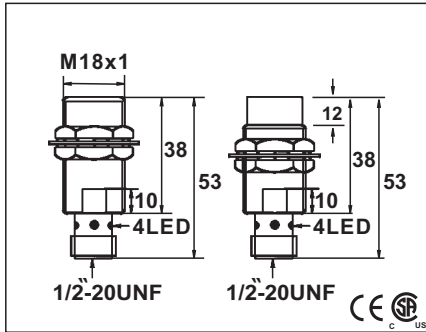
Please put each catalog page in the blank. The specification on the left will help your reading.

AC METAL FACE FERROUS/NON-FERROUS SENSING SENSOR

Diameter	M 18		M18																			
● Shielded ○ non-Shielded	● ○		● ○																			
Switching Distance Sn mm	5 mm 8 mm		5 mm 8 mm																			
Housing Material	SUS 303 stainless steel		SUS 303 stainless steel																			
● With LED ○ Without LED	● ○		● ○																			
Dimensions (unit: mm)																						
Operating Voltage	20-250VAC		20-250VAC																			
Ripple	-		-																			
No Load Current	<1.8mA		<1.8mA																			
Max. Load Current	400mA		400mA																			
Leakge Current	<1.8mA		<1.8mA																			
Surge Current	5A(20ms)		5A(20ms)																			
Min. Load Current	5mA		5mA																			
Voltage Drop	<8VAC AT 400MA		<8VAC AT 400MA																			
Switching Frequency	<25HZ		<25HZ																			
Response Time	10ms/10ms		10ms/10ms																			
Switching Hysteresis	<15%(Sr)		<15%(Sr)																			
Repeat Accuracy	<1.0%(Sr)		<1.0%(Sr)																			
Protection Category	IP67		IP67																			
Operating Temperature	-25°C - +70°C		-25°C - +70°C																			
Temperature Drift	<10%(Sr)		<10%(Sr)																			
Short Circuit Protection	NO		NO																			
Overload Trip Point	-		-																			
Time Delay Before Availability	160MT		160MT																			
EMC	RFI>10V/m / EFT>1KV / ESD>8KV (contact)		RFI>10V/m / EFT>1KV / ESD>8KV (contact)																			
Shock / Vibration	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2																			
Material Active Face	SUS 303 stainless steel		SUS 303 stainless steel																			
DC 3 wire 10-30V NPN N.O. FERROUS ONLY SENSING																						
DC 3 wire 10-30V NPN N.C. FERROUS ONLY SENSING																						
DC 3 wire 10-30V PNP N.O. FERROUS ONLY SENSING																						
DC 3 wire 10-30V PNP N.C. FERROUS ONLY SENSING																						
DC 3 wire 10-30V NPN N.O. NON-FERROUS ONLY SENSING																						
DC 3 wire 10-30V NPN N.C. NON-FERROUS ONLY SENSING																						
DC 3 wire 10-30V PNP N.O. NON-FERROUS ONLY SENSING																						
DC 3 wire 10-30V PNP N.C. NON-FERROUS ONLY SENSING																						
AC 2 wire 20-250V N.O. FERROUS ONLY SENSING	FCS1-1805A-A3S2/FE-W 11	FCS2-1808A-A3S2/FE-W	FCS1-1805A-A3L2/FE-W 11	FCS2-1808A-A3L2/FE-W																		
AC 2 wire 20-250V N.C. FERROUS ONLY SENSING	FCS1-1805A-B3S2/FE-W 12	FCS2-1808A-B3S2/FE-W	FCS1-1805A-B3L2/FE-W 12	FCS2-1808A-B3L2/FE-W																		
AC 2 wire 20-250V N.O. NON-FERROUS ONLY SENSING	FCS1-1805A-A3S2/NFE-W 11	FCS2-1808A-A3S2/NFE-W	FCS1-1805A-A3L2/NFE-W 11	FCS2-1808A-A3L2/NFE-W																		
AC 2 wire 20-250V N.C. NON-FERROUS ONLY SENSING	FCS1-1805A-B3S2/NFE-W 12	FCS2-1808A-B3S2/NFE-W	FCS1-1805A-B3L2/NFE-W 12	FCS2-1808A-B3L2/NFE-W																		
AC/DC 2 wire 20-250V N.O. FERROUS ONLY SENSING																						
AC/DC 2 wire 20-250V N.C. FERROUS ONLY SENSING																						
AC/DC 2 wire 20-250V N.O. NON-FERROUS ONLY SENSING																						
AC/DC 2 wire 20-250V N.C. NON-FERROUS ONLY SENSING																						
Remark	xxxx-xxxx-xxxx/FE Target material: Ferrous Target material: Non-Ferrous		Correction factors <table border="1"> <thead> <tr> <th>Series</th> <th>Mild steel</th> <th>Stainless steel</th> <th>Aluminum</th> <th>Copper</th> <th>Brass</th> </tr> </thead> <tbody> <tr> <td>FE</td> <td>1</td> <td>0.7-0.9</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>NFE</td> <td>0</td> <td>0</td> <td>1</td> <td>1.1</td> <td>0.9</td> </tr> </tbody> </table>		Series	Mild steel	Stainless steel	Aluminum	Copper	Brass	FE	1	0.7-0.9	0	0	0	NFE	0	0	1	1.1	0.9
Series	Mild steel	Stainless steel	Aluminum	Copper	Brass																	
FE	1	0.7-0.9	0	0	0																	
NFE	0	0	1	1.1	0.9																	
Cable 2M (PVC)	5.8φ3x0.5		5.8φ3x0.5																			
Weight	Approx.132 g	Approx.134 g	Approx.153 g	Approx.144 g																		

