





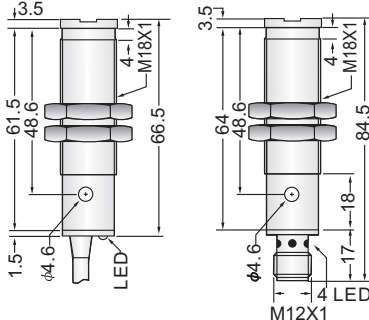
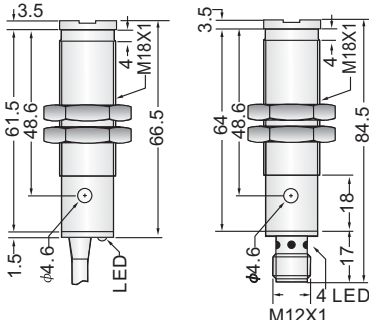
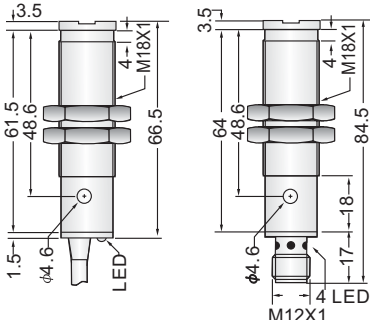



M18 DC WITH LIGHT ON OR DARK ON PROGRAMMABLE OUTPUT


M18 Diffuse mode		M18 Retro-reflective mode		M18 Retro-reflective mode (With Polarizing Filters)													
																	
150mm		3m		1m													
																	
CE		CE		CE													
10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC												
≤10%	≤10%	≤10%	≤10%	≤10%	≤10%												
±10%Sn	±10%Sn	±10%Sn	±10%Sn	±10%Sn	±10%Sn												
10%	10%	10%	10%	10%	10%												
Infrared(880nm)	Infrared(880nm)	Infrared(880nm)	Infrared(880nm)	Red(660nm)	Red(660nm)												
NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)												
Light on or Dark on (programmable)	Light on or Dark on (programmable)	Light on or Dark on (programmable)	Light on or Dark on (programmable)	Light on or Dark on (programmable)	Light on or Dark on (programmable)												
200mA	200mA	200mA	200mA	200mA	200mA												
30mA or less	30mA or less	30mA or less	30mA or less	30mA or less	30mA or less												
≤2.5V	≤2.5V	≤2.5V	≤2.5V	≤2.5V	≤2.5V												
Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum												
1mS	1mS	1mS	1mS	1mS	1mS												
Yes	Yes	Yes	Yes	Yes	Yes												
Yes	Yes	Yes	Yes	Yes	Yes												
-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C												
35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH												
>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux												
IP67	IP67	IP67	IP67	IP67	IP67												
PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass												
10x10cm white paper	D51 Mirror	D51 Mirror	D51 Mirror	D51 Mirror	D51 Mirror												
<table border="1"> <tr> <td>F1CDM180150NSI4A2 A18</td> <td>F1CDM180150NSIEA4 A19</td> </tr> <tr> <td>F1CDM180150PSI4A2 A20</td> <td>F1CDM180150PSIEA4 A21</td> </tr> </table>		F1CDM180150NSI4A2 A18	F1CDM180150NSIEA4 A19	F1CDM180150PSI4A2 A20	F1CDM180150PSIEA4 A21	<table border="1"> <tr> <td>F1CLM183000NSI4A2 A18</td> <td>F1CLM183000NSIEA4 A19</td> </tr> <tr> <td>F1CLM183000PSI4A2 A20</td> <td>F1CLM183000PSIEA4 A21</td> </tr> </table>		F1CLM183000NSI4A2 A18	F1CLM183000NSIEA4 A19	F1CLM183000PSI4A2 A20	F1CLM183000PSIEA4 A21	<table border="1"> <tr> <td>F1CLM181000NSI4A2/F A18</td> <td>F1CLM181000NSIEA4/FA19</td> </tr> <tr> <td>F1CLM181000PSI4A2/F A20</td> <td>F1CLM181000PSIEA4/FA21</td> </tr> </table>		F1CLM181000NSI4A2/F A18	F1CLM181000NSIEA4/FA19	F1CLM181000PSI4A2/F A20	F1CLM181000PSIEA4/FA21
F1CDM180150NSI4A2 A18	F1CDM180150NSIEA4 A19																
F1CDM180150PSI4A2 A20	F1CDM180150PSIEA4 A21																
F1CLM183000NSI4A2 A18	F1CLM183000NSIEA4 A19																
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F1CLM181000NSI4A2/F A18	F1CLM181000NSIEA4/FA19																
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F1CDP180150NSI4A2 A18	F1CDP180150NSIEA4 A19																
F1CDP180150PSI4A2 A20	F1CDP180150PSIEA4 A21																
F1CLP183000NSI4A2 A18	F1CLP183000NSIEA4 A19																
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F1CLP181000NSI4A2/F A18	F1CLP181000NSIEA4/FA19																
F1CLP181000PSI4A2/F A20	F1CLP181000PSIEA4/FA21																
																	
