... A Vital Part of Connection World

CMPTER®

- Cable Connectors
- PCB Connectors
- Assembly Instructions
- Mounting Holes

MCX CONNECTORS

MCX Series Coaxial Connectors

DESCRIPTION

MCX connector are developed in Europe during the 1980s, use a snap-on interface, a blend of size, reliability and performance, Though smaller and lighter than the SMB by approximately 30%, the MCX still preserves the SMB's inner contact and overlapping dielectric insulator dimensions so that it can provide consistent electronic performance from DC-6 GHz..

Miniature snap-on connectors which offer an excellent blend of size, weight, durability, and performance for applications such as GPS, wireless communication, base station,WLAN, fixed communication systems, testing, and instrumentation applications.

CONTENTS

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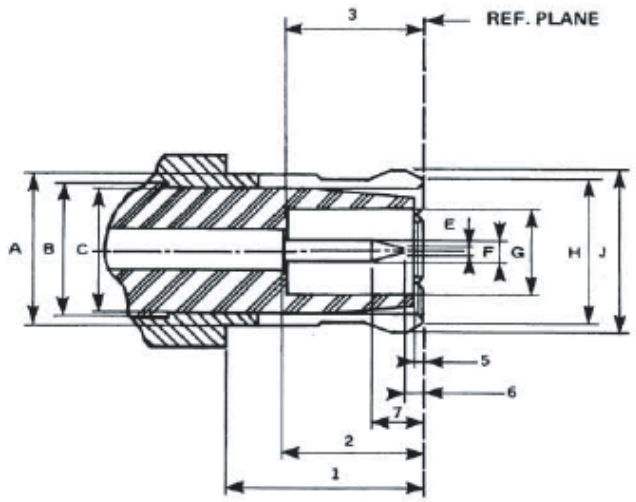
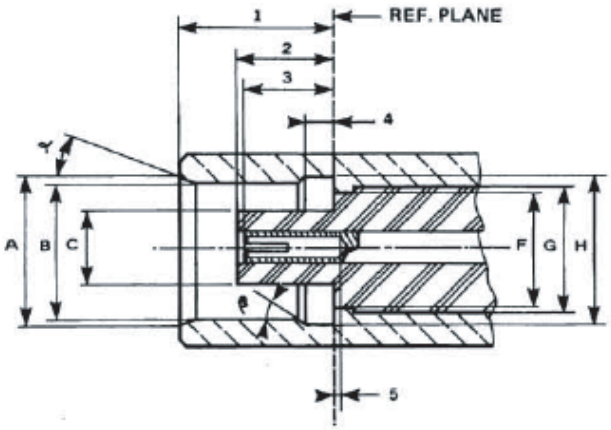
PLUG



JACK



LETTER	mm		inch	
	min.	max.	min.	max.
1	4. 15	-	.163	
2	2.80	3.2	.110	.126
3	2.80		.110	
5	0	0.30	0	.012
6	0.15		0.06	
7		1.20		0.47
A		3.40		1.34
B	3.05 NOM.		.120 NOM.	
C		3.00		.118
E		0.25		0.10
F	0.48	0.53	0.19	.021
G	2.00		.079	
H		3.60		.142
J		3.80		.150

LETTER	mm		inch	
	min.	max.	min.	max.
1	4.00	4.12	.157	.162
2	2.60	2.80	.102	.110
3	2.30	2.80	.090	.110
4	0.75	0.85	.029	.033
5	0		0	
α	18°	22°	18°	22°
β	43°	47°	43°	47°
A	3.80		.150	
B	3.42	3.48	.135	.137
C		1.98		.078
F		3.00		.118
G	3.05 NOM.		3.05 NOM.	
H	3.60	3.75	.142	.148

Interface dimensions conformable to the standards:

International: **IEC 61169-4**
Europe: **CECC 22190**
Germany: **DIN 47223, VG 95250**

IP rating (interface, mated) IP68

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TECHNICAL DATA

ELECTRICAL DATA	
Impedance	50 Ohm
Frequency range	DC 0-6 GHz
Voltage Rating	250 V peak
V.S.W.R.	Straight styles: 1.20 Right angle styles: 1.25
Insulation resistance	10,000 M Ω
Contact resistance	Center contact: 6 Ω ; Outer contact: 3 Ω