AC METAL FACE FERROUS/NON-FERROUS SENSING SENSOR

M 18	
●	○
5 mm	8 mm
SUS 303 stainless steel	
●	



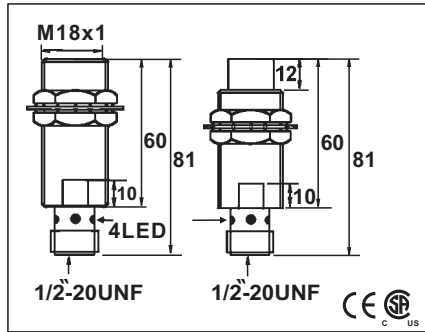
20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 200MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

FCS1-1805A-AUS3/FE-W	52	FCS2-1808A-AUS3/FE-W	
FCS1-1805A-BUS3/FE-W	52	FCS2-1808A-BUS3/FE-W	
FCS1-1805A-AUS3/NFE-W	52	FCS2-1808A-AUS3/NFE-W	
FCS1-1805A-BUS3/NFE-W	52	FCS2-1808A-BUS3/NFE-W	

xxxx-xxxx-xxxx/FE
 xxx-xxxx-xxxx/NFE
 Target material: Ferrous
 Target material: Non-Ferrous

Approx.50 g	Approx.50 g
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M 18	
●	○
5 mm	8mm
SUS 303 stainless steel	
●	



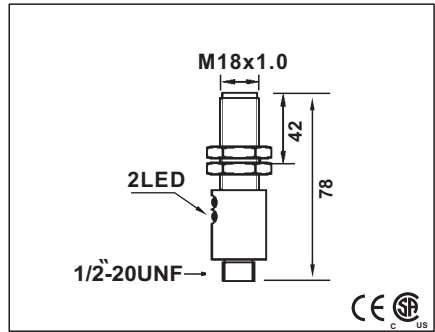
20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 200MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

FCS1-1805A-AUL3/FE-W	52	FCS2-1808A-AUL3/FE-W	
FCS1-1805A-BUL3/FE-W	52	FCS2-1808A-BUL3/FE-W	
FCS1-1805A-AUL3/NFE-W	52	FCS2-1808A-AUL3/NFE-W	
FCS1-1805A-BUL3/NFE-W	52	FCS2-1808A-BUL3/NFE-W	

xxxx-xxxx-xxxx/FE
 xxx-xxxx-xxxx/NFE
 Target material: Ferrous
 Target material: Non-Ferrous

Approx.94 g	Approx.91 g
-------------	-------------

M 18	
●	
5 mm	
SUS 303 stainless steel	
●	



20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 200MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