2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g	2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g	2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g												


M18A DC WITH N.O.+N.C. PROGRAMMABLE OUTPUT

Type	M18		M18		
Sensing mode	Through-beam mode		Diffuse mode		
Sensing picture					
Switching distance(sn)	15m		500mm		
Picture					
Nominal Voltage	10-30VDC		10-30VDC		
Residual Ripple	≤10%		≤10%		
Tolerance	±10%Sn		±10%Sn		
Hysteresis	10%		10%		
Emission	Infrared(880nm)		Infrared(880nm)		
Output	NPN or PNP (programmable)		NPN or PNP (programmable)		
Contact	N.O. & N.C. (programmable)		N.O. & N.C. (programmable)		
Max. Output Current	200mA		200mA		
No Load Current	30mA or less		30mA or less		
Voltage Drop(Sensor On)	≤2.5V		≤2.5V		
Sensitivity Adjustment	Trimmer 1 tum		Trimmer 1 tum		
Response Time	1mS		1mS		
Short Circuit Protection	Yes		Yes		
Electric Protections	Yes		Yes		
Temperature Limits	-25 ~ +55°C		-25 ~ +55 °C		
Ambient humidity	35 to 85% RH		35 to 85% RH		
Light Immunity	>10.000Lux		>10.000Lux		
Protection Degree	IP67		IP67		
Housing Material	PBT Plastic or Nickel plated brass		PBT Plastic or Nickel plated brass		
Sensing object	φ8mm or more		20x20cm white paper		
Wiring diagram(see page 21-16)					
Brass Housing	Emitter :	F1CTM18015MDEI3B2-A A28	F1CTM18015MDEIEB4-A A29	F1CDM180500NSI4A2-A A24	F1CDM180500NSIEA4-A A25
	NPN N.O.+N.C.	F1CTM18015MNSI4A2-A A24	F1CTM18015MNSIEA4-A A25	F1CDM180500PSI4A2-A A26	F1CDM180500PSIEA4-A A27
	PNP N.O.+N.C.	F1CTM18015MPSI4A2-A A26	F1CTM18015MPSIEA4-A A27		
Plastic Housing	Emitter :	F1CTP18015MDEI3B2-A A28	F1CTP18015MDEIEB4-A A29	F1CDP180500NSI4A2-A A24	F1CDP180500NSIEA4-A A25
	NPN N.O.+N.C.	F1CTP18015MNSI4A2-A A24	F1CTP18015MNSIEA4-A A25	F1CDP180500PSI4A2-A A26	F1CDP180500PSIEA4-A A27
	PNP N.O.+N.C.	F1CTP18015MPSI4A2-A A26	F1CTP18015MPSIEA4-A A27		
Dimensions (unit: mm)					
Connect	2m PVC (φ4x0.25mm ²)	M12 Euro style	2m PVC (φ4x0.25mm ²)	M12 Euro style	
Weight	Approx.112 g	Approx.75 g	Approx.112 g	Approx.75 g	

