WILDCAT MICRO CONNECTORS

Compact, Reliable Interconnections for Demanding Applications

SPACE AND WEIGHT SAVINGS

- High-density contact spacing and lightweight materials

FLEXIBLE CONFIGURATION

- Bayonet or threaded coupling

RUGGED RELIABILITY

- Extreme temperature, vibration and corrosion resistance
- Aggressive fluid resistance and dust ingress prevention
- Fully sealed cable and mating interface with IP67 rating

DURABLE

- Over 500 mating cycles

EASY TO USE

- Scalloped/knurled coupling ring for easy gripping
- Scoop-proof interface
- Rear removable crimp and PCB contacts
- Cable braid and boot rear feature for fast, effective shield termination and no need for separate backshell

VERSATILE

- 7 keying options including “Universal”
- Suitable for both signal and low power applications
- MIL-STD-1553 protocol compatible

Offering a high-reliability interconnection for demanding applications including military and aerospace, Wildcat Micro connectors are extremely compact and available in two housing sizes with four contact layouts of 3 and 9 contacts.

Coupling choices include a robust bayonet mechanism for quick and positive coupling or an anti-vibration triple-start threaded option for high-vibration applications.

Various mounting options are available, and the rear accessory feature provides for cable braid and boot termination.

A variety of material and plating options means versatile choices to match the demands of you application.

Performance Characteristics

ELECTRICAL

- **Dielectric Withstand Voltage:** 1000 VAC
- **Current Rating:** 3 to 5 amps/contact

ENVIRONMENTAL

- **Temperature:** -55°C to +175°C
- **Durability:** 500 mating cycles
- **Vibration:**
  Sinusoidal: 10 to 2000 Hz, 30 g max.
  Random: 50 to 2000 Hz, 1 g^2/Hz
- **Fluid Resistance:** Withstands a wide range of military and aerospace fluids
- **Salt Spray Resistance:** 500 hours (cadmium finish)
- **Environmental Sealing:** IP67

MATERIALS

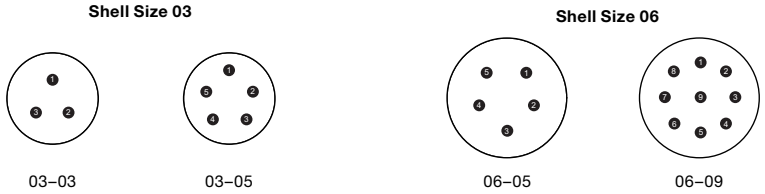
- **Shell and Coupling Ring:** Aerospace-grade aluminum alloy as standard
- **Plating:** Cadmium olive drab as standard; options include electroless nickel, zinc nickel, and zinc cobalt
- **Insulators:** High-performance thermoplastic
- **Seals:** Fluorinated silicone
- **Contacts:** Gold-plated machined copper alloy
- **Wire Size:** 28 to 22 AWG

Raytronics AG, Bösch 37, CH-6331 Hünenberg, Tel: +41 41 768 65 75, Fax: +41 41 768 65 80
E-Mail: info@raytronics.ch, Webseite: www.raytronics.ch, www.schrumpfschlauch.ch

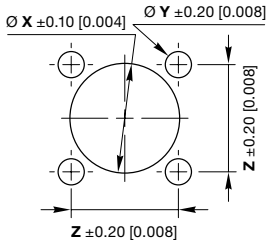
Wildcat Micro Connectors

Contact Arrangements

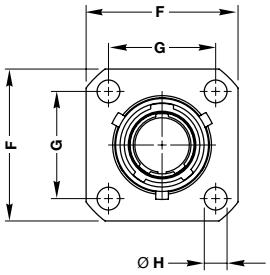
(Viewed from the mating face
of a connector with pin contacts)

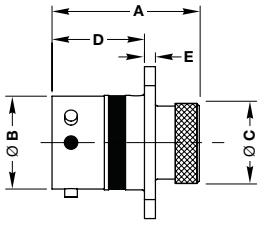


Square Flange Receptacle: Shell Type 0

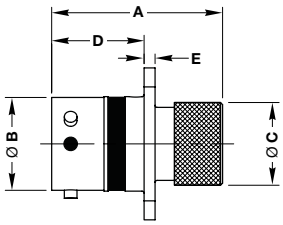


Shell Type 0 Panel Detail
Panel Thickness = 2.25 Max. (0.089)