MECHANICAL DATA	
Mating	Slide-on, push-pull, threaded
Connector Durability (matings)	500 mating

MATERIAL DATA	
Male Contact	Brass
Female contact	Beryllium copper center and outer, gold plated
Insulator	Teflon
Crimp Ferrule	Copper

ENVIRONMENTAL	
Temperature Range	-40 °C to + 155 °C
Thermal shock	MIL STD 202 - method 107 condition C
High temperature test	MIL STD 202 - method 108A condition D
Corrosion	MIL STD 202 - method 101 condition B
Vibration	MIL STD 202, method 204, condition D

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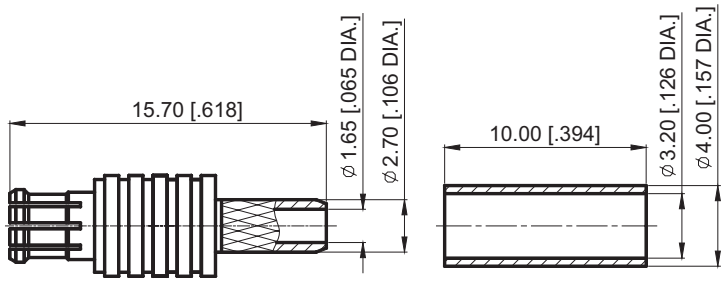
CABLE CONNECTORS

Straight cable plugs (male)

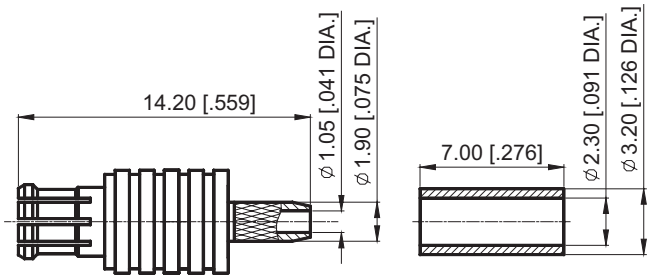
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-03-1M04-001	LMR100/RG174/RG316	Gold	Gold	A01	

- Cable entry crimp
- Centre contact soldered



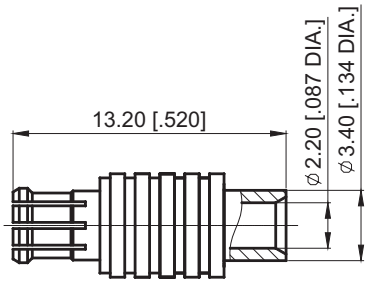
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-03-1M12-002	RG178	Gold	Gold	A01	

- Cable entry crimp
- Centre contact soldered



P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-03-2M11-004	Semi-rigid .086/RG405	Gold	Gold	A02	

- Cable entry soldered
- Centre contact soldered



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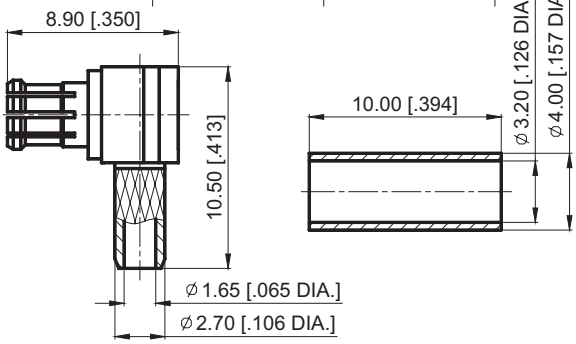
CABLE CONNECTORS

Right angle cable plugs (male)

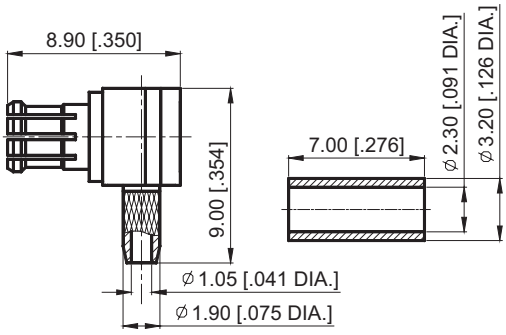
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-13-1M04-005	LMR100/RG174/RG316	Gold	Gold	A03	

