

Conxall's Sensor-Link series includes the Mini-Mizer, AC Micro-Mizer, DC Micro-Mizer and the Nano-Mizer product lines, which are overmolded cable assemblies. The overmolding process provides for environmental sealing and strain relief for flexing applications.

Designed to meet or exceed the requirements of UL, CSA, NEMA, ANSI, IEC and SAE, the Sensor-Link series is intermateable and intermountable with other manufacturers equivalents. Conxall's strength is the combination of application experience and internal manufacturing capabilities that provide the knowledge and flexibility to meet and exceed the expectations of our customers.

Originally developed as an interconnect for a variety of sensing devices, the Sensor-Link series has found a wide range of applications as a general disconnect. Our exceptional quality, service and cost effectiveness makes Sensor-Link series the logical choice.

In our ongoing effort to expand our product offering, we are introducing our Mini and DC Micro Multi-Port box series. Offered with many options, these distribution boxes provide Conxall the opportunity to be a full service supplier to the sensor market.



## TABLE OF CONTENTS

Mini-Mizer® "A" Size .....	4-8
Mini-Mizer® EMI/RFI Shielded .....	9
Mini-Mizer® "C" Size .....	10-11
Mini-Mizer® Wiring Sequence Charts & Specifications .....	12-13
AC Metal Micro-Mizer® .....	14-17
DC Metal Micro-Mizer® .....	18-21
DC Plastic Micro-Mizer® .....	22-23
DC Micro-Mizer® EMI/RFI Shielded .....	24
Micro-Mizer® Wiring Sequence Charts & Specifications .....	25
Nano-Mizer® and Molded Cord Sets .....	26-27
Nano-Mizer® Wiring Sequence Charts and Specifications .....	28
Custom Overmolded Assembly Check List .....	29-30
Other Products .....	31

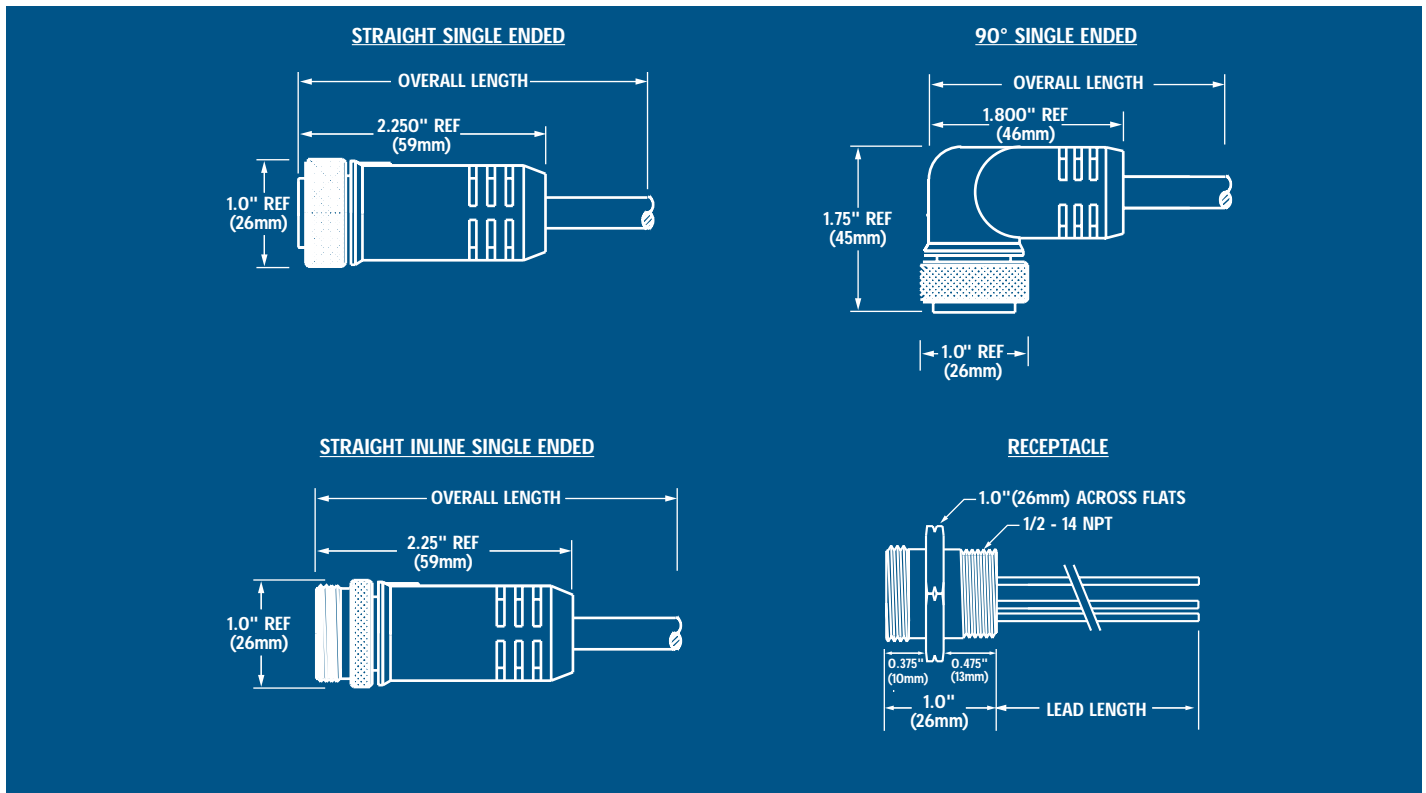
### Warranty

CONXALL® Corp. manufactures the finest quality products available to the marketplace. However, these products are intended to be used in accordance with the specifications described in this catalog. Any use or application that deviates from the stated operating specifications is not recommended and may be unsafe. A limited warranty applies to all CONXALL® Corp. products. Except for obligations specifically assumed by CONXALL® Corp. under warranty, CONXALL® Corp. will not be liable for any loss, damage, cost of repairs, incidental or consequential damages of any kind whether or not based upon expressed or implied warranty, contract, negligence, or strict liability arising in connection with the design, manufacture, sale, use or repair of the products.

All drawings contained in this document are for representational purposes only, and should not be for used final specifications or engineering.