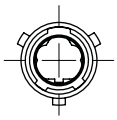
Square Flange Receptacle
Shell Style 00

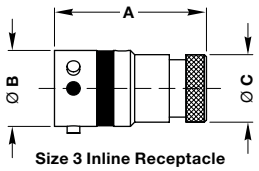


Square Flange Receptacle
Shell Style 10

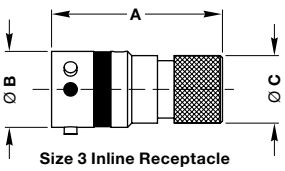
Shell Size	Shell Style	Knurl	A Max	ØB Max	ØC Max	D Max	E Max	F Max	G	ØH Min	ØX	ØY	Z
03	00	Short	18.20 (.717)	9.15 (.360)	8.20 (.323)	9.10 (.358)	1.50 (.059)	16.40 (.646)	11.46 (.451)	2.50 (.098)	11.00 (.433)	3.10 (.122)	11.46 (.451)
	10	Long	21.50 (.846)										
06	10	Long	20.45 (.805)	11.15 (.439)	10.05 (.396)	11.10 (.437)		18.20 (.717)	12.70 (.500)	2.50 (.098)	13.00 (.512)	3.10 (.122)	12.70 (.500)

In-Line Receptacle: Shell Style 1

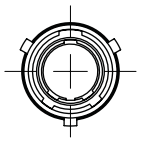


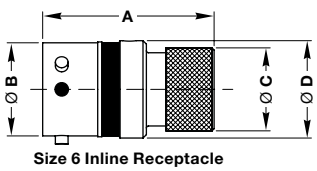


Size 3 Inline Receptacle
Shell Style 01



Size 3 Inline Receptacle
Shell Style 11



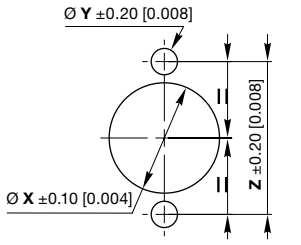


Size 6 Inline Receptacle
Shell Style 11

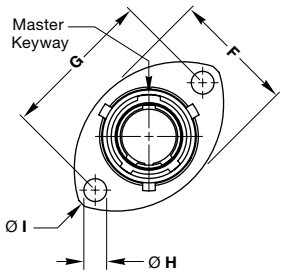
Shell Size	Shell Style	Knurl	A Max.	ØB Max.	ØC Max.	D Max.
03	01	Short	18.20 (.716)	9.15 (.360)	8.20 (.323)	N/A
	11	Long	20.45 (.805)			
06	11	Long	20.45 (.805)	11.15 (.439)	10.05 (.396)	11.75 (.462)

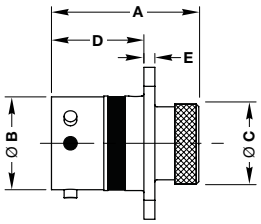
Wildcat Micro Connectors

2-Hole Flanged Receptacle: Shell Type 2

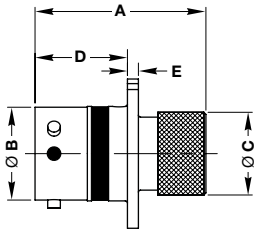


Shell Type 2 Panel Detail
Panel Thickness = 2.25 Max. (0.089)





