

APS4 Inductive Proximity Sensors



APS4-12S-E-D
APS4-12S-E2-D

APS4-12M-E-D
APS4-12M-E2-D

Compact 12 x27 mm plastic – DC

- 4 models available
- Compact polycarbonate housing; comes with mounting plate
- High-frequency oscillation type
- DC 3-wire, NPN or PNP / N.O.
- Axial cable
- LED indicator
- IP67 rated

Compact Rectangular DC Prox Selection Chart							
Part Number	Price	Sensing Range	Housing	Output State	Logic	Connection	Dimensions
APS4-12M-E-D	<--->	4.0mm (0.157in)	Unshielded	N.O.	NPN	2m (6.5') axial cable	Figure 1
APS4-12M-E2-D	<--->				PNP		Figure 1
APS4-12S-E-D	<--->				NPN		Figure 2
APS4-12S-E2-D	<--->				PNP		Figure 2

Specifications	
Type	Unshielded
(Sn) Nominal Sensing Distance	4mm (0.157in)
Material Correction Factor	*See Material Influence table #1
Operating Voltage	10-30VDC
Load Current	≤50mA
Current Consumption	≤10mA
Voltage Drop	≤1.0VDC
Output Type	NPN or PNP
Leakage Current	≤0.1mA
Switching Frequency	200Hz
(tv) Time Delay Before Availability	5ms
Temperature Range	-10° to +50° C (14° to 122° F)
Protection Degree (DIN 40 050)	IEC IP67
LED Indicators	Displays operation status
Housing, Sensing Face Material	Polycarbonate
Weight	1.41oz. (40g)

*See Material Influence table #1 on page 17-53

Dimensions

All dimensions in mm

Figure 1

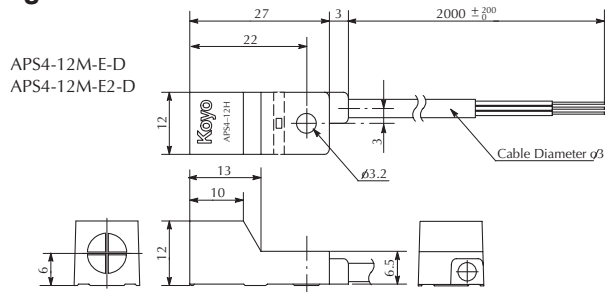
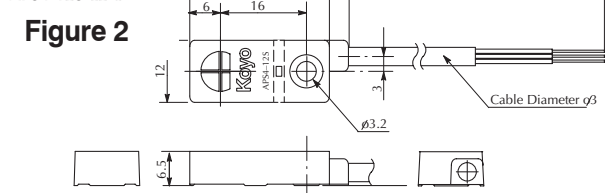
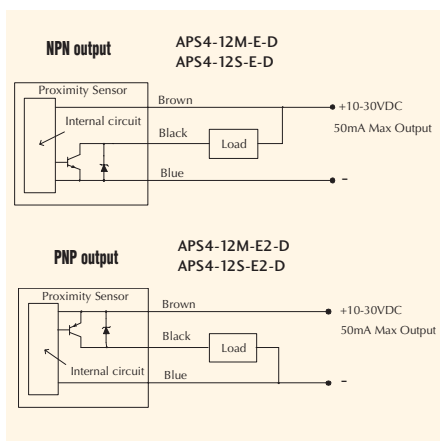