- Cable entry crimp
- Centre contact soldered



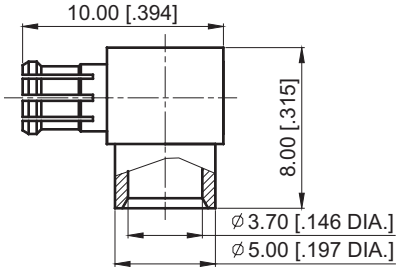
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-13-1M12-006	RG178	Gold	Gold	A03	

- Cable entry crimp
- Centre contact soldered



P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-13-2M06-007	RG402/Semi-rigid .141	Gold	Gold	A04	

- Cable entry crimp
- Centre contact soldered



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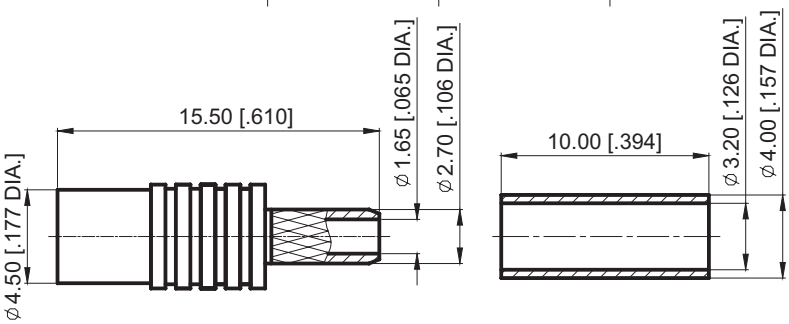
CABLE CONNECTORS

Straight cable jacks(female)

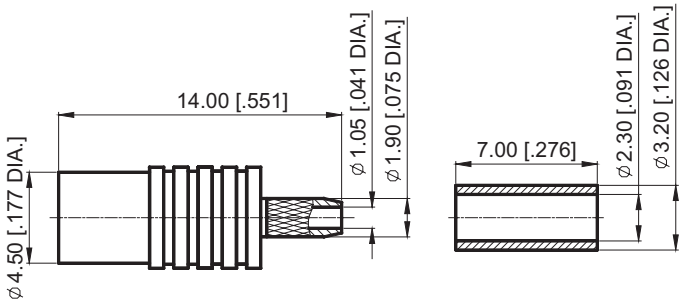
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-02-1M04-010	LMR100/RG174/RG316	Gold	Gold	A01	

- Cable entry crimp
- Centre contact soldered



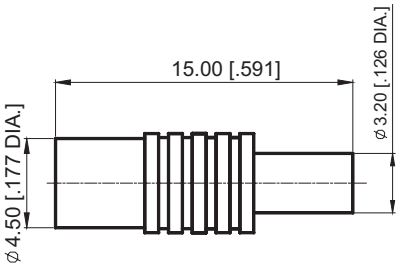
P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-02-1M12-011	RG178	Gold	Gold	A01	

- Cable entry crimp
- Centre contact soldered



P/N	Cable Type	Finish		Assembly Instruction	Notes
		Center	Body		
30-02-2M23-012	1.13mm/1.32mm/ 1.37mm Cable	Gold	Gold	A05	

- Cable entry solder
- Centre contact soldered



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PCB CONNECTORS

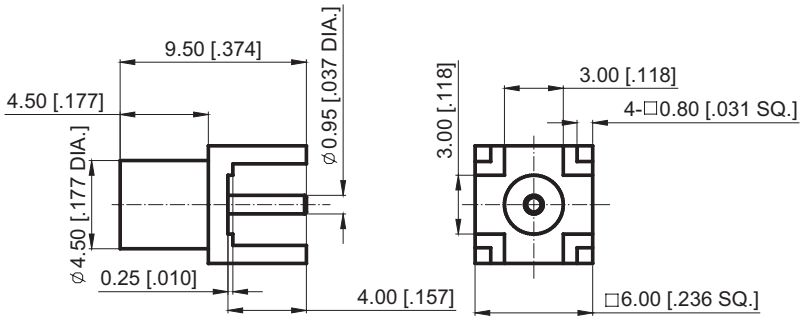
CMPTER®

RoHS

PCB jacks(female)