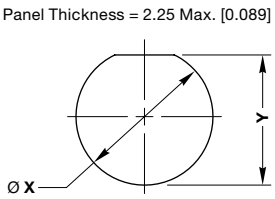
2 Hole Flange Receptacle
Shell Style 02



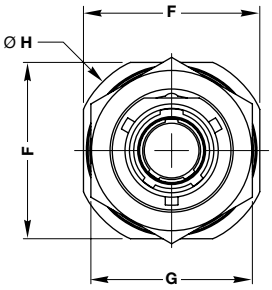
2 Hole Flange Receptacle
Shell Style 12

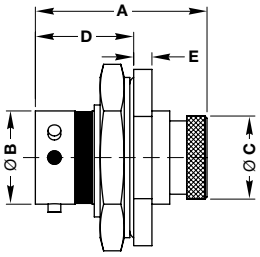
Shell Size	Shell Style	Knurl	A Max.	ØB Max.	ØC Max.	D Max.	E Max.	F Max.	G	ØH Min.	ØI Max.	ØX	ØY	Z
03	02	Short	18.20 (.717)	9.15 (.360)	8.20 (.323)	9.10 (.358)	1.50 (.059)	13.40 (.528)	16.20 (.638)	2.50 (.098)	20.75 (.817)	11.00 (.433)	3.10 (.122)	16.20 (.638)
	12	Long	21.50 (.805)											
06	12	Long	20.45 (.805)	11.15 (.439)	10.45 (.396)	11.10 (.437)	1.50 (.059)	14.85 (.585)	18.00 (.709)	2.50 (.098)	22.70 (.894)	13.00 (.512)	3.10 (.122)	18.00 (.709)

Jam Nut Receptacle: Shell Type 4

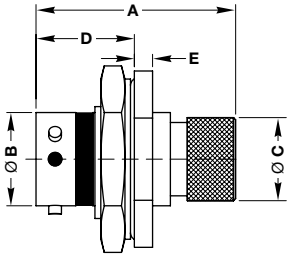


Jam Nut Receptacle Detail
Shell Style 4





Jam Nut Receptacle
Shell Style 04

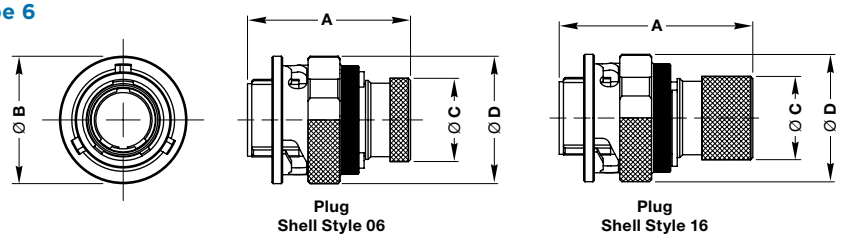


Jam Nut Receptacle
Shell Style 14

Shell Size	Shell Style	Knurl	A Max.	ØB Max.	ØC Max.	D Max.	E Max.	F Max.	G Max.	ØH Max.	ØX	Y
03	04	Short	18.20 (.717)	9.15 (.360)	8.20 (.323)	11.60 (.457)	2.35 (.093)	19.00 (.748)	17.10 (.673)	21.15 (.833)	12.20 (.480)	11.82 (.465)
	14	Long	21.50 (.846)									
06	04	Short	20.45 (.805)	11.15 (.439)	10.45 (.396)	11.70 (.461)		21.00 (.827)	19.25 (.758)	23.15 (.911)	13.97 (0.55)	13.25 (0.52)
	14	Long	23.75 (.935)									

