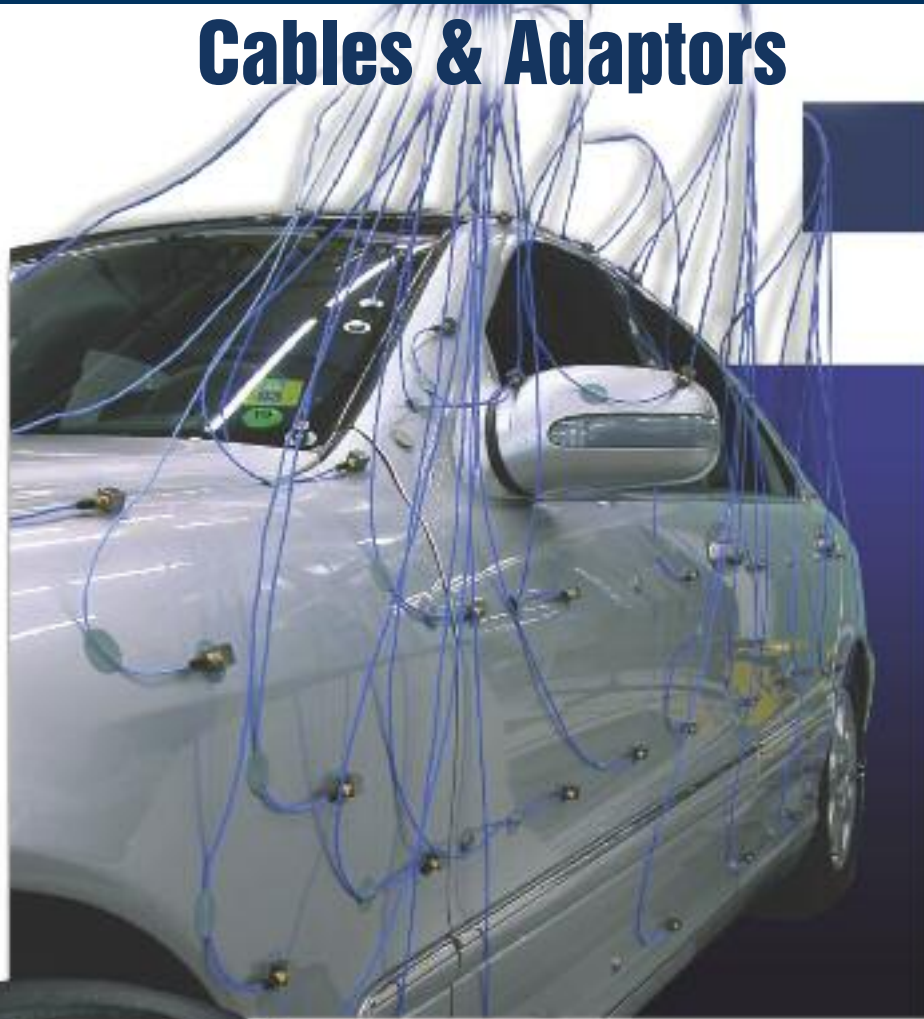




Cables & Adaptors



Highlights:

- Stock Cable Assemblies
- Custom Cable Assemblies
- Multi-conductor Cables
- Patch Panels
- Connector Adaptors