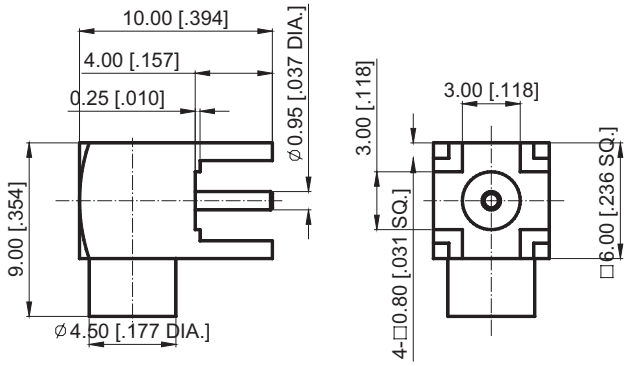
P/N	Mount Hole	Finish		Notes
		Center	Body	
30-02-5L2-013	M01	Gold	Gold	

> With stand-off



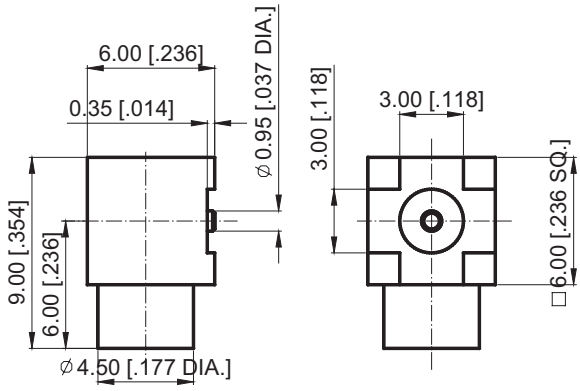
P/N	Soldering Pads	Finish		Notes
		Center	Body	
30-12-5L2-014	M01	Gold	Gold	

> With stand-off



P/N	Mount Hole	Finish		Notes
		Center	Body	
30-12-6L2-015	M02	Gold	Gold	

> SMT mounted



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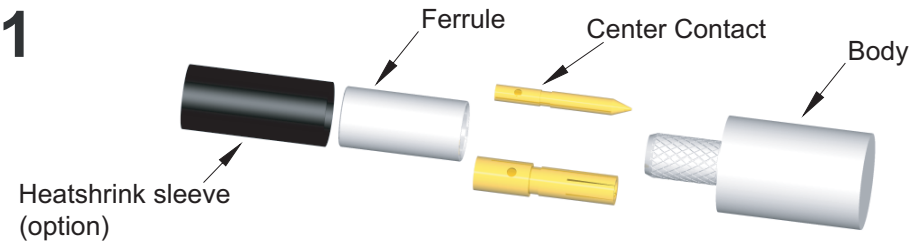
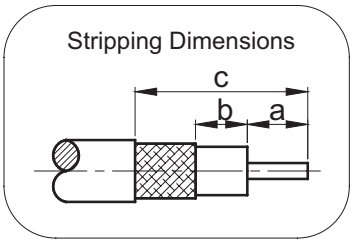
ASSEMBLY INSTRUCTIONS

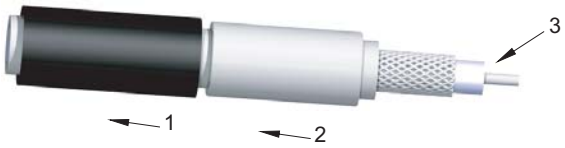
A01





P/N	Cable Type	HEX. Crimp Tool (mm [in])	Stripping Length (mm [in])		
			a	b	c
30-03-1M12-002	RG178	2.54 [.100]	2.5 [.098]	2 [.079]	8.5 [.335]
30-02-1M12-011					
30-03-1M04-001	LMR100/RG174/RG316	3.25 [.128]	2.5 [.098]	2 [.079]	10 [.394]
30-02-1M04-010					

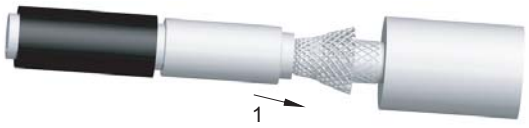
1. • Slide the heatshrink sleeve onto the cable (option).
   • Slide the ferrule onto the cable.
   • Strip the cable as Striping Dimensions.