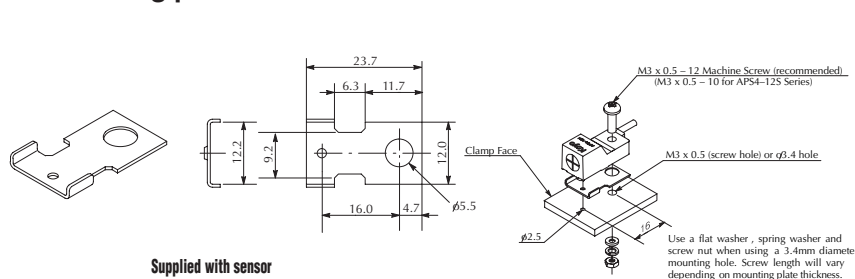
Figure 2



Wiring diagrams



Mounting plate



Proximity Sensors Accessories: Cables

Cables with quick-disconnect plugs



- Industry standard M8 and M12 screw-lock connectors
- Axial cable and right-angle connector models available
- Available in 2 meter, 5 meter, and 7 meter cable lengths
- PVC (polyvinyl chloride) jacket available for typical industrial applications
- PUR (polyurethane) jacket available for oily and direct sunlight applications
- IP67 rated

M8 Quick-Disconnect Cables

Part Number	Price	Length	Poles	Connector	Jacket	Dimensions
M8 Quick-Disconnects						
CD08-0A-020-A1	<--->	2m (6.5ft.)	3	Axial	PVC	Figure 1
CD08-0A-020-C1	<--->	2m (6.5ft.)	3	Right-angle	PVC	Figure 2
CD08-0A-050-A1	<--->	5m (16.4ft.)	3	Axial	PVC	Figure 3
CD08-0C-050-A1	<--->	5m (16.4ft.)	3	Axial	PUR	Figure 3
CD08-0A-050-C1	<--->	5m (16.4ft.)	3	Right-angle	PVC	Figure 4
CD08-0C-050-C1	<--->	5m (16.4ft.)	3	Right-angle	PUR	Figure 4
CD08-0A-070-A1	<--->	7m (23ft.)	3	Axial	PVC	Figure 1
CD08-0A-070-C1	<--->	7m (23ft.)	3	Right-angle	PVC	Figure 2

M12 Quick-Disconnect Cables

Part Number	Price	Length	Poles	Connector	Jacket	Dimensions
M12 Quick-Disconnects						
CD12L-0B-020-A0	<--->	2m (6.5ft.)	4	Axial	PVC	Figure 5
CD12L-0B-020-C0	<--->	2m (6.5ft.)	4	Right-angle	PVC	Figure 6
CD12M-0B-050-A1*	<--->	5m (16.4ft.)	3	Axial	PVC	Figure 7
CD12M-0D-050-A1*	<--->	5m (16.4ft.)	3	Axial	PUR	Figure 7
CD12M-0B-050-C1*	<--->	5m (16.4ft.)	3	Right-angle	PVC	Figure 8
CD12M-0D-050-C1*	<--->	5m (16.4ft.)	3	Right-angle	PUR	Figure 8
CD12M-0B-070-A1	<--->	7m (23ft.)	4	Axial	PVC	Figure 5
CD12M-0B-070-C1	<--->	7m (23ft.)	4	Right-angle	PVC	Figure 5

* Note: Do not use the SU, TU, VM and VK series with the 5 meter cable.

Cable Specifications	M8		M12	
Length	2m (6.5ft.)/ 7m (23ft.)	5m (16.4ft.)	2m (6.5ft.)/ 7m (23ft.)	5m (16.4ft.)
Nominal Voltage	50VAC/75VDC	60VAC/75VDC	300VAC	60VAC/75VDC
Nominal Current	4A	1.5A	4A	1.5A
Protection Degree	IEC IP67		IEC IP67	
Contact Body Material	ABS	PUR	ABS	PUR
Housing Material	PUR		PUR	
Contacts Material	CuSn	CuZn	CuSn	CuZn
Conductors Section	0.34mm ²		0.34mm ²	
Ø Outer Cable	5mm		5mm	
Temperature Range	-25° to +70°C (-13° to 158°F)		-25° to +70°C (-13° to 158°F)	