Common Coaxial Cable Assemblies

Common Coaxial Cable Assemblies								Construct cable assembly model by combining base model with desired length, e.g., 002C10.	
Base Model	1 ft (0.3 m)	3 ft (0.9 m)	5 ft (1.5 m)	10 ft (3.0 m)	20 ft (6.1 m)	30 ft (9.1 m)	50 ft (15.2 m)		
030A				10				Teflon®, Low Noise, Miniature	3-56 Plug to 10-32 Plug
030C				10				Teflon®, Low Noise, Miniature	3-56 Plug to BNC Plug
018G		03	05	10	20	30		PVC, Miniature	5-44 Plug to 10-32 Plug
003G		03	05	10	20	30		Teflon®, Low Noise, CE	5-44 Plug to 10-32 Plug
002P		03	05	10	20	30		Teflon®	5-44 Plug to BNC Plug
003P		03	05	10	20	30		Teflon®, Low Noise, CE	5-44 Plug to BNC Plug
018C		03	05	10	20	30		PVC, Miniature	5-44 Plug to BNC Plug
003R			05	10	20			Teflon®, Low Noise, CE	M3 Plug to 10-32 Plug
002A		03	05	10	20	30	50	Teflon®	10-32 Plug to 10-32 Plug
003A	01	03	05	10	20	30		Teflon®, Low Noise, CE	10-32 Plug to 10-32 Plug
023A				10				Hardline	10-32 Plug to 10-32 Jack
002C		03	05	10	20	30	50	Teflon®	10-32 Plug to BNC Plug
003C		03	05	10	20	30		Teflon®, Low Noise, CE	10-32 Plug to BNC Plug
002B	01	03						Teflon®	10-32 Plug to BNC Jack
003B	01	03						Teflon®, Low Noise, CE	10-32 Plug to BNC Jack
003U				10				Teflon®, Low Noise, CE	SMB Female Plug to SMB Female Plug
003V				10				Teflon®, Low Noise, CE	SMB Female Plug to BNC Plug
002T		03		10	20			Teflon®	BNC Plug to BNC Plug
003D		03		10	20			Teflon®, Low Noise, CE	BNC Plug to BNC Plug
012A		03		10	20		50	PVC, RG58/U	BNC Plug to BNC Plug
012E				10	20		50	PVC, RG58/U	2-Socket Env. Sealed to BNC Plug
012R				10	20		50	PVC, RG58/U	2-Socket MIL to BNC Plug



Common Coaxial Cable Specifications					
Model	002	003	012	018	030
Cable Style	General Purpose	Low Noise	General Purpose	General Purpose	Low Noise
Temperature Range	-130 to +400 °F -90 to +204 °C	-320 to +500 °F -196 to +260 °C	-40 to +176 °F -40 to +80 °C	-22 to +221 °F -30 to +105 °C	-130 to +500 °F -90 to +260 °C
Impedance	50 ohm	50 ohm	52 ohm	32 ohm	50 ohm
Capacitance	29 pF/ft 95 pF/m	30 pF/ft 90 pF/m	29 pF/ft 95 pF/m	55 pF/ft 180 pF/m	30 pF/ft 98 pF/m
Cable Jacket Material	FEP Teflon®	TFE Teflon®	PVC	PVC	PTFE Teflon®
Cable Jacket Diameter	0.075 in 1.9 mm	0.079 in 2.01 mm	0.193 in 4.9 mm	0.054 in 1.37 mm	0.042 in 1.09 mm

Other Coaxial Cable Specifications					
Model	005	006	023	038	098
Cable Style	Ruggedized	Low Noise Ruggedized	Hardline	Low Noise	Low Noise
Temperature Range	-67 to +275 °F -55 to +135 °C	-67 to +275 °F -55 to +135 °C	-300 to +1200 °F -184 to +650 °C	-58 to +250 °F -50 to +121 °C	-130 to +500 °F -90 to +260 °C
Impedance	50 ohm	50 ohm	—	50 ohm	50 ohm
Capacitance	29 pF/ft 95 pF/m	30 pF/ft 90 pF/m	100 pF/ft 328 pF/m	30 pF/ft 100 pF/m	35 pF/ft 115 pF/m
Cable Jacket Material	Polyolefin over Steel Braid	Polyolefin over Steel Braid	Stainless Steel	Polyurethane	TFE Teflon®
Cable Jacket Diameter	0.200 in 5.08 mm	0.200 in 5.08 mm	0.059 in 1.5 mm	0.119 in 3.02 mm	0.079 in 2.01 mm



4-Conductor Cable Assemblies

4-Conductor Cable Assemblies									
Base Model	5 ft (1.5 m)	10 ft (3.0 m)	15 ft (4.6 m)	20 ft (6.1 m)	25 ft (7.6 m)	30 ft (9.1 m)	50 ft (15.2 m)	Construct cable assembly model by combining base model with desired length, e.g., 034G20.	
034H	05	10		20		30	50	Teflon®, Lightweight	Mini 4-Socket Plug to (3) 10-32 Plugs
034K	05	10		20		30	50	Teflon®, Lightweight	Mini 4-Socket Plug to (3) BNC Plugs
019B	05	10	15	20		30		Silicone, Flexible, Lightweight	Mini 4-Socket Plug to (3) BNC Plugs
010P	05	10		20		30	50	Teflon®, General Purpose	4-Socket Plug to Pigtails
034A	05	10		20		30	50	Teflon®, Lightweight	4-Socket Plug to Pigtails
010D	05	10	15	20	25	30		Teflon®, General Purpose	4-Socket Plug to 4-Socket Plug
034D	05	10		20		30	50	Teflon®, Lightweight	4-Socket Plug to 4-Socket Plug
010F	05	10	15	20	25	30	50	Teflon®, General Purpose	4-Socket Plug to (3) 10-32 Plugs
034F	05	10		20		30	50	Teflon®, Lightweight	4-Socket Plug to (3) 10-32 Plugs
010G	05	10	15	20	25	30	50	Teflon®, General Purpose	4-Socket Plug to (3) BNC Plugs
034G	05	10	15	20	25	30	50	Teflon®, Lightweight	4-Socket Plug to (3) BNC Plugs
036G	05	10	15	20	25	30		Silicone, Flexible	4-Socket Plug to (3) BNC Plugs
078F		10	15		25			Polyurethane, Flexible	4-Socket Plug to (3) 10-32 Plugs
034G	05	10	15	20	25	30	50	Polyurethane, Flexible	4-Socket Plug to (3) BNC Plugs