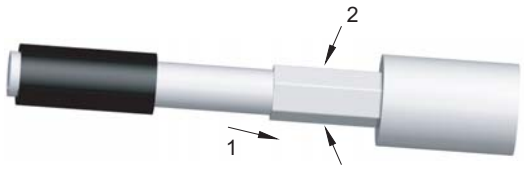
2. • Slide the center contact on until it bottom against the cable dielectric.
   • Solder the center contact onto the cable.

3. • Fan the braid.

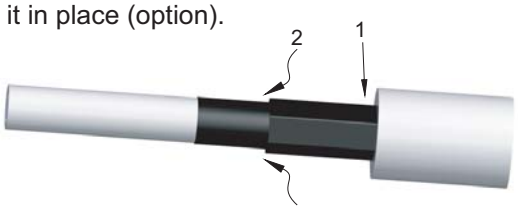
4. • Slide the cable into the body until stops.



5. • Slide the ferrule over the braid.
   • Crimp the ferrule with crimping tool (see table).



6. • Cut the excess of braid if necessary.
   • Slide the sleeve over the ferrule and heatshrink it in place (option).



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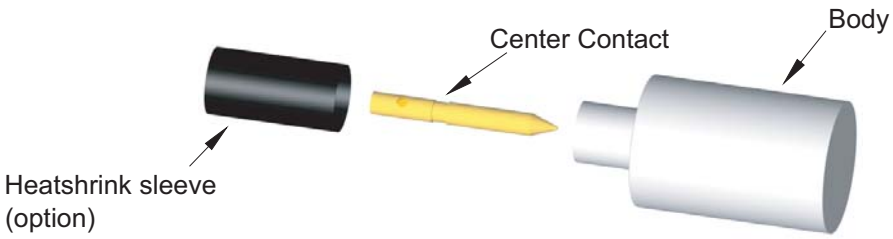
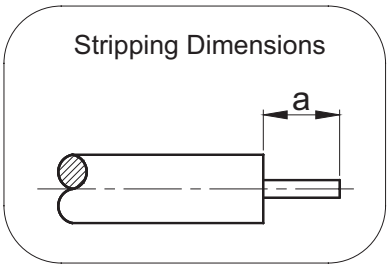
ASSEMBLY INSTRUCTIONS

A02



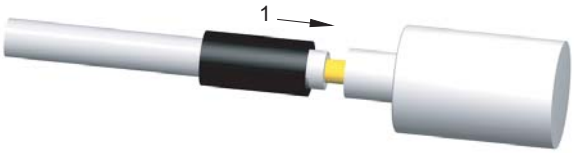


P/N	Cable Type	Stripping Length (mm [in])	Notes
30-03-2M11-004	RG405/Semi-rigid .086	3.00 [.118]	

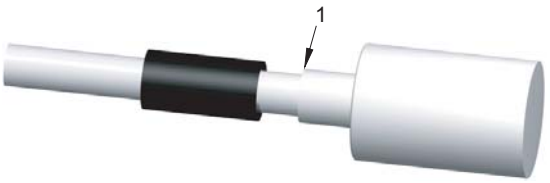
1. • Slide the heatshrink sleeve onto the cable (option).
   • Strip the cable as Striping Dimensions.

2. • Slide the center contact on until it bottom against the cable dielectric.
   • Solder the center contact onto the cable.

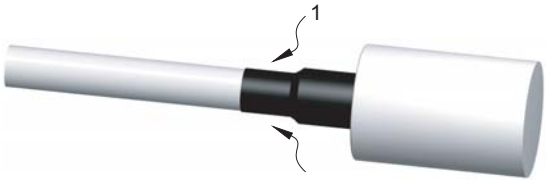
3. • Slide the cable into the body until it stops.



4. • Solder the body onto the cable.



5. • Slide the heatshrink sleeve over the body and heatshrink it in place (option).