M18A DC WITH N.O.+N.C. PROGRAMMABLE OUTPUT

M18
Diffuse mode

150mm

M18
Retro-reflective mode

3m

M18
Retro-reflective mode (With Polarizing Filters)

1m



10-30VDC
≤10%
±10%Sn
10%
Infrared(880nm)
NPN or PNP (programmable)
N.O. & N.C. (programmable)
200mA
30mA or less
≤2.5V
Trimmer 1 tum
1mS
Yes
Yes
-25 ~ +55 °C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
10x10cm white paper

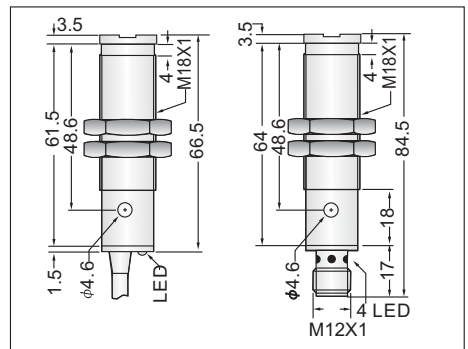
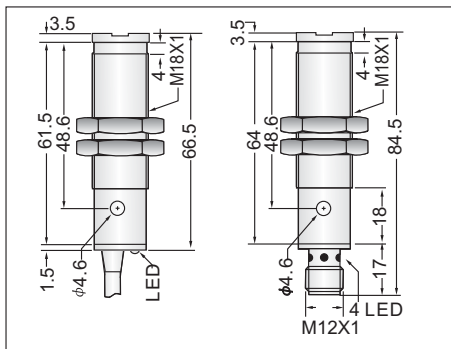
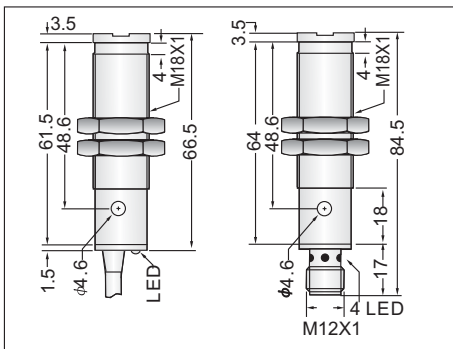
10-30VDC
≤10%
±10%Sn
10%
Infrared(880nm)
NPN or PNP (programmable)
N.O. & N.C. (programmable)
200mA
30mA or less
≤2.5V
Trimmer 1 tum
1mS
Yes
Yes
-25 ~ +55 °C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
D51 Mirror

10-30VDC
≤10%
±10%Sn
10%
Red(660nm)
NPN or PNP (programmable)
N.O. & N.C. (programmable)
200mA
30mA or less
≤2.5V
Trimmer 1 tum
1mS
Yes
Yes
-25 ~ +55 °C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
D51 Mirror

F1CDM180150NSI4A2-A A24	F1CDM180150NSIEA4-A A25
F1CDM180150PSI4A2-A A26	F1CDM180150PSIEA4-A A27
F1CDP180150NSI4A2-A A24	F1CDP180150NSIEA4-A A25
F1CDP180150PSI4A2-A A26	F1CDP180150PSIEA4-A A27

F1CLM183000NSI4A2-A A24	F1CLM183000NSIEA4-A A25
F1CLM183000PSI4A2-A A26	F1CLM183000PSIEA4-A A27
F1CLP183000NSI4A2-A A24	F1CLP183000NSIEA4-A A25
F1CLP183000PSI4A2-A A26	F1CLP183000PSIEA4-A A27