4-Conductor Cable Specifications					
Model	010	034	019	036	078
Cable Style	General Purpose	Low Noise	Flexible Lightweight	Flexible	Flexible
Temperature Range	-130 to +392 °F -90 to +200 °C	-130 to +392 °F -90 to +104 °C	-96 to +500 °F -60 to +260 °C	+392 °F +200 °C	-96 to +500 °F -60 to +260 °C
Capacitance	29 pF/ft 95 pF/m	25 pF/ft 82 pF/m	26 pF/ft 85.2 pF/m	17 pF/ft 55 pF/m	26 pF/ft 85.2 pF/m
Cable Jacket Material	FEP Teflon®	PTFE Teflon®	Silicone	Silicone	Silicone
Cable Jacket Diameter	0.075 in 1.9 mm	0.077 in 1.96 mm	0.07 in 1.78 mm	0.104 in 2.64 mm	0.119 in 3.02 mm



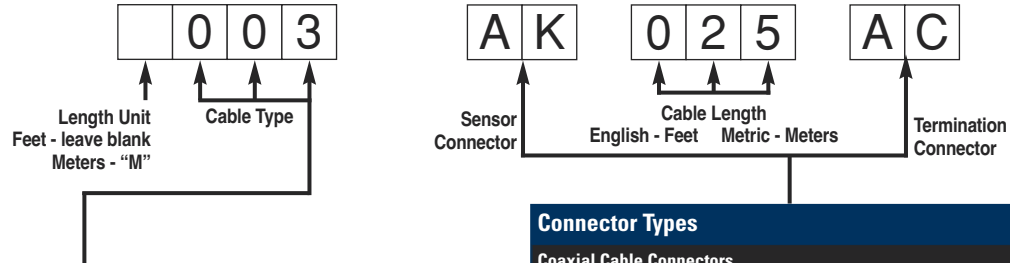
Custom Cable Assemblies

How to Configure Custom Cable Models:

1. Choose the cable length format desired, either English (ft) or Metric (m) unit lengths.
2. Choose the desired raw cable type.
3. Choose desired sensor connector type.
4. Determine the cable length required in English (ft) or Metric (m) unit lengths.
5. Choose desired termination connector type.

Example:

Model 003AK025AC defines a 25 ft, low-noise cable with right angle 10-32 plug sensor connector, BNC plug termination connector.