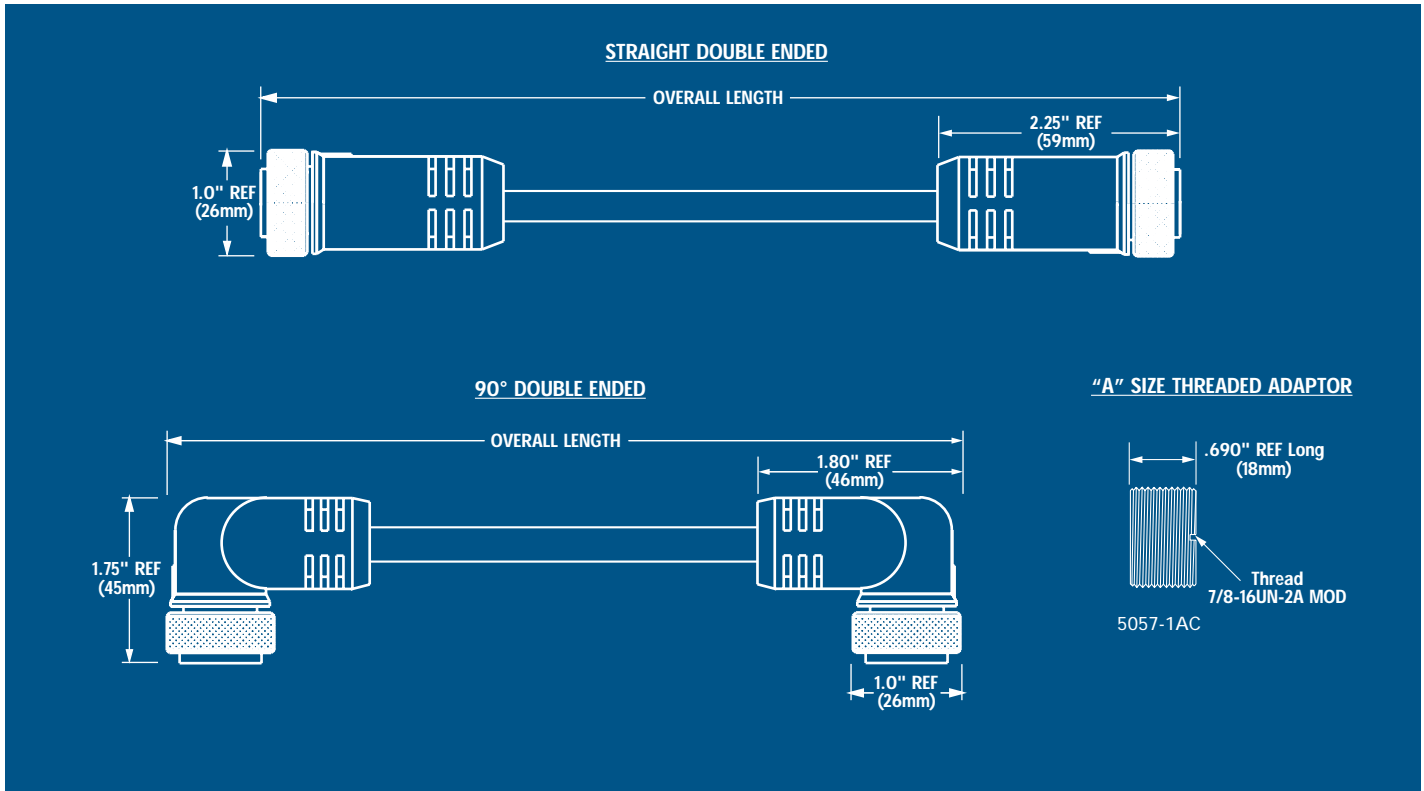
# SENSOR-LINK MINI-MIZER® "A" Size

## MOLDED CONNECTOR ASSEMBLIES



Face View Male	Rating	Overall Length Inches	Straight Male Single Ended	Straight Female Single Ended	90° Male Single Ended	90° Female Single Ended	Straight Inline Male Single Ended	Straight Inline Female Single Ended	Receptacle Male 12 Inch Leads
	13A 600V	36	162P36	162S36	182P36	182S36	192P36	192S36	
		72	162P72	162S72	182P72	182S72	192P72	192S72	172P12
		144	162P144	162S144	182P144	182S144	192P144	192S144	172PXXX
		Custom	162PXXXX	162SXXXX	182PXXXX	182SXXXX	192PXXXX	192SXXXX	
	13A 600V	36	163P36	163S36	183P36	183S36	193P36	193S36	
		72	163P72	163S72	183P72	183S72	193P72	193S72	173P12
		144	163P144	163S144	183P144	183S144	193P144	193S144	173PXXX
		Custom	163PXXXX	163SXXXX	183PXXXX	183SXXXX	193PXXXX	193SXXXX	
	10A 600V	36	164P36	164S36	184P36	184S36	194P36	194S36	
		72	164P72	164S72	184P72	184S72	194P72	194S72	174P12
		144	164P144	164S144	184P144	184S144	194P144	194S144	174PXXX
		Custom	164PXXXX	164SXXXX	184PXXXX	184SXXXX	194PXXXX	194SXXXX	
	8A 600V	36	165P36	165S36	185P36	185S36	195P36	195S36	
		72	165P72	165S72	185P72	185S72	195P72	195S72	175P12
		144	165P144	165S144	185P144	185S144	195P144	195S144	175PXXX
		Custom	165PXXXX	165SXXXX	185PXXXX	185SXXXX	195PXXXX	195SXXXX	
	8A 600V	36	166P36	166S36	186P36	186S36	196P36	196S36	
		72	166P72	166S72	186P72	186S72	196P72	196S72	176P12
		144	166P144	166S144	186P144	186S144	196P144	196S144	176PXXX
		Custom	166PXXXX	166SXXXX	186PXXXX	186SXXXX	196PXXXX	196SXXXX	

XXXX – Indicates "overall length / lead length" in inches.  
 For mechanical, electrical and wiring sequence see pages 12 & 13.