Wildcat Micro Connectors

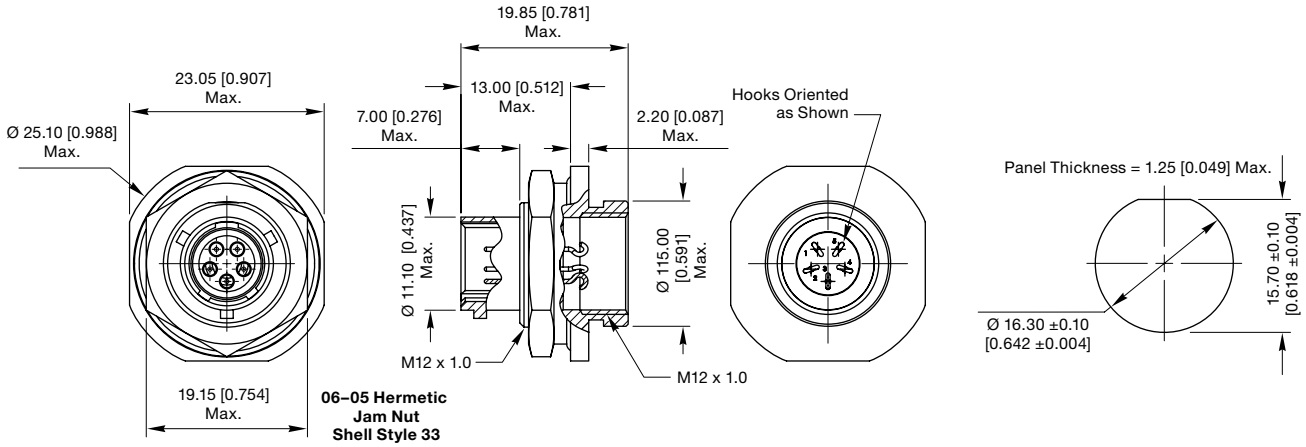
Free Plug: Shell Type 6



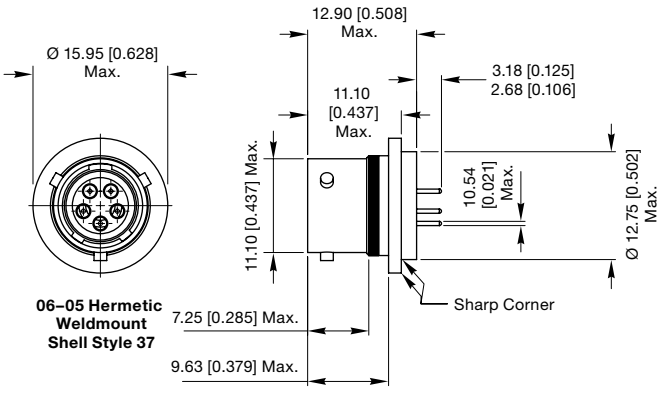
Shell Size	Shell Style	Knurl	A Max.	ØB Max.	ØC Max.	ØD Max.	
						Scalloped (Standard)	Knurled (Option Code 'KCR')
03	06	Short	18.50 (.728)	12.50 (0.492)	7.75 (0.305)	12.45 (0.490)	11.40 (0.449)
	16	Long	22.45 (.884)				
06	06	Short	19.40 (.764)	15.15 (0.596)	10.00 (0.394)	15.10 (0.594)	13.55 (0.533)
	16	Long	23.00 (.906)				

HERMETIC RECEPTACLES

Jam Nut Hermetic: Shell Type 3 (06–05 Arrangement)

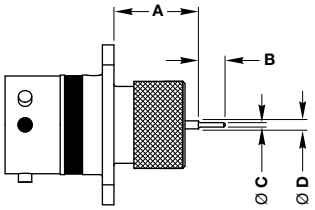


Weld-Mount Hermetic: Shell Type 7 (06–05 Arrangement)



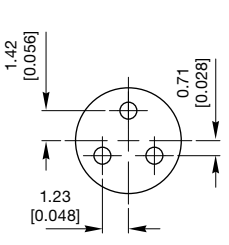
Wildcat Micro Connectors

PCB Tail Dimensions
Square Flange Receptacle

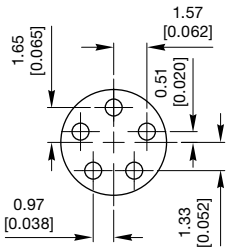


Layout	Part No. Option Code	Contact Tail	Part No.		A		B Max.	ØC Max.	ØD Max.
			Pin	Socket	Max.	Min.			
03-03	-110	Long	605679-31	605681	15.03 (.592)	13.92 (.548)	3.05 (.120)	.70 (.028)	1.23 (.048)
	-111	Short	610292-31	610944	9.83 (.387)	8.72 (.343)	3.05 (.120)	.70 (.028)	1.23 (.048)
03-05	-120	Long	610006-31	610008	15.71 (.619)	14.58 (.574)	3.05 (.120)	.57 (.022)	.94 (.037)
	-121	Short	610294-31	610945	10.71 (.422)	9.58 (.377)	3.05 (.120)	.57 (.022)	.94 (.037)
06-05	-130	Long	604990-31	604992	14.91 (.587)	14.12 (.556)	3.05 (.120)	.57 (.022)	1.26 (.050)
	-131	Short	610293-31	610916	9.91 (.390)	8.12 (.320)	3.05 (.120)	.57 (.022)	1.26 (.050)
06-09	-140	Long	610006-31	610008	14.92 (.587)	14.14 (.557)	3.05 (.120)	.57 (.022)	.94 (.037)
	-141	Short	610294-31	610945	9.92 (.391)	9.14 (.360)	3.05 (.120)	.57 (.022)	.94 (.037)