Raw Cable Type						
Coaxial Cables			Diameter		Max. Temp.	
002	General Purpose, White Teflon® Jacket	☑☑	0.075 in	1.9 mm	400°F	204°C
003	Low Noise, Blue Teflon® Jacket	☑☑	0.079 in	2.0 mm	500°F	260°C
005	Ruggedized 002 Type, General Purpose	☑☑	0.2 in	5.08 mm	275°F	135°C
006	Ruggedized 003 Type, Low Noise	☑☑	0.2 in	5.08 mm	275°F	135°C
012	RG-58/U, Black Vinyl Jacket	☑☑	0.193 in	4.90 mm	176°F	80°C
018	Lightweight, Black PVC Jacket		0.051 in	1.3 mm	221°F	105°C
030	Low Noise, Mini, Blue Teflon® Jacket	☑☑	0.043 in	1.1 mm	500°F	260°C
038	Low Noise, Blue Polyurethane Jacket	☑☑	0.119 in	3.02 mm	250°F	121°C
098	Very Low Noise, Green TFE Teflon® Jacket	☑☑	0.079 in	2.06 mm	500°F	260°C
Twisted/Shielded Pair Cable						
024	General Purpose, Black Polyurethane Jacket	☑☑	0.250 in	6.40 mm	250°F	121°C
032	Lightweight, Teflon® Jacket		0.085 in	2.16 mm	392°F	200°C
045	High Temperature, Red PFA Teflon® Jacket	☑☑	0.250 in	6.40 mm	250°F	121°C
053	High Temperature, Red FEP Teflon® Jacket	☑☑	0.157 in	3.99 mm	392°F	200°C
Shielded 4-Conductor Cable						
010	General Purpose, Teflon® Jacket	☑☑	0.1 in	2.54 mm	392°F	200°C
034	Lightweight, Teflon® Jacket	☑☑	0.07 in	1.77 mm	392°F	200°C
019	Lightweight, Blue Silicon Jacket	☑☑	0.070 in	1.77 mm	500°F	260°C
036	General Purpose, Blue Silicon Jacket	☑☑	0.104 in	2.64 mm	392°F	200°C
078	General Purpose, Blue Polyurethane Jacket	☑☑	0.119 in	3.02 mm	185°F	85°C
Hardline Cable						
013	Hardline, 2-conductor, Inconel Jacket		0.125 in	3.20 mm	1200 °F	650 °C
023	Hardline, Coaxial, 304L Stainless Steel Jacket		0.059 in	1.5 mm	1200 °F	650 °C
Miscellaneous Cable						
031	Red/White Twisted Pair, Teflon® Jacket		0.03 in*	0.8 mm*	392°F	200°C
037	10-cond. Shielded, Black Poly Jacket		0.024 in	0.610 mm	250°F	121°C

* diameter of each conductor
The combination of cables and connectors listed are only recommended configurations; other configurations may be available. Consult PCB® before ordering.
☑☑ designates that cable maintains ☑☑ conformance

Connector Types

Coaxial Cable Connectors

EB	10-32 Plug
EJ	10-32 Plug (Spring Loaded)
AH	10-32 Plug (Hex)
AK	10-32 Plug (Right-Angle)
AW	10-32 Plug (Solder Adaptor)
FZ	10-32 Plug (for 023 Hardline Cabling)
AL	10-32 Jack
GA	10-32 Jack (for 023 Hardline Cabling)
AG	5-44 Plug
AF	5-44 Plug (Right-Angle)
EK	3-56 Plug
EP	M3 Plug
LM	M4 Plug
AC	BNC Plug
AB	BNC Jack
FW	SMB Plug
FX	SMB Jack

Multi-Lead Connectors (For Triaxial Sensors)

AY	4-Socket Plug
CA	4-Pin Jack
EH	4-Socket Miniature Plug
HJ	4-Pin Miniature Jack
EN	9-Socket Plug
JY	Splice Assembly to (3) EB Connectors
LA	Splice Assembly to (3) EJ Connectors
JZ	Splice Assembly to (3) AL Connectors
JW	Splice Assembly to (3) AC Connectors
JX	Splice Assembly to (3) AB Connectors
JS	Splice Assembly to (3) AY Connectors

Miscellaneous Connectors

AE	2-Socket Plug MS3106 5/8-24 thd (with Environmental Boot)
AP	2-Socket Plug MS3106 5/8-24 thd (with Strain Relief)
BP	2-Socket Plug MS3106 5/8-24 thd (High Temperature)
ET	2-Socket Plug MIL 7/16-27 thd (High Temperature)
GN	2-Socket Plug MIL 7/16-27 thd (for 013 Hardline Cabling)
GP	2-Pin Jack MIL 7/16-27 thd (for 013 Hardline Cabling)
LN	8-Pin Mini DIN (for 4-Wire Bridge)
BZ	Blunt Cut
GF	Pigtail (Leads Stripped and Tinned for 1500 Series)
DZ	Pigtail (Leads Stripped and Tinned for 3711/3713 Series)
JJ	Pigtail (Leads Stripped and Tinned for 3741 Series)
AD	Pigtail (Leads Stripped and Tinned for all Others)




AB BNC Jack
Max Temp 212 °F (100 °C)



AC BNC Plug
Max Temp 212 °F (100 °C)



AD Pigtail (leads stripped and tinned)
Max Temp 490 °F (254 °C)*



AE 2-Socket MS3106 Plug (with environmental boot)
Max Temp 325 °F (163 °C)




AF 5-44 Coaxial Plug (right angle)
Max Temp 325 °F (163 °C)



AG 5-44 Coaxial Plug (straight)
Max Temp 490 °F (254 °C)



AH 10-32 Coaxial Plug (straight, with wire locking hex)
Max Temp 490 °F (254 °C)