FCS1-1805A-AUS3/2/FE-W			52
FCS1-1805A-BUS3/2/FE-W			52
FCS1-1805A-AUS3/2/NFE-W			52
FCS1-1805A-BUS3/2/NFE-W			52

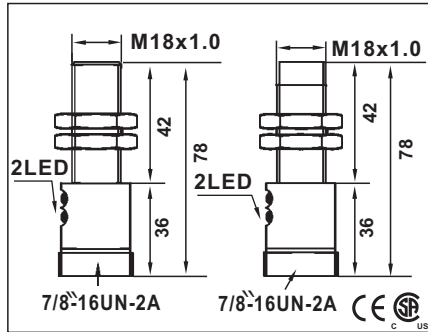
Correction factors

Series	Mild steel	Stainless steel	Aluminum	Copper	Brass
FE	1	0.7-0.9	0	0	0
NFE	0	0	1	1.1	0.9

Approx.94 g	
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AC METAL FACE FERROUS/NON-FERROUS SENSING SENSOR

M 18	
●	○
5 mm	8 mm
SUS 303 stainless steel	
●	

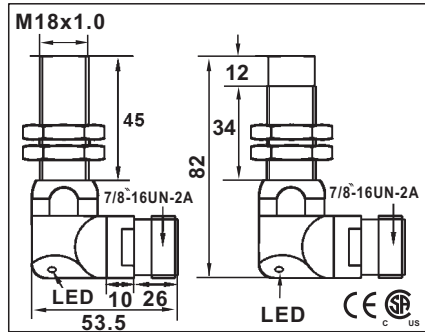


20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 200MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

FCS1-1805A-AZS3/2/FE-W	61	FCS2-1808A-AZS3/2/FE-W	
FCS1-1805A-BZS3/2/FE-W	61	FCS2-1808A-BZS3/2/FE-W	
FCS1-1805A-AZS3/2/NFE-W	61	FCS2-1808A-AZS3/2/NFE-W	
FCS1-1805A-BZS3/2/NFE-W	61	FCS2-1808A-BZS3/2/NFE-W	

Approx.251 g	

M 18	
●	○
5 mm	8 mm
SUS 303 stainless steel	
●	



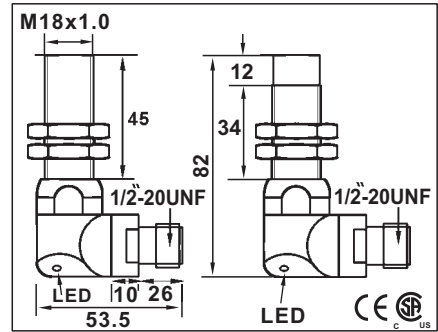
20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 400MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

FCS1-1805A-AZL3Y/FE-W	61	FCS2-1808A-AZL3Y/FE-W	
FCS1-1805A-BZL3Y/FE-W	61	FCS2-1808A-BZL3Y/FE-W	
FCS1-1805A-AZL3Y/NFE-W	61	FCS2-1808A-AZL3Y/NFE-W	
FCS1-1805A-BZL3Y/NFE-W	61	FCS2-1808A-BZL3Y/NFE-W	

xxxx-xxxx-xxxx/FE		Target material: Ferrous
xxxx-xxxx-xxxx/NFE		

Approx.251 g		Approx.283 g
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M 18	
●	○
5 mm	8 mm
SUS 303 stainless steel	
●	





20-250VAC	
-	
<1.8mA	
400mA	
<1.8mA	
5A(20ms)	
5mA	
<8VAC AT 400MA	
<25HZ	
10ms/10ms	
<15%(Sr)	
<1.0%(Sr)	
IP67	
-25°C - +70°C	
<10%(Sr)	
NO	
-	
160MT	
RFI>10V/m / EFT>1KV / ESD>8KV (contact)	
IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
SUS 303 stainless steel	

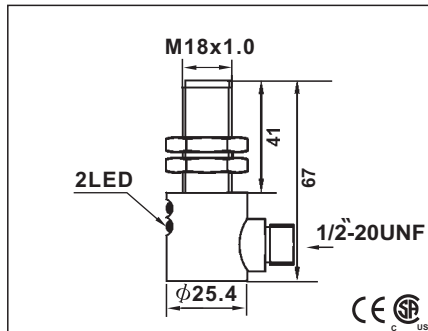
FCS1-1805A-AUL3Y/FE-W	52	FCS2-1808A-AUL3Y/FE-W	
FCS1-1805A-BUL3Y/FE-W	52	FCS2-1808A-BUL3Y/FE-W	
FCS1-1805A-AUL3Y/NFE-W	52	FCS2-1808A-AUL3Y/NFE-W	
FCS1-1805A-BUL3Y/NFE-W	52	FCS2-1808A-BUL3Y/NFE-W	