Dimensions

Figure 1

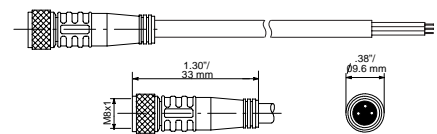


Figure 2

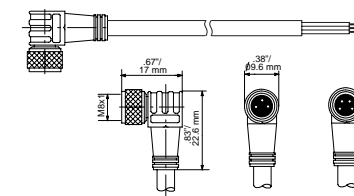


Figure 3

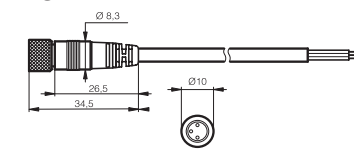


Figure 4

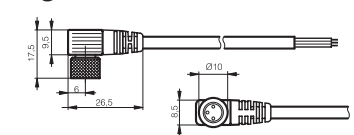


Figure 5

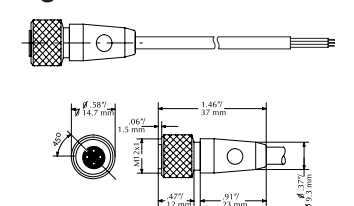


Figure 6

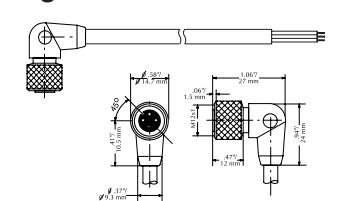


Figure 7

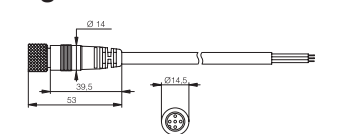
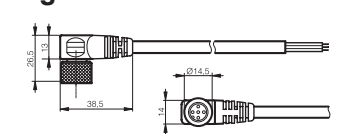


Figure 8



Proximity Sensors Accessories: Extension Cables



Extension cables with quick-disconnect plugs on each end

Available extension cables include:

- Industry standard M8 and M12 screw-lock connectors
- Axial and right-angle connector models
- Available in 1 meter and 3 meter cable lengths
- PVC (polyvinyl chloride) jacket for typical industrial applications
- IP67 rated

M8 Extension Cables with Quick-Disconnect on each end						
Part Number	Price	Length	Poles	Connectors	Jacket	Dimensions
M8 Quick-Disconnect Extension Cables						
<i>CDP08-0A-010-AA</i>	<--->	1m (3.28ft.)	3	2 Axial	PVC	Figure 1
<i>CDP08-0A-010-BB</i>	<--->	1m (3.28ft.)	3	2 Right-angle	PVC	Figure 2
<i>CDP08-0A-030-AA</i>	<--->	3m (9.84ft.)	3	2 Axial	PVC	Figure 1
<i>CDP08-0A-030-BB</i>	<--->	3m (9.84ft.)	3	2 Right-angle	PVC	Figure 2

M12 Extension Cables with Quick-Disconnect on each end						
Part Number	Price	Length	Poles	Connectors	Jacket	Dimensions
M12 Quick-disconnect Extension Cables						
<i>CDP12-0B-010-AA</i>	<--->	1m (3.28ft.)	4	2 Axial	PVC	Figure 3
<i>CDP12-0B-010-BB</i>	<--->	1m (3.28ft.)	4	2 Right-angle	PVC	Figure 4
<i>CDP12-0B-030-AA</i>	<--->	3m (9.84ft.)	4	2 Axial	PVC	Figure 3
<i>CDP12-0B-030-BB</i>	<--->	3m (9.84ft.)	4	2 Right-angle	PVC	Figure 4

Cable Specifications	M8 / M12
Length	1m (3.28ft.)/ 3m (9.84ft.)
Nominal Voltage	50VAC/75VDC
Nominal Current	4A
Protection Degree	IEC IP67
Contact Body Material	ABS
Housing Material	PUR
Contacts Material	CuSn
Conductors Section	0.34mm ²
Ø Outer Cable	5mm
Temperature Range	-25° to +70°C (-13° to 158°F)