AK 10-32 Coaxial Plug (right angle)
Max Temp 490 °F (254 °C)




AL 10-32 Coaxial Jack (straight)
Max Temp 325 °F (163 °C)



AP 2-Socket MS3106 Plug (with strain relief)
Max Temp 325 °F (163 °C)



AW 10-32 Coaxial Plug / Solder Adaptor (user repairable)
Max Temp 490 °F (254 °C)*



AY 4-Socket Plug, 1/4-28 Thread (for triaxial sensors)
Max Temp 325 °F (163 °C)




CA 4-Pin Jack, 1/4-28 Thread (for triaxial sensors)
Max Temp 350 °F (177 °C)




EB 10-32 Coaxial Plug (straight)
Max Temp 490 °F (254 °C)




EH 4-Socket Mini Plug, 8-36 Thread (for triaxial sensors)
Max Temp 490 °F (254 °C)



EJ 10-32 Coaxial Plug (straight, o-ring seal, spring loaded)
Max Temp 490 °F (254 °C)




EK 3-56 Coaxial Plug
Max Temp 350 °F (177 °C)



EN 9-Socket Plug (for triaxial capacitive accelerometers)
Max Temp 325 °F (163 °C)




EP M3 Coaxial Plug
Max Temp 490 °F (254 °C)




ET 2-Socket Plug, 7/16-27 Thread
Max Temp 325 °F (163 °C)



FZ 10-32 Coaxial Plug (for hardline cable)
Max Temp 900 °F (482 °C)



GA 10-32 Coaxial Jack (for hardline cable)
Max Temp 500 °F (260 °C)



GN 2-Socket Plug, 7/16-27 Thread (high temperature)
Max Temp 900 °F (482 °C)



GP 2-Pin Jack, 7/16-27 Thread (high temperature)
Max Temp 900 °F (482 °C)



*Max Temp may be less depending upon cable application.



Custom Cable Assemblies

PCB® offers many standard cable assemblies, however, in the event that a standard cable assembly will not fulfill the requirements of the application, the ability to configure a custom cable assembly is offered. Start by ensuring compatibility of the connector type with the cable type desired from the chart below, and then configure the custom cable model number from the steps on the next page.

Cable - Connector Compatibility Matrix

The following table provides compatibility information for cables and cable connectors. A "✓" denotes compatibility of the connector type shown in the rows going down the table with the cable type of the intersecting column going across the table.

Coax Custom Cable Assemblies

Cable	002	003	005	006	012	013	018	023	024	030	031	032	038	045	053	098
Connector																
AB	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
AC	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
AD	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
AE		✓			✓				✓						✓	
AF	✓	✓	✓	✓			✓			✓						✓
AG	✓	✓	✓	✓			✓			✓	✓	✓	✓			✓
AH	✓	✓	✓	✓			✓			✓		✓				✓
AK	✓	✓	✓	✓			✓			✓		✓	✓			✓
AL	✓	✓	✓	✓			✓			✓	✓	✓				✓
AP	✓	✓	✓	✓	✓				✓			✓	✓	✓	✓	✓
AW											✓					
BP	✓	✓		✓									✓	✓	✓	
BZ	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
EB	✓	✓	✓	✓			✓			✓	✓	✓	✓			✓
EJ	✓	✓	✓	✓			✓			✓		✓	✓			✓
EK										✓						✓
EP	✓	✓	✓	✓			✓			✓						✓
ET														✓	✓	
FW	✓	✓	✓	✓			✓			✓						✓
FX	✓	✓														✓
FZ									✓							
GA									✓							
GN						✓										
GP						✓										

Multi-conductor Custom Cable Assemblies

Cable	010	019	034	036	037	078
Connector						
AD	✓	✓	✓	✓	✓	✓
AY	✓	✓	✓	✓	✓	✓
BZ	✓	✓	✓	✓	✓	✓
CA	✓	✓	✓	✓		✓
EH		✓	✓			
EN					✓	
GF	✓		✓		✓	
HJ			✓			
JJ	✓					
JS					✓	
JW	✓	✓	✓	✓		✓
JX	✓	✓	✓	✓		✓
JY	✓	✓	✓	✓		✓
JZ	✓	✓	✓	✓		✓
LA	✓	✓	✓	✓		✓



Multi-conductor Cables

Multi-conductor cables minimize tangles and reduce overall cable costs. They also offer the user numerous cable/termination variations to suit a particular transmission requirement, as well as the ability to consolidate several cables into one.