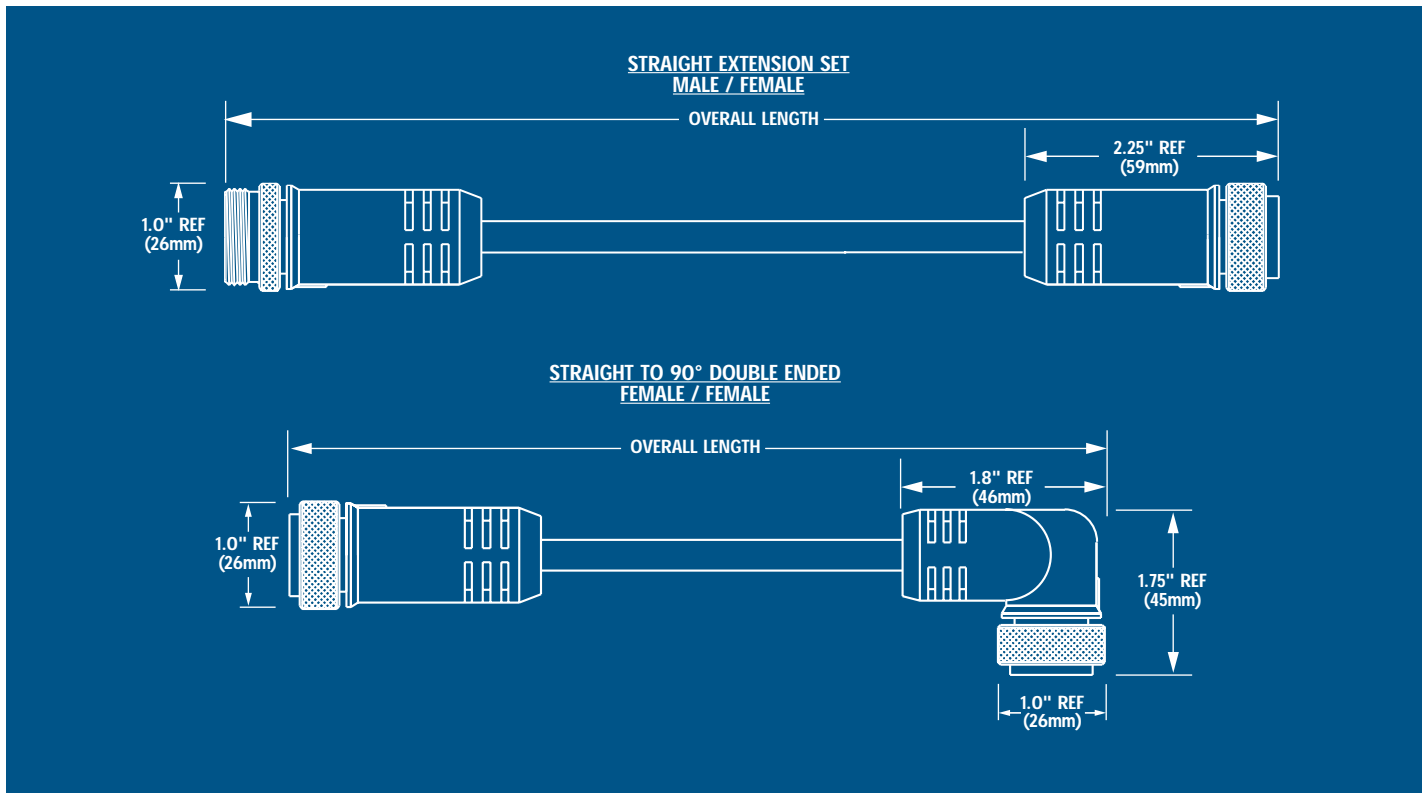
Receptacle Female 12 Inch Leads	Straight Male /Male Double Ended	Straight Female /Female Double Ended	Straight Male /Female Double Ended	90° Male /Male Double Ended	90° Female /Female Double Ended	90° Male /Female Double Ended
	562P2P36	562S2S36	562P2S36	542P2P36	542S2S36	542P2S36
172S12	562P2P72	562S2S72	562P2S72	542P2P72	542S2S72	542P2S72
172SXXX	562P2P144	562S2S144	562P2S144	542P2P144	542S2S144	542P2S144
	562P2PXXXX	562S2SXXXX	562P2SXXXX	542P2PXXXX	542S2SXXXX	542P2SXXXX
	563P3P36	563S3S36	563P3S36	543P3P36	543S3S36	543P3S36
173S12	563P3P72	563S3S72	563P3S72	543P3P72	543S3S72	543P3S72
173SXXX	563P3P144	563S3S144	563P3S144	543P3P144	543S3S144	543P3S144
	563P3PXXXX	563S3SXXXX	563P3SXXXX	543P3PXXXX	543S3SXXXX	543P3SXXXX
	564P4P36	564S4S36	564P4S36	544P4P36	544S4S36	544P4S36
174S12	564P4P72	564S4S72	564P4S72	544P4P72	544S4S72	544P4S72
174SXXX	564P4P144	564S4S144	564P4S144	544P4P144	544S4S144	544P4S144
	564P4PXXXX	564S4SXXXX	564P4SXXXX	544P4PXXXX	544S4SXXXX	544P4SXXXX
	565P5P36	565S5S36	565P5S36	545P5P36	545S5S36	545P5S36
175S12	565P5P72	565S5S72	565P5S72	545P5P72	545S5S72	545P5S72
175SXXX	565P5P144	565S5S144	565P5S144	545P5P144	545S5S144	545P5S144
	565P5PXXXX	565S5SXXXX	565P5SXXXX	545P5PXXXX	545S5SXXXX	545P5SXXXX
	566P6P36	566S6S36	566P6S36	546P6P36	546S6S36	546P6S36
176S12	566P6P72	566S6S72	566P6S72	546P6P72	546S6S72	546P6S72
176SXXX	566P6P144	566S6S144	566P6S144	546P6P144	546S6S144	546P6S144
	566P6PXXXX	566S6SXXXX	566P6SXXXX	546P6PXXXX	546S6SXXXX	546P6SXXXX



XXXX – Indicates “overall length / lead length” in inches.  
 For mechanical, electrical and wiring sequence see pages 12 & 13.