F1CLM181000NSI4A2/F-A A24	F1CLM181000NSIEA4/F-A A25
F1CLM181000PSI4A2/F-A A26	F1CLM181000PSIEA4/F-A A27
F1CLP181000NSI4A2/F-A A24	F1CLP181000NSIEA4/F-A A25
F1CLP181000PSI4A2/F-A A26	F1CLP181000PSIEA4/F-A A27



2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
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





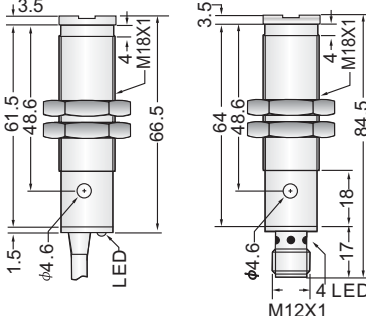
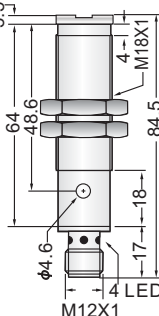
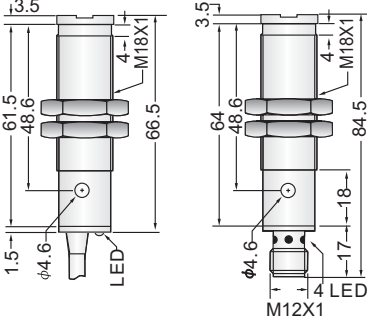
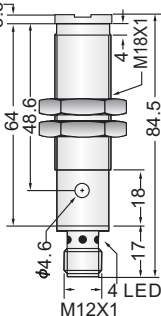
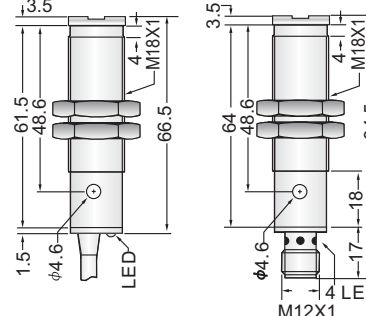
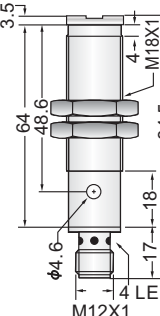
2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
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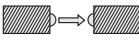





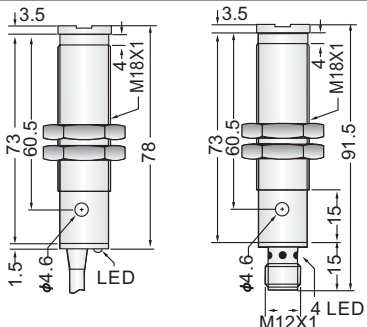
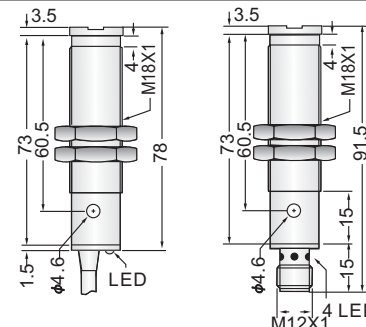
2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
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
M18B DC WITH MULTIFUNCTIONAL OUTPUT (NPN,PNP,NO,NC all in a single sensor)