Model 009F "xx"
Flat ribbon cable
DB50 female to DB50 male
Specify "xx" length in feet



Model 009H "xx"
Shielded ribbon cable
DB50 female to DB50 male
Specify "xx" length in feet



Model 009L05
Multi-conductor cable
VXI to 4 BNC plugs
5 ft (1.5 m) length



Model 009S05
Multi-conductor cable
VXI to VXI
5 ft (1.5 m) length



Model 009B "xx"
Ruggedized
Shielded multi-conductor cable
DB50 female to DB50 male
Specify "xx" length in feet



Model 009A "xx"
Ruggedized
Multi-conductor cable
DB50 female to 16 BNC Plugs
Specify "xx" length in feet

Patch Panels

Input patch panels serve as a central collection point for individual sensor cables installed in multi-channel measurement arrays. The sensor signal paths are then consolidated and transmission to readout or data acquisition equipment is accomplished by a single, multi-conductor cable.

Output patch panels connect via multi-conductor cables to the output connectors on high density rack or modular signal conditioners. The sensor signal paths are then expanded to individual BNC's for each channel for subsequent connection to data acquisition equipment.



Model 070C21
16-channel input patch panel
16 IDC pin inputs
DB50 male output



Model 070C29
16-channel input patch panel
16 BNC jack and
16 IDC pin inputs
DB50 male output



Model 070A33
32-channel input patch panel
32 BNC jack and 32 IDC pin inputs
2 DB50 male outputs
Rack mount



Model 070A34
32-channel output patch panel
2 DB37 male inputs
4 DB37 female servo inputs
4 DB50 male HP outputs
32 BNC jack outputs
Rack mount



Connector Adaptors



070A01

Scope Input T Connector

BNC plug to two 10-32 coaxial jacks. Used for splitting low-impedance signals.



070A05

10-32 Coaxial

Coupler 10-32 coaxial jack to 10-32 coaxial jack. Joins two cables terminating in 10-32 coaxial plugs.



070A11

BNC T Connector

BNC plug to two BNC jacks. Used as a cable splitter.



1/4 in max wall thickness
5/16 in mtg thd

070A14

10-32 Hermetic Feed-thru

10-32 coaxial jack to 10-32 coaxial jack. Tapped 5/16-32.



Model "EB" 10-32 Coaxial Connector

10-32 crimp-on style coaxial connector. Requires tool contained in 076C31 kit.

Model 076C31 10-32 Coaxial Crimp-on Connector Kit

Includes 1 pin insertion tool, 1 sleeve-crimping tool, and 20 Model "EB" connectors with cable strain reliefs. (Wire stripper and soldering iron not included).



Pin tool



Crimping tool



070A02

Scope Input Adaptor

10-32 coaxial jack to BNC plug. For adapting BNC connectors for use with 10-32 coaxial plugs.



070A08

Adaptor Cable

10-32 coaxial jack to BNC jack. Joins cables terminating in a BNC plug and a 10-32 coaxial plug.



070A12

BNC Coupler

BNC jack to BNC jack. Joins two cables terminating in BNC plugs.



070A20

10-32 Coaxial Right Angle Connector Adaptor

10-32 coaxial jack to 10-32 coaxial plug. For use in confined locations. For ICP® sensors only.



076A25



076A05

076A05 10-32 Coaxial Plug

Microdot connector, screw-on type.

076A25 Connector Tool

Used to install 076A05 screw-on type microdot connector.

Model 076A30 Microdot Screw-on Connector Kit

One Model 076A25 Tool and 20 Model 076A05 10-32 coaxial connectors for emergency repair of 002-type cables.



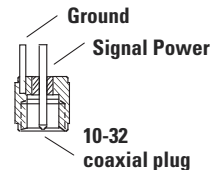
070A03

Connector Adaptor

10-32 coaxial plug to BNC jack. Converts 10-32 connectors for use with BNC plugs. Do not use on sensor connectors.



070B09



Solder Connector Adaptor

10-32 coaxial plug to solder terminals. Excellent for high-shock applications. User-repairable.

1/8 in max wall thickness



070A13

Feed-thru Adaptor

10-32 coaxial jack to BNC jack. Bulkhead connects BNC plug to 10-32 coaxial jack.



085A18

Plastic Protective Cap

Provides strain relief for solder connector adaptors, as well as protects 10-32 cable ends.



085A40

10-32 Coaxial Shorting Cap

Used to short charge output sensor connectors during storage and transportation.

Hochwertige Messtechnik und Beratung aus einer Hand

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