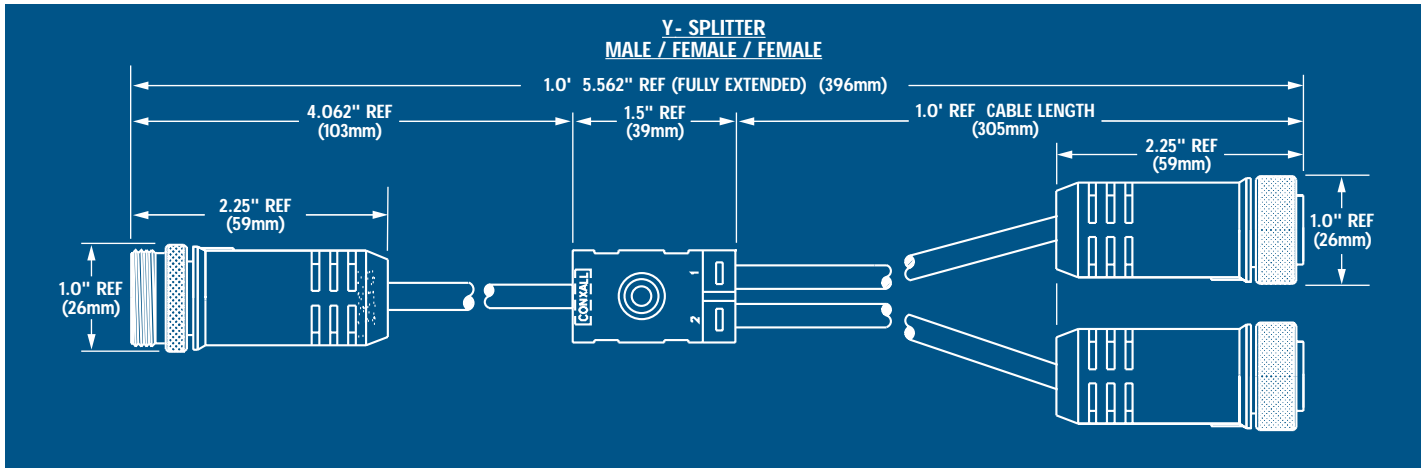
# SENSOR-LINK MINI-MIZER® "A" Size

## MOLDED CONNECTOR ASSEMBLIES



Face View Male	Rating	Overall Length Inches	Straight Extension Set Male /Female Double Ended	Straight Extension Set Female /Male Double Ended	Straight to 90° Male /Male Double Ended	Straight to 90° Female /Female Double Ended	Straight to 90° Male /Female Double Ended	Straight to 90° Female /Male Double Ended
	13A 600V	36	512P2S36	512S2P36	552P2P36	552S2S36	552P2S36	552S2P36
		72	512P2S72	512S2P72	552P2P72	552S2S72	552P2S72	552S2P72
		144	512P2S144	512S2P144	552P2P144	552S2S144	552P2S144	552S2P144
		Custom	512P2SXXXX	512S2PXXXX	552P2PXXXX	552S2SXXXX	552P2SXXXX	552S2PXXXX
	13A 600V	36	513P3S36	513S3P36	553P3P36	553S3S36	553P3S36	553S3P36
		72	513P3S72	513S3P72	553P3P72	553S3S72	553P3S72	553S3P72
		144	513P3S144	513S3P144	553P3P144	553S3S144	553P3S144	553S3P144
		Custom	513P3SXXXX	513S3PXXXX	553P3PXXXX	553S3SXXXX	553P3SXXXX	553S3PXXXX
	10A 600V	36	514P4S36	514S4P36	554P4P36	554S4S36	554P4S36	554S4P36
		72	514P4S72	514S4P72	554P4P72	554S4S72	554P4S72	554S4P72
		144	514P4S144	514S4P144	554P4P144	554S4S144	554P4S144	554S4P144
		Custom	514P4SXXXX	514S4PXXXX	554P4PXXXX	554S4SXXXX	554P4SXXXX	554S4PXXXX
	8A 600V	36	515P5S36	515S5P36	555P5P36	555S5S36	555P5S36	555S5P36
		72	515P5S72	515S5P72	555P5P72	555S5S72	555P5S72	555S5P72
		144	515P5S144	515S5P144	555P5P144	555S5S144	555P5S144	555S5P144
		Custom	515P5SXXXX	515S5PXXXX	555P5PXXXX	555S5SXXXX	555P5SXXXX	555S5PXXXX
	8A 600V	36	516P6S36	516S6P36	556P6P36	556S6S36	556P6S36	556S6P36
		72	516P6S72	516S6P72	556P6P72	556S6S72	556P6S72	556S6P72
		144	516P6S144	516S6P144	556P6P144	556S6S144	556P6S144	556S6P144
		Custom	516P6SXXXX	516S6PXXXX	556P6PXXXX	556S6SXXXX	556P6SXXXX	556S6PXXXX

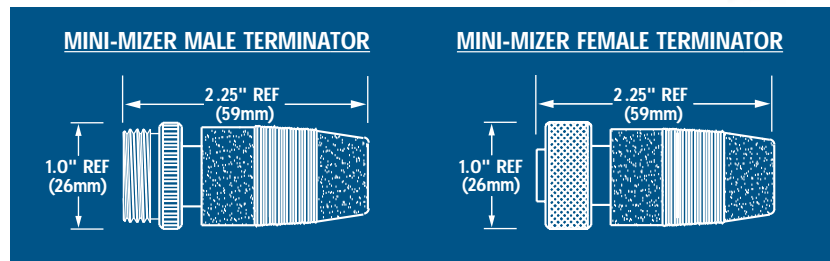
XXXX - Indicates "overall length" in inches.  
For mechanical, electrical and wiring sequence see pages 12 & 13.



Face View Male	Rating	Wiring Diagram	Cable Length Inches	Y-Splitter Female/Female Female	Y-Splitter Male/Female Female
	10A 300V		12 Custom	592S2S2S12 592S2S2SXXX	592P2S2S12 592P2S2SXXX
	10A 300V		12 Custom	593S3S3S12 593S3S3SXXX	593P3S3S12 593P3S3SXXX
	8A 300V		12 Custom	594S4S4S12 594S4S4SXXX	594P4S4S12 594P4S4SXXX
	6A 300V		12 Custom	595S5S5S12 595S5S5SXXX	595P5S5S12 595P5S5SXXX
	6A 300V		12 Custom	596S6S6S12 596S6S6SXXX	596P6S6S12 596P6S6SXXX

For insert combinations not shown - consult factory.

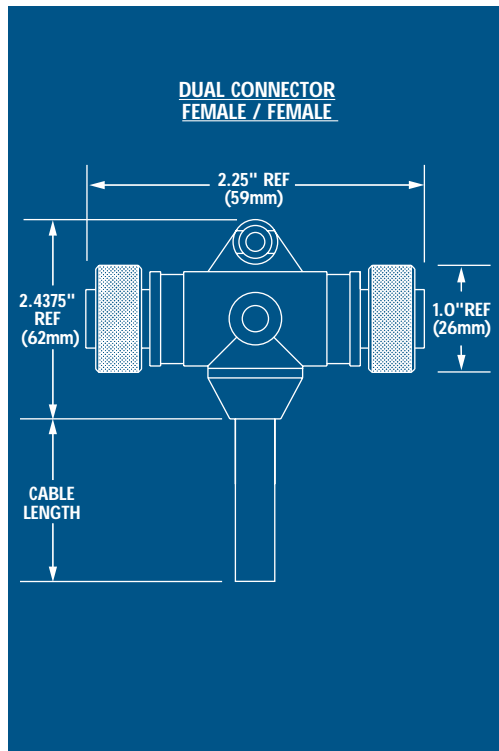
Face View Male	Rating	Terminator Male	Terminator Female
	8A, 600V	535P	535S