Correction factors					
Series	Mild steel	Stainless steel	Aluminum	Copper	Brass
FE	1	0.7-0.9	0	0	0
NFE	0	0	1	1.1	0.9

Approx.251 g		Approx.283 g
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AC METAL FACE FERROUS/NON-FERROUS SENSING SENSOR

M 18

5 mm
SUS 303 stainless steel






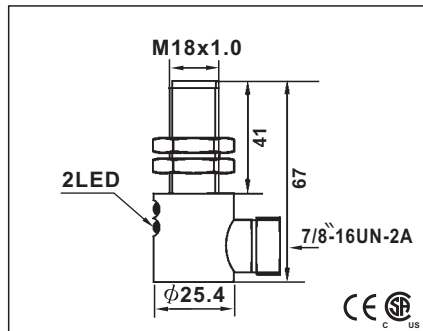
20-250VAC
-
<1.8mA
400mA
<1.8mA
5A(20ms)
5mA
<8VAC AT 200MA
<25HZ
10ms/10ms
<15%(Sr)
<1.0%(Sr)
IP67
-25°C - +70°C
<10%(Sr)
NO
-
160MT
RFI>10V/m / EFT>1KV / ESD>8KV (contact)
IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2
SUS 303 stainless steel

FCS1-1805A-AUS3Y/2/FE-W	52
FCS1-1805A-BUS3Y/2/FE-W	52
FCS1-1805A-AUS3Y/2/NFE-W	52
FCS1-1805A-BUS3Y/2/NFE-W	52

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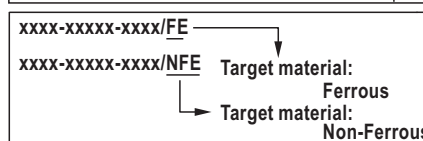
Approx.251 g

M 18

5 mm
SUS 303 stainless steel






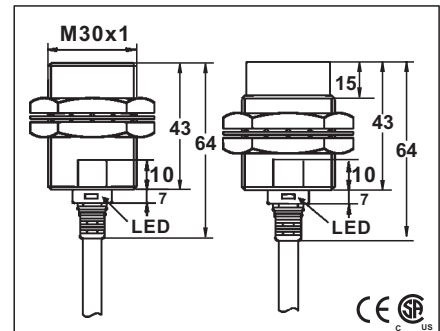
20-250VAC
-
<1.8mA
400mA
<1.8mA
5A(20ms)
5mA
<8VAC AT 200MA
<25HZ
10ms/10ms
<15%(Sr)
<1.0%(Sr)
IP67
-25°C - +70°C
<10%(Sr)
NO
-
160MT
RFI>10V/m / EFT>1KV / ESD>8KV (contact)
IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2
SUS 303 stainless steel

FCS1-1805A-AZS3/FE-W	61
FCS1-1805A-BZS3/FE-W	61
FCS1-1805A-AZS3/NFE-W	61
FCS1-1805A-BZS3/NFE-W	61



Approx.260 g

M 30

10 mm
SUS 303 stainless steel




20-250VAC
-
<1.8mA
400mA
<1.8mA
5A(20ms)
5mA
<8VAC at 400MA
<25HZ
10ms/10ms
<15%(Sr)
<1.0%(Sr)
IP67
-25°C - +70°C
<10%(Sr)
NO
-
160MT
RFI>8V/m / EFT>1KV / ESD>8KV (contact)
IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2
SUS 303 stainless steel

FCS1-3010A-A3S2/FE-W	11	FCS2-3015A-A3S2/FE-W	
FCS1-3010A-B3S2/FE-W	12	FCS2-3015A-B3S2/FE-W	
FCS1-3010A-A3S2/NFE-W	11	FCS2-3015A-A3S2/NFE-W	
FCS1-3010A-B3S2/NFE-W	12	FCS2-3015A-B3S2/NFE-W	

Correction factors					
Series	Mild steel	Stainless steel	Aluminum	Copper	Brass
FE	1	0.7-0.9	0	0	0
NFE	0	0	1	1.1	0.9

5.8φ3x0.5	
Approx.217 g	Approx.207 g