Dimensions

Figure 1

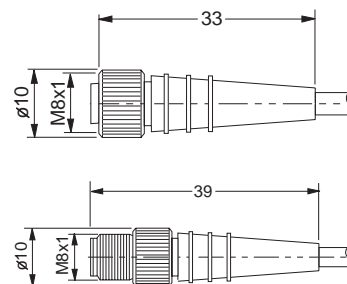


Figure 2

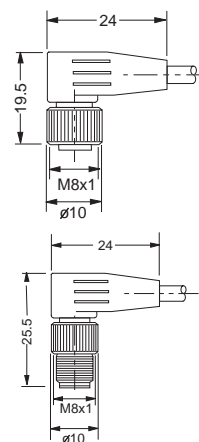


Figure 3

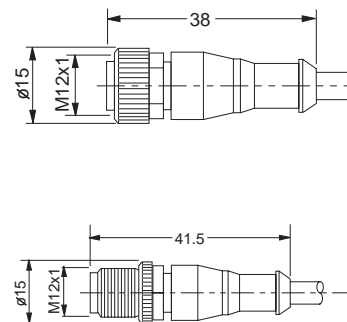
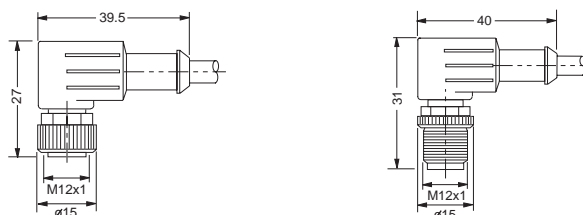


Figure 4




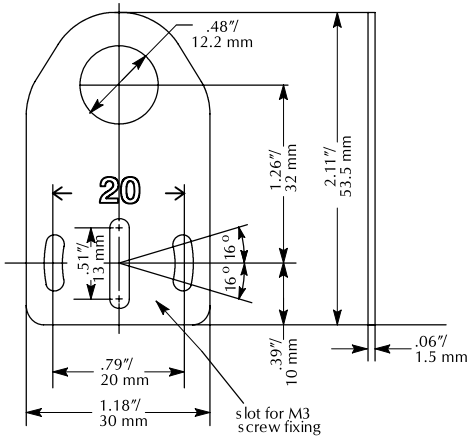
Accessories: Adapter, Mounting Brackets

ST12A metal axial bracket

For mounting M12 (12 mm) sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for right-beam angle adapter sensors. Hexagonal nuts not included.




 (1 per pack)

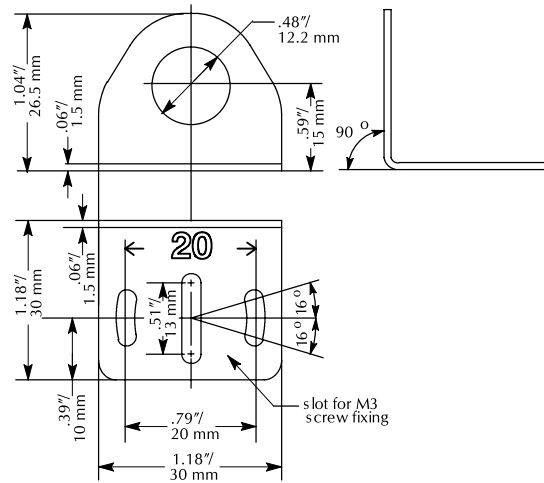


ST12C metal right-angle bracket

Metal angular mounting bracket for use with M12 (12 mm) sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.