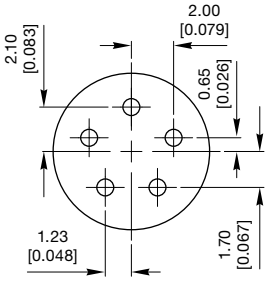
PCB Layout



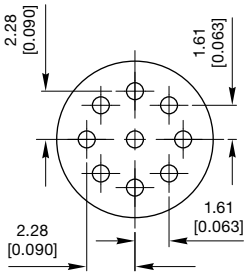
03–03



03–05



06–05

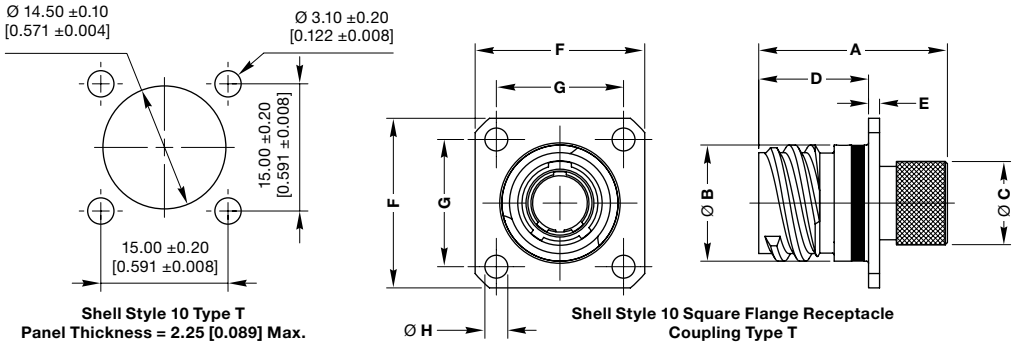


06–09

Wildcat Micro Connectors

TRIPLE START THREADED

Square Flange Receptacle, Threaded: Shell Type 0



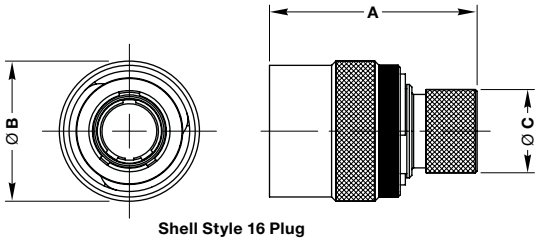
Shell Style 10 Type T
Panel Thickness = 2.25 [0.089] Max.

Shell Style 10 Square Flange Receptacle
Coupling Type T

Shell Size	A Max.	ØB Max.	ØC Max.	D Max.	E Max.	F Max.	G	ØH Min.
06	22.45 (.884)	13.85 (.545)	10.05 (.396)	13.10 (.516)	1.50 (.059)	20.20 (.795)	15.00 (.590)	2.50 (.098)

Note: Threaded version available in shell size 6 and long knurl only.

Free Plug, Threaded: Shell Type 6



Shell Style 16 Plug
Coupling Type T

Shell Size	A Max.	ØB Max.	ØC Max.
06	24.65 (.970)	16.75 (.659)	10.05 (.396)

CONTACTS AND TOOLING

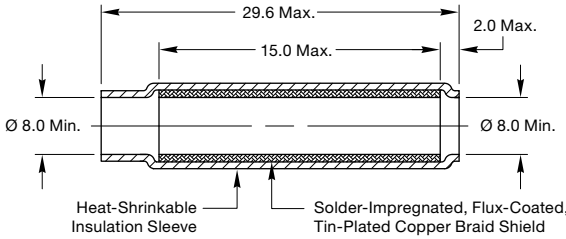
Layout	Contact Part No.		Current Rating	Wire Size (AWG)	Conductor		Wire Sealing Range		Filler Plug	Ins/Ext Tool	Crimp Tool	Positioner	
	Pin	Socket			Ø Min.	Ø Max.	Ø Min.	Ø Max.				Pin	Socket
03-03	604946-31	604984	5 A	22–26	.32 (.013)	.79 (.031)	.60 (.030)	1.37 (.054)	600300-22	M81969/14-01	M22520/2-01	605463	605464
03-05	605705-31	605704	3 A	24–28	.25 (.010)	.51 (.020)	.60 (.024)	.96 (.038)	600300-24	605837		605839	605840
06-05	604927-31	604935	3 A	22–26	.32 (.013)	.79 (.031)	.60 (.024)	1.37 (.054)	600300-22	M81969/14-01		604972	604973
06-09	605705-31	605704	3 A	24–28	.25 (.010)	.51 (.020)	.60 (.024)	.96 (.038)	600300-24	605837		605839	605840
06-09*	610760-31	610539	3 A	22–26	.25 (.010)	.51 (.020)	.60 (.024)	.96 (.038)	600300-24	Non-Removable		610948	610947

*Specifically for the '-220' option code: -220 option code should be used to order with these contacts for 22 AWG wire (see ordering information).