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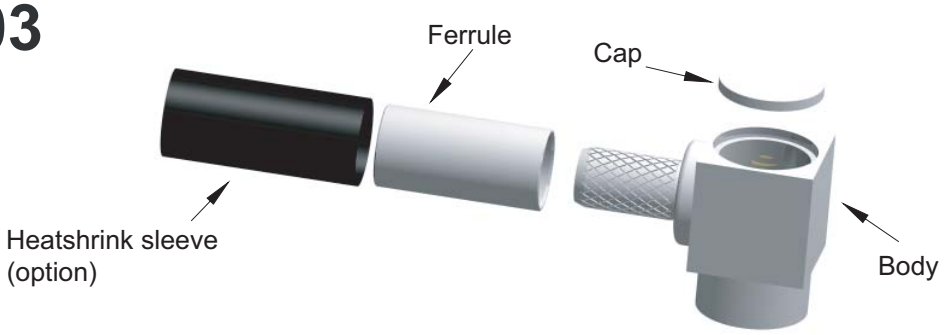
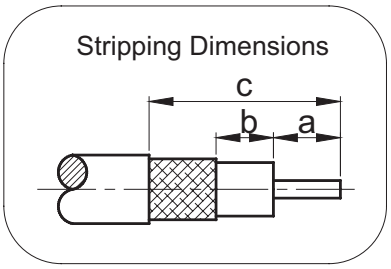
ASSEMBLY INSTRUCTIONS

A03



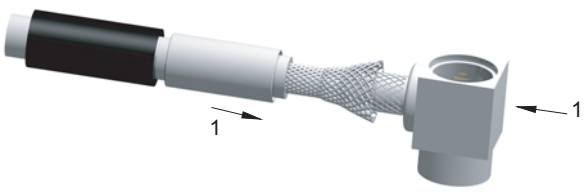


P/N	Cable Type	HEX. Crimp Tool (mm [in])	Stripping Length (mm [in])		
			a	b	c
30-13-1M12-006	RG178	2.54 [.100]	1.2 [.047]	2.3 [.091]	7.5 [.295]
30-13-1M04-005	LMR100/RG174/RG316	3.25 [.128]	1.2 [.047]	2.3 [.091]	9 [.354]

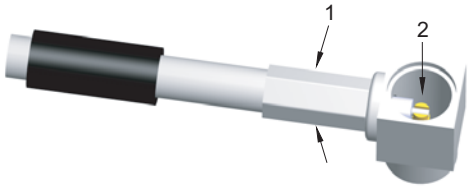
1. • Slide the heatshrink sleeve onto the cable (option).
   • Slide the ferrule onto the cable.
   • Strip the cable as Striping Dimensions.

2. • Fan the braid.

3. • Push the body under the braid.
   • Slide the ferrule over the braid.

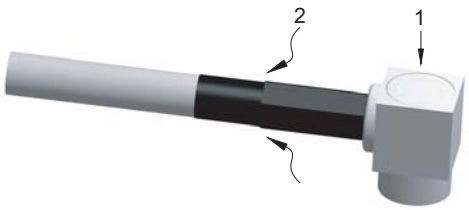


4. • Crimp the ferrule with crimping tool (see table).
   • Solder the inner conductor.



5. • Place the cap into the body.

6. • Press on the cap until stops.
   • Slide the sleeve over the ferrule and heatshrink it in place (option).



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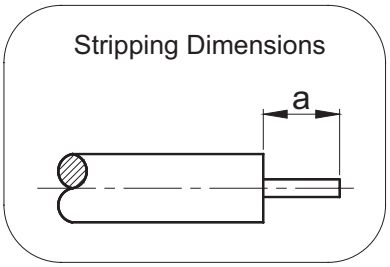
ASSEMBLY INSTRUCTIONS

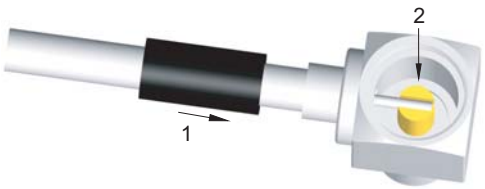
A04



P/N	Cable Type	Stripping Length (mm [in])	Notes
30-13-2M06-007	RG402/Semi-rigid .141	3 [.118]	

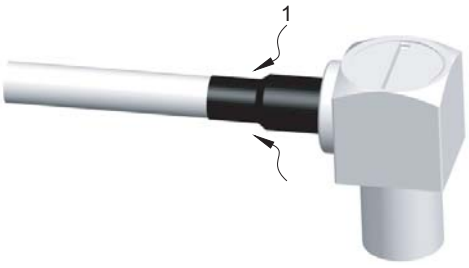
1. • Slide the heatshrink sleeve onto the cable (option).
   • Strip the cable as Striping Dimensions.