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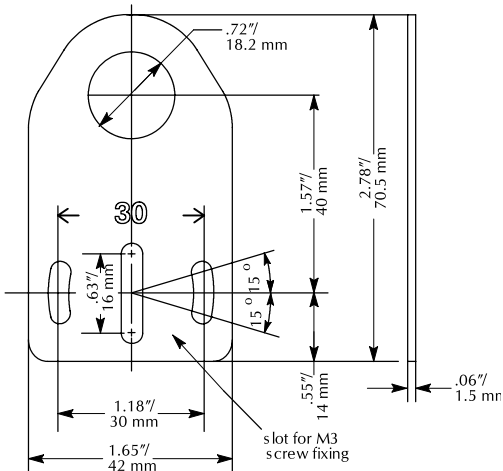


ST18A axial bracket

Metal mounting bracket for M18 (18 mm) sensors. Has two mounting holes (use 4 mm screws) and allows the rotation of an optical axis for right-beam-angle-adapter sensors. Hexagonal nuts not included.




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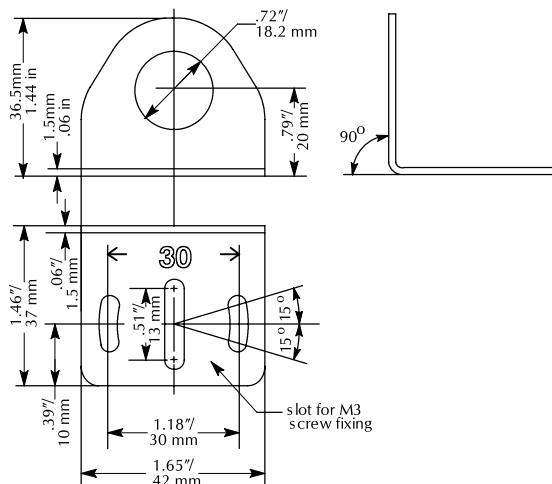


ST18C metal right-angle bracket

Metal angular mounting bracket for M18 (18 mm) sensors. Has two mounting holes (use 4 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.



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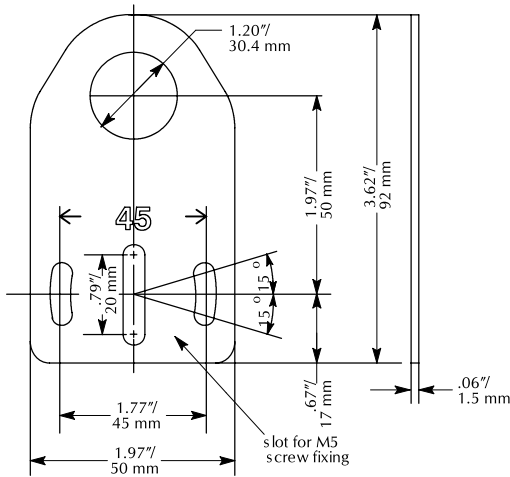
Accessories: Mounting Brackets

ST30A metal axial bracket

For mounting M30 (30 mm) sensors. Has two mounting holes (use 5 mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.



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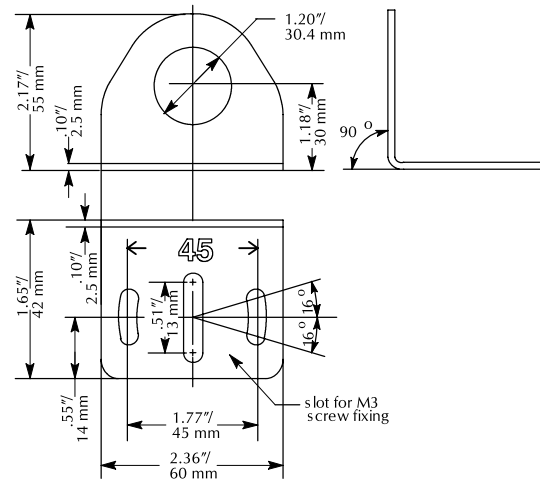


ST30C right-angle bracket

Metal angular mounting bracket for M30 (30 mm) sensors. Has two mounting holes (use 5 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.



←---→ (1 per pack)



PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Pushbuttons/Lights

Process

Relays/Timers

Comm.

TB's & Wiring

Power

Enclosures

Appendix

Part Index