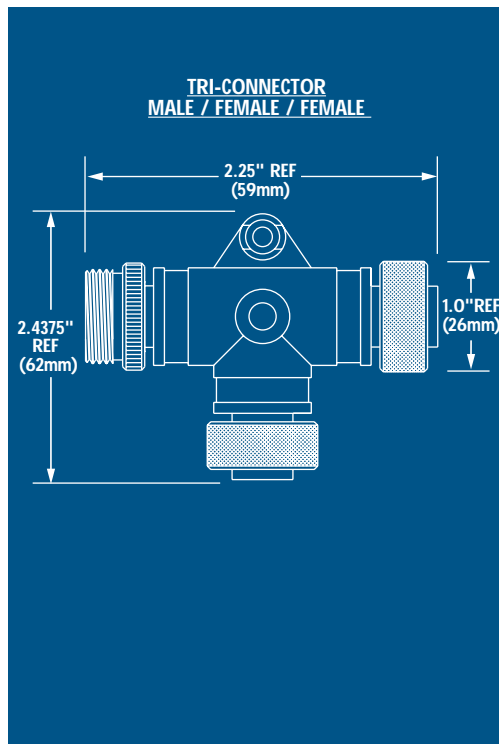
XXX - Indicates "cable length" in inches.  
For mechanical, electrical and wiring sequence see pages 12 & 13.

# SENSOR-LINK MINI-MIZER® "A" Size

## MOLDED CONNECTOR ASSEMBLIES



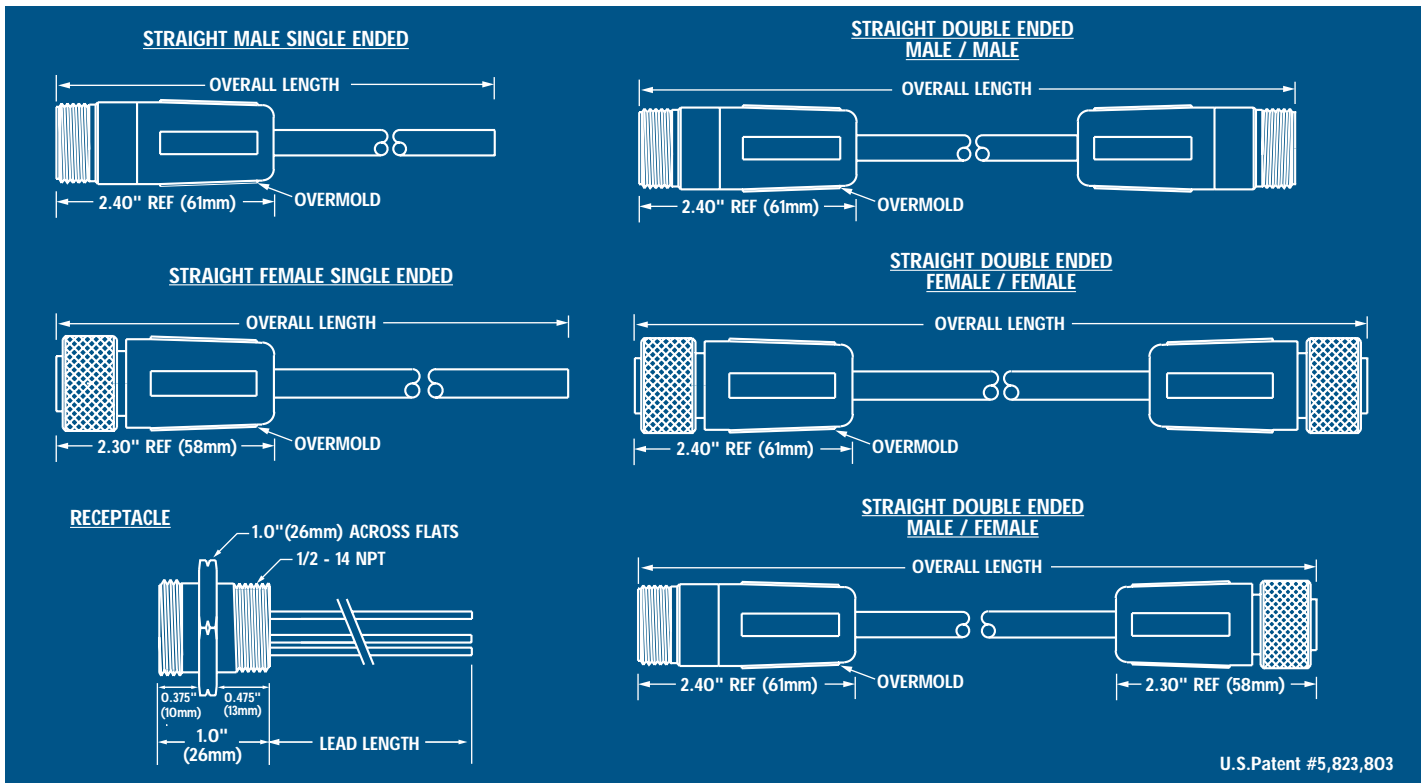
Face View Male	Rating	Wiring Diagram	Cable Length Inches	Dual Connector with Cable Male / Female	Dual Connector with Cable Female / Female
	13A 600V		36 Custom	572P2S36 572P2SXXX	572S2S36 572S2SXXX
	13A 600V		36 Custom	573P3S36 573P3SXXX	573S3S36 573S3SXXX
	10A 600V		36 Custom	574P4S36 574P4SXXX	574S4S36 574S4SXXX
	8A 600V		36 Custom	575P5S36 575P5SXXX	575S5S36 575S5SXXX
	8A 600V		36 Custom	576P6S36 576P6SXXX	576S6S36 576S6SXXX



Face View Male	Rating	Wiring Diagram	Tri-Connector Male / Female Female	Tri-Connector Female / Female Female
	13A 600V		582P2S2S	582S2S2S
	13A 600V		583P3S3S	583S3S3S
	10A 600V		584P4S4S	584S4S4S
	8A 600V		585P5S5S	585S5S5S
	8A 600V		586P6S6S	586S6S6S

XXX – Indicates “cable length” in inches. For mechanical, electrical and wiring sequence see pages 12 & 13.  
For insert combinations not shown - consult factory.