2. • Slide the cable into the body until it stops.
   • Solder the inner conductor.



3. • Solder the cable onto the body.
   • Screw the back nut onto the body.

4. • Slide the sleeve over the body and heatshrink it in place (option).



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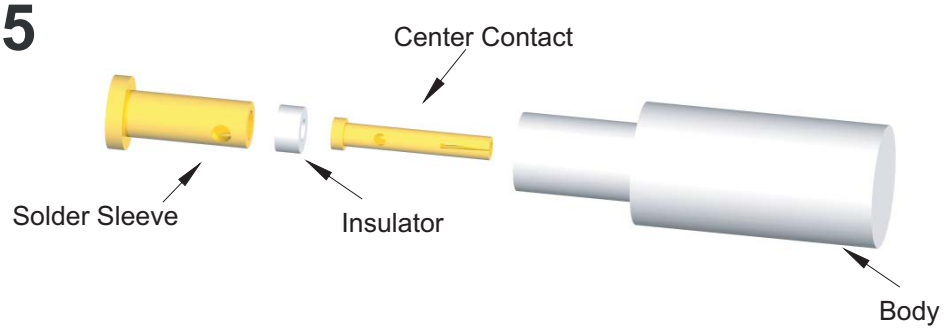
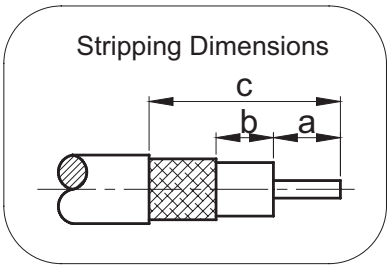
ASSEMBLY INSTRUCTIONS

A05





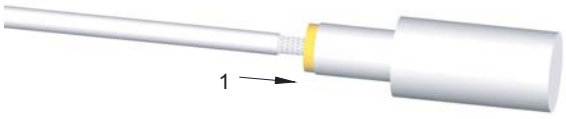
P/N	Cable Type	HEX. Crimp Tool (mm [in])	Stripping Length (mm [in])		
			a	b	c
30-03-1M12-002	1.13mm/1.32mm/1.37mm Cable	2.54 [.100]	2.5 [.098]	1 [.039]	11 [.433]

1. • Strip the cable as Striping Dimensions.
   • Soaking the inner and outer conductor with tin.

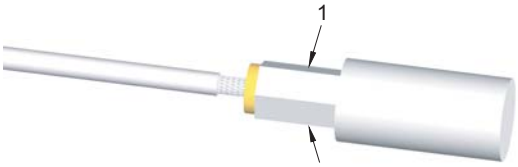
2. • Slide the Solder Sleeve onto the outerductor.
   • Solder the Solder Sleeve onto the cable (ensure the position of the Solder Sleeve).

3. • Slide the Insulator onto the dielectric until it stops.
   • Slide the Center Contact onto the cable until it stops.
   • Solder the Center Contact onto the cable.

4. • Slide the cable into body until it stops.



5. • Crimp the Body with crimping tool (see table).
   • Slide a Heatshrink Sleeve over the Body and heatshrink it in place (option).



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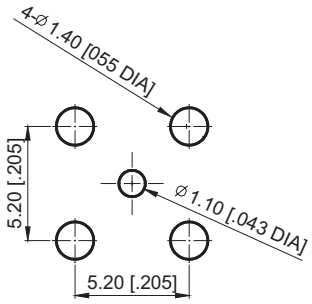
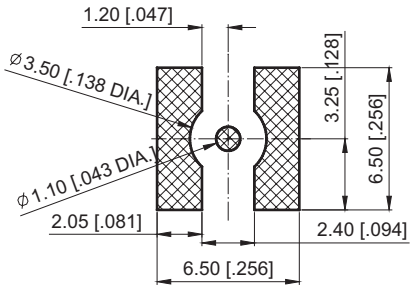
MOUNTING HOLES



M01



M02

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