Wildcat Micro Connectors

MIL-STD-1553b

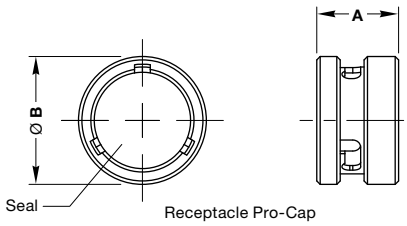
Wildcat Micro connectors are also compatible with the MIL-STD-1553b Data Bus protocol. The connectors, in conjunction with a SolderShield device, offer a unique controlled-solder termination for shielded twisted pair cable. The solder termination is a heat-shrinkable device that provides shield continuity, excellent strain relief, and a low-profile termination. The device is also easily removed for repair purposes by heating it above the melt point of the solder and removing it from the backend of the connector body. Consult TE for more information.

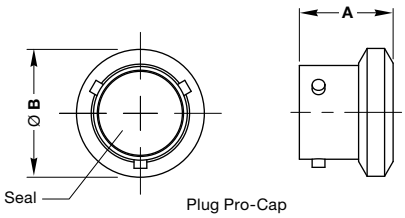


SolderSleeve Device
Part No. B-202-81-03

ACCESSORIES

Protective Caps





Type	Shell Size	A Max.	ØB Max.	Part No.
Receptacle	03	8.80 (.346)	12.55 (.494)	605684-12
	06	9.80 (.386)	15.20 (.598)	604029-12
Plug	03	11.20 (.441)	12.55 (.494)	605687-12
	06	11.20 (.441)	15.20 (.598)	604027-12

-12 = Cadmium olive drab, -58 = Nickel

Raychem Heat-Shrink Boots

Shell Size	Straight Boot	90˚ Boot
03	204W221-25-G03	224W221-25-G03
06	204W221	224W221

CRES-Lock Bandstraps

Easy to Use
- Quick, easy, cost-effective and reliable termination of braided shielding

High Performance
- Low profile, one-piece design eliminates EMI leakage paths

Rugged
- Shock, vibration and environmental tested to meet aerospace and defense requirements

Raytronics AG, Bösch 37, CH-6331 Hünenberg, Tel: +41 41 768 65 75, Fax: +41 41 768 65 80
E-Mail: info@raytronics.ch, Webseite: www.raytronics.ch, www.schrumpfschlauch.ch

Wildcat Micro Connectors

ORDERING INFORMATION

Part Number Example: WM 0 6 B W 06-05 S N - ****

Series:
Wildcat Micro

Shell Rear Accessory:
0 = Short Knurl—Boot Mounting
(Short Knurl not available for Shell Type 0, Type 1 (Shell Size 06) or Type 2)
1 = Long Knurl—Cable Screen Braid and Boot Mounting
3 = No Accessory (e.g. Hermetic Box Mount)

Shell Type:
0 = Square Flange Receptacle
1 = In-line Receptacle
2 = 2 Hole Flange Receptacle
3 = Hermetic Jam Nut
4 = Jam Nut Receptacle
6 = Free Plug
7 = Hermetic Weld Mount

Coupling Type:
B = Bayonet
T = Triple-start ACME Thread (Shell Size 06 only)

Class Code:
W = Aluminum with Olive Drab Cadmium
F = Aluminum with Electroless Nickel
Z = Aluminum with Zinc Nickel
U = Aluminum with Zinc Cobalt

Shell Size—Insert Arrangement:
03-03 = Shell Size 3, 3 Positions
03-05 = Shell Size 3, 5 Positions
06-05 = Shell Size 6, 5 Positions
06-09 = Shell Size 6, 9 Positions

Contact Type:
P = Pin
S = Socket

Keying:
N = Normal
U = Universal
A, B, C, D, E

Option Code (3 digits) **or Modification Code:**
090 = Supplied without Contacts
1xx = PCB Contact (see PCB option table for code)
220 = Crimp Contacts for 22AWG Wire (non-removable, ordered with 06-09 only)