Type	M18		M18		
Sensing mode	Through-beam mode		Diffuse mode		
Sensing picture					
Switching distance(sn)	15m		500mm		
Picture					
Nominal Voltage	10-30VDC		10-30VDC		
Residual Ripple	≤10%		≤10%		
Tolerance	±10%Sn		±10%Sn		
Hysteresis	10%		10%		
Emission	Infrared(880nm)		Infrared(880nm)		
Output	NPN or PNP (programmable)		NPN or PNP (programmable)		
Contact	N.O. or N.C. (programmable)		N.O. or N.C. (Programmable)		
Max. Output Current	200mA		200mA		
No Load Current	30mA or less		30mA or less		
Voltage Drop(Sensor On)	≤2.5V		≤2.5V		
Sensitivity Adjustment	Trimmer 1 turn		Trimmer 1 turn		
Response Time	1mS		1mS		
Short Circuit Protection	Yes		Yes		
Electric Protections	Yes		Yes		
Temperature Limits	-25 ~ +55°C		-25 ~ +55 °C		
Ambient humidity	35 to 85% RH		35 to 85% RH		
Light Immunity	>10.000Lux		>10.000Lux		
Protection Degree	IP67		IP67		
Housing Material	PBT Plastic or Nickel plated brass		PBT Plastic or Nickel plated brass		
Sensing object	φ8mm or more		20x20cm white paper		
Wiring diagram(see page 21-16)					
Brass Housing	Emitter :	F1CTM18015MDEI2A2-B A30	F1CTM18015MDEIEA4-B A31	F1CDM180500DSI4A2-B A29	F1CDM180500DSIEA4-B A31
	NPN or PNP, NO or NC OUTPUT	F1CTM18015MDSI4A2-B A29	F1CTM18015MDSIEA4-B A31		
Plastic Housing	Emitter :	F1CTP18015MDEI2A2-B A30	F1CTP18015MDEIEA4-B A31	F1CDP180500DSI4A2-B A29	F1CDP180500DSIEA4-B A31
	NPN or PNP, NO or NC OUTPUT	F1CTP18015MDSI4A2-B A29	F1CTP18015MDSIEA4-B A31		
Dimensions (unit: mm)					
Connect	2m PVC (φ4x0.25mm ²)	M12 Euro style	2m PVC (φ4x0.25mm ²)	M12 Euro style	
Weight	Approx.112 g	Approx.75 g	Approx.112 g	Approx.75 g	


M18B DC WITH MULTIFUNCTIONAL OUTPUT (NPN,PNP,NO,NC all in a single sensor)

M18 Diffuse mode		M18 Retro-reflective mode		M18 Retro-reflective mode (With Polarizing Filters)	
					
150mm		3m		1m	
					
CE		CE		CE	
10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
±10%Sn	±10%Sn	±10%Sn	±10%Sn	±10%Sn	±10%Sn
10%	10%	10%	10%	10%	10%
Infrared(880nm)	Infrared(880nm)	Infrared(880nm)	Infrared(880nm)	Red(660nm)	Red(660nm)
NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)	NPN or PNP (programmable)
N.O. or N.C. (programmable)	N.O. or N.C. (programmable)	N.O. or N.C. (programmable)	N.O. or N.C. (programmable)	N.O. or N.C. (programmable)	N.O. or N.C. (programmable)
200mA	200mA	200mA	200mA	200mA	200mA
30mA or less	30mA or less	30mA or less	30mA or less	30mA or less	30mA or less
≤2.5V	≤2.5V	≤2.5V	≤2.5V	≤2.5V	≤2.5V
Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum	Trimmer 1 tum
1mS	1mS	1mS	1mS	1mS	1mS
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C	-25 ~ +55 °C
35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH	35 to 85% RH
>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux	>10.000Lux
IP67	IP67	IP67	IP67	IP67	IP67
PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass
10x10cm white paper	D51 Mirror	D51 Mirror	D51 Mirror	D51 Mirror	D51 Mirror
F1CDM180150DSI4A2-B A29	F1CDM180150DSIEA4-B A31	F1CLM183000DSI4A2-B A29	F1CLM183000DSIEA4-B A31	F1CLM181000DSR4A2-B A29	F1CLM181000DSREA4-B A31
F1CDP180150DSI4A2-B A29	F1CDP180150DSIEA4-B A31	F1CLP183000DSI4A2-B A29	F1CLP183000DSIEA4-B A31	F1CLP181000DSR4A2-B A29	F1CLP181000DSREA4-B A31
					