# SENSOR-LINK MINI-MIZER<sup>®</sup> "A" Size EMI/RFI SHIELDED MOLDED CONNECTOR ASSEMBLIES



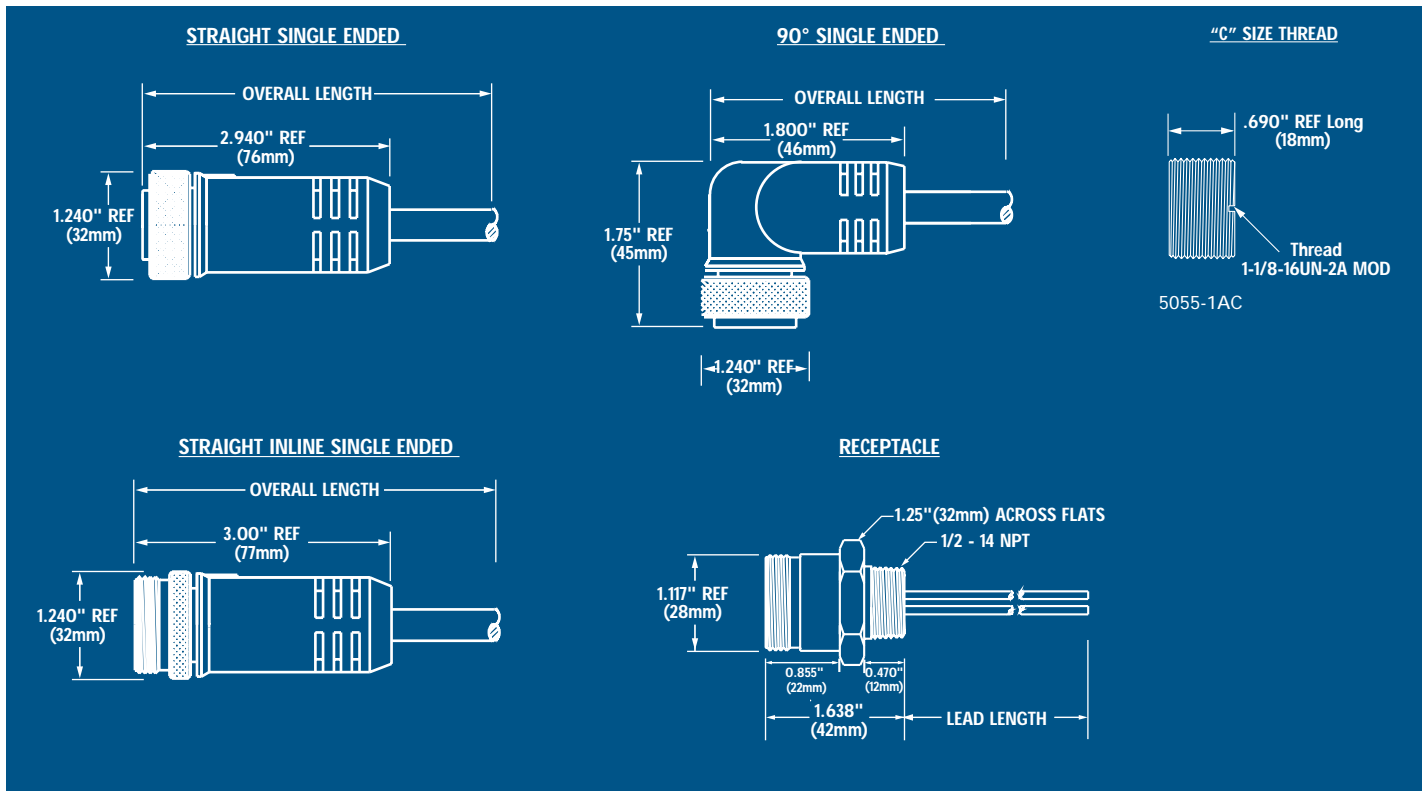
U.S. Patent #5,823,803

Face View Male	Rating	Overall Length Inches	Straight Male Single Ended	Straight Female Single Ended	Straight Male / Male Double Ended	Straight Female / Female Double Ended	Straight Male / Female Double Ended	Receptacle Male 12 Inch Cable
	13A 600V	36	SH162P36	SH162S36	SH562P2P36	SH562S2S36	SH562P2S36	
		72	SH162P72	SH162S72	SH562P2P72	SH562S2S72	SH562P2S72	SH172P12
		144	SH162P144	SH162S144	SH562P2P144	SH562S2S144	SH562P2S144	SH172PXXX
		Custom	SH162PXXXX	SH162SXXXX	SH562P2PXXXX	SH562S2SXXXX	SH562P2SXXXX	
	13A 600V	36	SH163P36	SH163S36	SH563P3P36	SH563S3S36	SH563P3S36	
		72	SH163P72	SH163S72	SH563P3P72	SH563S3S72	SH563P3S72	SH173P12
		144	SH163P144	SH163S144	SH563P3P144	SH563S3S144	SH563P3S144	SH173PXXX
		Custom	SH163PXXXX	SH163SXXXX	SH563P3PXXXX	SH563S3SXXXX	SH563P3SXXXX	
	10A 600V	36	SH164P36	SH164S36	SH564P4P36	SH564S4S36	SH564P4S36	
		72	SH164P72	SH164S72	SH564P4P72	SH564S4S72	SH564P4S72	SH174P12
		144	SH164P144	SH164S144	SH564P4P144	SH564S4S144	SH564P4S144	SH174PXXX
		Custom	SH164PXXXX	SH164SXXXX	SH564P4PXXXX	SH564S4SXXXX	SH564P4SXXXX	
	8A 600V	36	SH165P36	SH165S36	SH565P5P36	SH565S5S36	SH565P5S36	
		72	SH165P72	SH165S72	SH565P5P72	SH565S5S72	SH565P5S72	SH175P12
		144	SH165P144	SH165S144	SH565P5P144	SH565S5S144	SH565P5S144	SH175PXXX
		Custom	SH165PXXXX	SH165SXXXX	SH565P5PXXXX	SH565S5SXXXX	SH565P5SXXXX	
	8A 600V	36	SH166P36	SH166S36	SH566P6P36	SH566S6S36	SH566P6S36	
		72	SH166P72	SH166S72	SH566P6P72	SH566S6S72	SH566P6S72	SH176P12
		144	SH166P144	SH166S144	SH566P6P144	SH566S6S144	SH566P6S144	SH176PXXX
		Custom	SH166PXXXX	SH166SXXXX	SH566P6PXXXX	SH566S6SXXXX	SH566P6SXXXX	

XXXX - Indicates "overall length / cable length" in inches.  
For mechanical, electrical and wiring sequence see pages 12 & 13.