2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g	2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g	2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g

Type	M18	M18	
	Through-beam mode	Diffuse mode	
			
Switching distance(sn)	15m	500mm	
Picture	 CE	 CE	
Nominal Voltage	24-240VAC	24-240VAC	
Residual Ripple	≤10%	≤10%	
Tolerance	±10%Sn	±10%Sn	
Hysteresis	10%	10%	
Emission	Infrared(880nm)	Infrared(880nm)	
Output	AC non-contact(MOSFET Output)	AC non-contact(MOSFET Output)	
Contact	Light on or Dark on	Light on or Dark on	
Max. Output Current	200mA	200mA	
No Load Current	5mA or less	5mA or less	
Sensitivity Adjustment	Trimmer 1 turn	Trimmer 1 turn	
Response Time	15mS	15mS	
Temperature Limits	-25 ~ +55°C	-25 ~ +55°C	
Ambient humidity	35 to 85% RH	35 to 85% RH	
Light Immunity	>10.000Lux	>10.000Lux	
Protection Degree	IP67	IP67	
Housing Material	PBT Plastic or Nickel plated brass	PBT Plastic or Nickel plated brass	
Sensing object	φ 8mm or more	20X20cm White Paper	
Wiring diagram(see page 21-16)			
Brass Housing	Emitter :	F2CTM18015MAEI2B2 A34 F2CTM18015MAEIEB4 A35	F2CTM18015MAEI2B2 A34 F2CTM18015MAEIEB4 A35
	Light on	F2CTM18015MALI3A2 A32 F2CTM18015MALIEA4 A33	F2CTM18015MALI3A2 A32 F2CTM18015MALIEA4 A33
	Dark on	F2CTM18015MADI3A2 A32 F2CTM18015MADIEA4 A33	F2CTM18015MADI3A2 A32 F2CTM18015MADIEA4 A33
Plastic Housing	Emitter :	F2CTP18015MAEI2B2 A34 F2CTP18015MAEIEB4 A35	F2CTP18015MAEI2B2 A34 F2CTP18015MAEIEB4 A35
	Light on	F2CTP18015MALI3A2 A32 F2CTP18015MALIEA4 A33	F2CTP18015MALI3A2 A32 F2CTP18015MALIEA4 A33
	Dark on	F2CTP18015MADI3A2 A32 F2CTP18015MADIEA4 A33	F2CTP18015MADI3A2 A32 F2CTP18015MADIEA4 A33
Dimensions (unit: mm)			
Connect	2m PVC (φ4x0.25mm ²)	M12 Euro style	
Weight	Approx.112 g	Approx.75 g	

M18
Diffuse mode

150mm

M18
Retro-reflective mode

3m

M18
Retro-reflective mode (With Polarizing Filters)

1m



24-240VAC
≤10%
±10%Sn
10%
Infrared(880nm)
AC non-contact(MOSFET Output)
Light on or Dark on
200mA
5mA or less
Trimmer 1 tum
15mS
-25 ~ +55°C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
10X10cm White Paper

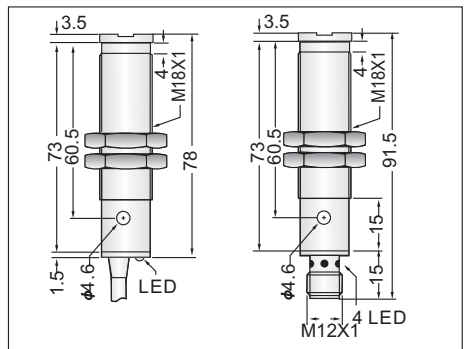
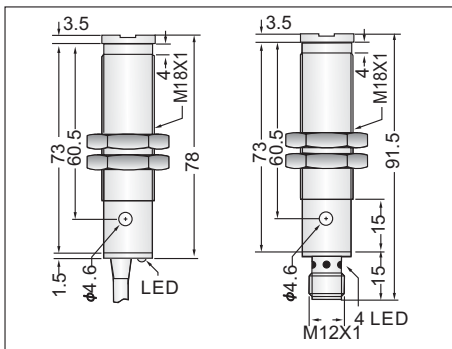
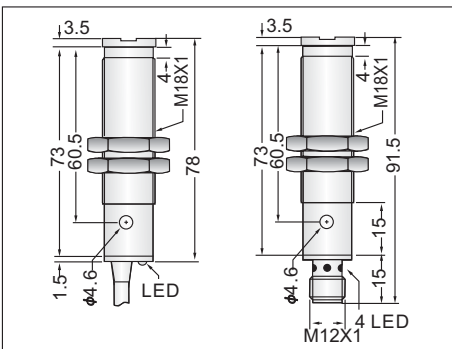
24-240VAC
≤10%
±10%Sn
10%
Infrared(880nm)
AC non-contact(MOSFET Output)
Light on or Dark on
200mA
5mA or less
Trimmer 1 tum
15mS
-25 ~ +55°C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
D51 Mirror

24-240VAC
≤10%
±10%Sn
10%
Infrared(880nm)
AC non-contact(MOSFET Output)
Light on or Dark on
200mA
5mA or less
Trimmer 1 tum
15mS
-25 ~ +55°C
35 to 85% RH
>10.000Lux
IP67
PBT Plastic or Nickel plated brass
D51 Mirror

F2CDM180150ALI3A2 A32	F2CDM180150ALIEA4 A33
F2CDM180150ADI3A2 A32	F2CDM180150ADIEA4 A33
F2CDP180150ALI3A2 A32	F2CDP180150ALIEA4 A33
F2CDP180150ADI3A2 A32	F2CDP180150ADIEA4 A33

F2CLM183000ALI3A2 A32	F2CLM183000ALIEA4 A33
F2CLM183000ADI3A2 A32	F2CLM183000ADIEA4 A33
F2CLP183000ALI3A2 A32	F2CLP183000ALIEA4 A33
F2CLP183000ADI3A2 A32	F2CLP183000ADIEA4 A33

F2CLM181000ALR3A2/F A32	F2CLM181000ALREA4/F A33
F2CLM181000ADR3A2/F A32	F2CLM181000ADREA4/F A33
F2CLP181000ALR3A2/F A32	F2CLP181000ALREA4/F A33
F2CLP181000ADR3A2/F A32	F2CLP181000ADREA4/F A33



2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
--------------------------------------------------	-------------------------------

2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
--------------------------------------------------	-------------------------------

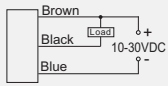
2m PVC (φ4x0.25mm ²) Approx.112 g	M12 Euro style Approx.75 g
--------------------------------------------------	-------------------------------

FR SERIES PHOTOELECTRIC SENSORS

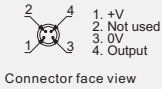
FR Series wiring diagrams

• M8 Receiver: NPN output (Through-beam)

A1 Cable output

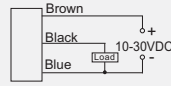


A2 Pico-style

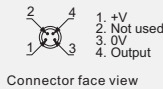


• M8 Receiver: PNP output(Through-beam)

A3 Cable output



A4 Pico-style

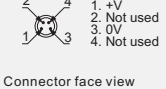


• M8 Emitter: Wiring diagram(Through-beam)

A5 Cable output

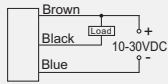


A6 Pico-style(M8)

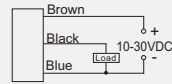


• M12 Receiver Cable Output

A7 NPN output

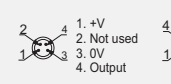


A8 PNP output

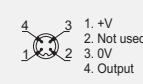


• M12 Receiver Connector Output

A9 Pico(M8)

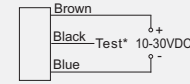


A10 Euro(M12)