# SENSOR-LINK<sup>®</sup> MINI-MIZER "C" Size

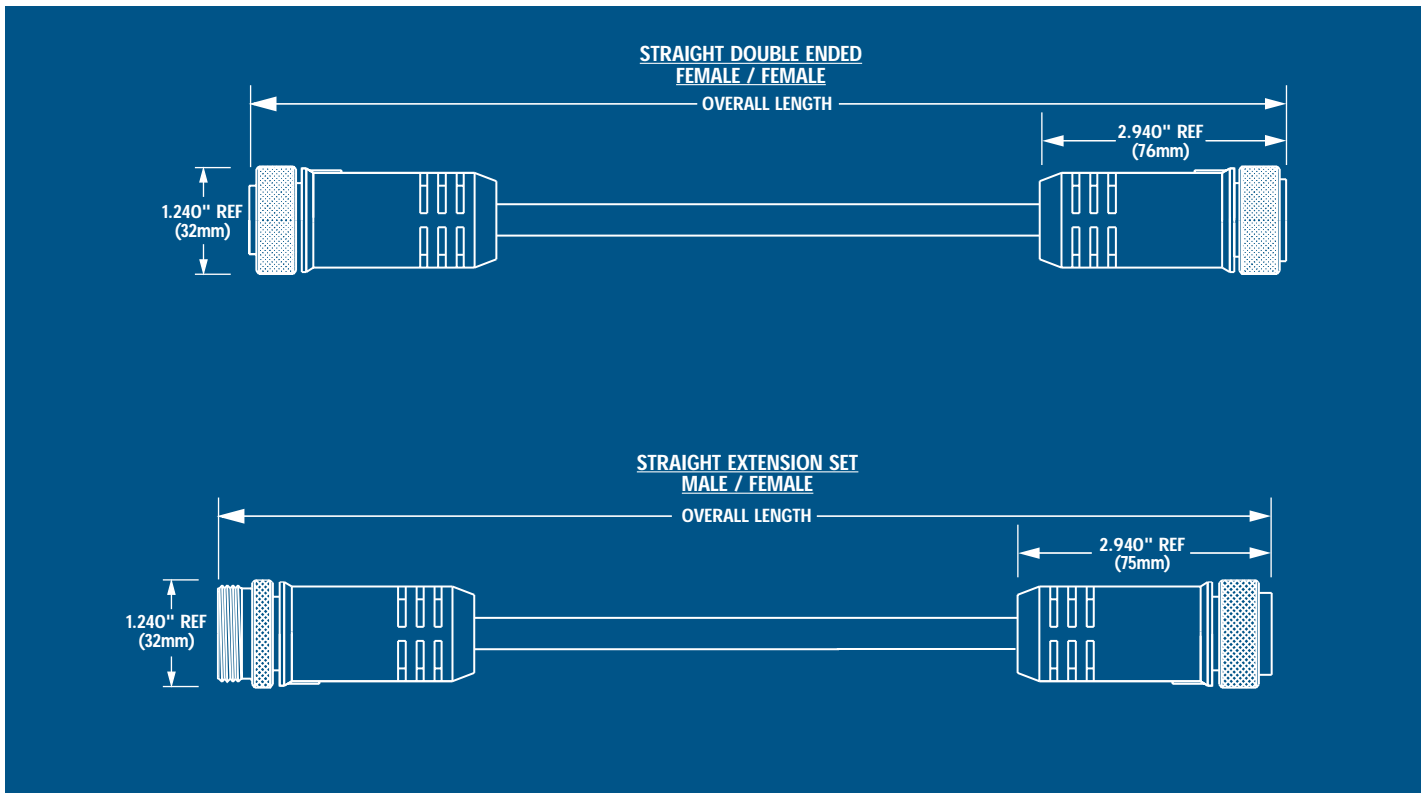
## MOLDED CONNECTOR ASSEMBLIES



Face View Male	Rating	Overall Length Inches	Straight Male Single Ended	Straight Female Single Ended	90° Male Single Ended	90° Female Single Ended	Straight Inline Male Single Ended	Straight Inline Female Single Ended
	7A 250V	36	169P36	169S36	189P36	189S36	199P36	199S36
		72	169P72	169S72	189P72	189S72	199P72	199S72
		144	169P144	169S144	189P144	189S144	199P144	199S144
		Custom	169PXXXX	169SXXXX	189PXXXX	189SXXXX	199PXXXX	199SXXXX
	7A 250V	36	1610P36	1610S36	1810P36	1810S36	1910P36	1910S36
		72	1610P72	1610S72	1810P72	1810S72	1910P72	1910S72
		144	1610P144	1610S144	1810P144	1810S144	1910P144	1910S144
		Custom	1610PXXXX	1610SXXXX	1810PXXXX	1810SXXXX	1910PXXXX	1910SXXXX
	7A 250V	36	1612P36	1612S36	1812P36	1812S36	1912P36	1912S36
		72	1612P72	1612S72	1812P72	1812S72	1912P72	1912S72
		144	1612P144	1612S144	1812P144	1812S144	1912P144	1912S144
		Custom	1612PXXXX	1612SXXXX	1812PXXXX	1812SXXXX	1912PXXXX	1912SXXXX

XXXX – Indicates "overall length / lead length" in inches.  
For mechanical, electrical and wiring sequence see pages 12 & 13.





Receptacle Male 12 Inch Leads	Receptacle Female 12 Inch Leads	Straight Male /Male Double Ended	Straight Female /Female Double Ended	Straight Male /Female Double Ended	Extension Set Male/Female Double Ended	Extension Set Female/Male Double Ended
179P12	179S12	569P9P36	569S9S36	569P9S36	519P9S35	519S9P36
179PXXX	179SXXX	569P9P72	569S9S72	569P9S72	519P9S72	519S9P72
		569P9P144	569S9S144	569P9S144	519P9S144	519S9P144
		569P9PXXXX	569S9SXXXX	569P9SXXXX	519P9SXXXX	519S9PXXXX
1710P12	1710S12	5610P10P36	5610S10S36	5610P10S36	5110P10S35	5110S10P36
1710PXXX	1710SXXX	5610P10P72	5610S10S72	5610P10S72	5110P10S72	5110S10P72
		5610P10P144	5610S10S144	5610P10S144	5110P10S144	5110S10P144
		5610P10PXXXX	5610S10SXXXX	5610P10SXXXX	5110P10SXXXX	5110S10PXXXX
1712P12	1712S12	5612P12P36	5612S12S36	5612P12S36	5112P12S36	5112S12P36
1712PXXX	1712SXXX	5612P12P72	5612S12S72	5612P12S72	5112P12S72	5112S12P72
		5612P12P144	5612S12S144	5612P12S144	5112P12S144	5112S12P144
		5612P12PXXXX	5612S12SXXXX	5612P12SXXXX	5112P12SXXXX	5112S12PXXXX

XXXX – Indicates “overall length / lead length” in inches.  
 For mechanical, electrical and wiring sequence see pages 12 & 13.