• M12 Emitter Cable Output

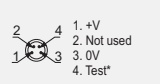
A11 Cable output



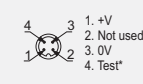
* Test(black wire)=0V, Emitter off

• M12 Emitter Connector Output

A12 Pico(M8)

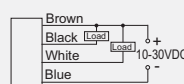


A13 Euro(M12)

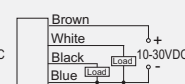


• M12 NPN Cable Output

A14 NPN output

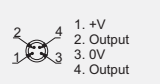


A15 PNP output

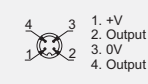


• M12 Connector Output

A16 Pico(M8)

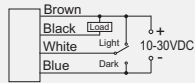


A17 Euro(M12)

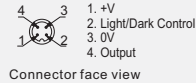


• M18 NPN output

A18 Cable output

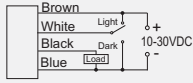


A19 Euro-style

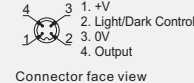


• M18 PNP output

A20 Cable output



A21 Euro-style



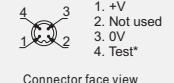
• M18 Emitter: (Through-beam)

A22 Cable output



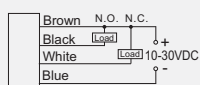
* Test(black wire)=0V, Emitter off

A23 Euro-style

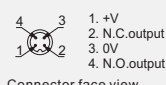


• M18A DC NPN N.O. &N.C. Output

A24 Cable output

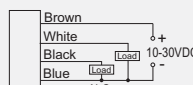


A25 Euro-style

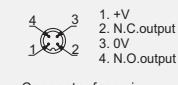


• M18A PNP output

A26 Cable output

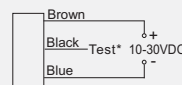


A27 Euro-style

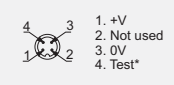


• M18A Emitter(Through-beam)

A28 Cable output

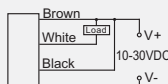


A29 Euro-style

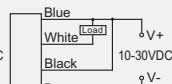


A29 M18B DC Cable

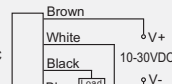
NPN-N.O.



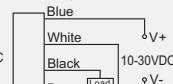
NPN-N.C.



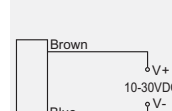
PNP-N.O.



PNP-N.C.

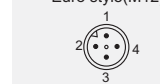


A30 M18B Emitter(DC)



A31 M18B Connection with connector (DC)

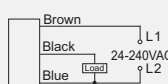
Euro style(M12)



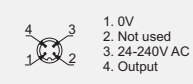
Output	Contact numbers			
	1	2	3	4
NPN N.O.	+	N.O.	-	+
NPN N.C.	-	N.C.	+	+
PNP N.O.	+	-	-	N.O.
PNP N.C.	-	-	+	N.C.
Emitter	+	-	-	+

• M18 AC Wiring diagram

A32 Cable output

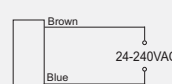


A33 Euro-style

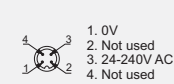


• M18AC Emitter Wiring diagram

A34 Cable output



A35 Euro-style

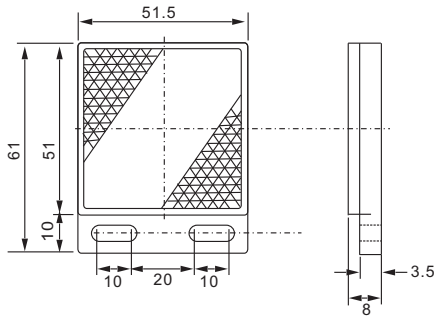


FR SERIES PHOTOELECTRIC SENSORS

FR Series Accessories

Accessories (unit:mm)

• Reflectors D51



• Reflectors D83