# SENSOR-LINK MINI-MIZER®

## MOLDED CONNECTOR ASSEMBLIES

### STANDARD MINI-MIZER WIRING SEQUENCE

Panel Mounts and Cable Assemblies Conductor  
Color Code per Contact Position:

#### INDUSTRIAL "A & C" Size

##### 2 CONTACTS

1. WHT
2. BLK



##### 3 CONTACTS

1. GRN
2. BLK
3. WHT



##### 4 CONTACTS

1. BLK
2. WHT
3. RED
4. GRN



##### 5 CONTACTS

1. WHT
2. RED
3. GRN
4. ORG
5. BLK



##### 6 CONTACTS

1. WHT
2. RED
3. GRN
4. ORG
5. BLK
6. BLU



##### 9 CONTACTS

1. ORG
2. BLU
3. RED/BLK
4. GRN/BLK
5. WHT
6. RED
7. GRN
8. WHT/BLK
9. BLK



##### 10 CONTACTS

1. ORG
2. BLU
3. WHT/BLK
4. RED/BLK
5. GRN/BLK
6. ORG/BLK
7. RED
8. GRN
9. BLK
10. WHT



##### 12 CONTACTS

1. ORG
2. BLU
3. WHT/BLK
4. RED/BLK
5. GRN/BLK
6. ORG/BLK
7. BLU/BLK
8. BLK/WHT
9. GRN
10. RED
11. WHT
12. BLK



#### AUTOMOTIVE "A" Size

##### 3 CONTACTS

1. GRN
2. RED 2
3. RED 3



##### 4 CONTACTS

1. RED 1
2. RED 2
3. RED 3
4. GRN



##### 5 CONTACTS

1. RED 1
2. RED 2
3. GRN
4. RED 4
5. RED 5



For Automotive Color Code Insert  
"A" 164PA36

#### INTERNATIONAL "A" Size

##### 2 CONTACTS

1. BRN
2. BLU



##### 3 CONTACTS

1. BLK
2. BRN
3. BLU



##### 3 CONTACTS \*

1. GRN/YEL
2. BRN
3. BLU



##### 4 CONTACTS

1. BLK
2. BLU
3. BRN
4. WHT



##### 5 CONTACTS

1. BLK
2. BLU
3. GRN/YEL
4. BRN
5. WHT



\* For International Color Code  
Insert "I" 164PI36

\* For Second International Color  
Code Use "IA" 164PIA36

## SENSOR LINK PRODUCT LINE MINI-MIZER® SPECIFICATIONS

### STANDARD PANEL MOUNTS:

- 16 AWG, 105C, 600V, PVC Hook-up Wire
- EPTR "Santoprene" Insert
- Lead Length 12 In.
- Epoxy Filled

### STANDARD CABLE ASSEMBLIES:

- 16 AWG, PVC Yellow Jacketed Cable
- Polyurethane Insert
- Polyurethane (Straight) and PVC (90° Right Angle) Overmold
- Length 3, 6 and 12 Ft.
  - Options*
  - 16 AWG, Polyurethane Yellow Jacketed Cable  
For Polyurethane Cable add suffix "U"
  - 16 AWG, PVC & Polyurethane Yellow Jacketed  
Shielded Cable  
For Shielded Cable add suffix "S"

- Lengths other than standard
- DeviceNet Gray
  - Add suffix "D1": Thin
  - Add suffix "D2": Thick

### Y SPLITTER ASSEMBLIES:

- 18 AWG, Polyurethane Yellow Jacketed Cable
- Polyurethane Insert
- Polyurethane Overmold

### TRI CONNECTOR:

- 18 AWG Hook-up Wires
- Polyurethane Insert
- Polyurethane Overmold
  - Options*
  - DeviceNet Gray
  - Add suffix "D1": Thin
  - Add suffix "D2": Thick

### DUAL CONNECTOR WITH CABLE:

- 18 AWG, Polyurethane Yellow Jacketed Cable
- Polyurethane Insert
- Polyurethane Overmold

### TERMINATOR:

- Resistor 1/4 Watt 121 Ohm 1%
- Polyurethane Insert
- Polyurethane Overmold

## SENSOR LINK PRODUCT LINE MINI-MIZER<sup>®</sup> SPECIFICATIONS

### ELECTRICAL RATING:

**VOLTAGE:** 600V

### CABLE ASSEMBLIES:

**COUPLING NUT:** Anodized Aluminum (Optional Nylon and Stainless Steel) Consult Factory

**CONTACTS:** Copper Alloy, Gold-plated

**INSERT:** Polyurethane

**MOLDED HEADS:** PVC or PUR per Cable Jacket Material

**CABLE:** 16 AWG: PVC Insulated, Fine Stranded Copper Conductors, Yellow Oil Resistant PVC Jacketed  
600V, STO, 105°C.  
18 AWG, 300V, 105°C for Y-splitter Only  
UL Recognized, CSA Certified

### PANEL MOUNT ASSEMBLIES:

**SHELLS:** Anodized Aluminum (Optional Nylon and Stainless Steel) Consult Factory

**CONTACTS:** Copper Alloy, Gold-plated

**INSERTS:** Ethylene Propylene Thermoplastic Rubber  
"Santoprene"

**WIRE:** 16 AWG PVC Insulated, 600V  
UL Recognized, CSA Certified

### ENVIRONMENTAL:

**PROTECTION:** NEMA 6P, IP67 & IP68

**OPERATING AMBIENT:** -20° to 80°C

### CERTIFICATIONS:

**UL:** UL Recognized, File No. E150822

**CSA:** CSA Certified, FILE No. 181200

### EMI/RFIELDING:

Meets or Exceeds IEC Directives:

IEC 1000-4-2 ESD, 5KV to 15KV in 2.5KV Steps

IEC 1000-4-3 RFI Immunity, 10V/m

IEC 1000-4-4 Fast Transient, 2K

IEC 1000-4-5 Surge, DC Immunity, 3.1KV

EN50141 Induced RF Immunity, 10V/m

