

# M16 CONNECTORS

## CIRCULAR CONNECTORS AND TWINTUS

The M16 connector is a favorite in the industry due to the capabilities and performance that is offered all within a compact housing. This connector is available in both signal and power as well as a TWINTUS version. EMI ready options! The M16 connector is ideal for small drives but is very diverse in its application potential.

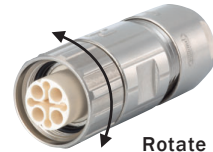
Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy, Die Cast
Housing surface	Nickel plated, Other surface upon request
Inserts	Thermoplastic Polyamide PA 6 (Nylon 6/6), PBT Fire protection class V-0
Contacts	Brass alloy
Contact surface at point of contact	Nickel and gold plated (0.25 µm)
Minimum mating cycles	> 1000 (Sealcon to Sealcon connector)
Seals / O-Rings	Buna-N (Black) / Optional FKM (Green)
Temperature range	-40°F - 257°F (-40°C - 125°C)
Type of contacts	Crimp, dip-solder (PCB) (for printed circuit boards)
Protection	IP 67 / IP 69K per EN 60 529 (connected), NEMA 4x
Cable diameter range	.08 - .43" (2 - 11 mm)



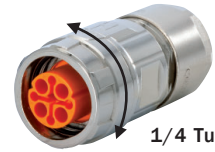
### CONNECTION SYSTEM TYPES

THREADED

TWILOCK



Rotate Tight



1/4 Turn

### Components Needed For A Complete M16 Signal Connector:

- HOUSING (pages 20 - 23)
- INSERT (pages 24 - 26)
- CONTACTS (if crimp contact insert is selected) (page 26)

### Electrical Data

Number of positions	3 (3 x 1 mm)	3 (3 x 2 mm)	4 + 3 + PE / 320 V		4 + 3 + PE / 600 V		6 + PE
Number of contacts	3	3	4	4	4	4	7
Contact-Ø [mm]	1	2	0.8	1.6	0.8	1.25	1.25
[mm <sup>2</sup> ] (AWG)	0.14 - 1 (25 - 17)	0.5 - 2.5 (20 - 14)	0.08 - 0.34 (28 - 22)	0.34 - 1.5 (22 - 16)	0.08 - 0.34 (28 - 22)	0.5 - 1.5 (20 - 16)	0.5 - 1.5 (20 - 16)
Nominal current [A]	8	20	5	25	5	16	16
Nominal voltage [V~] degree of protection 3	400	400	160	320	300	630	600
Test voltage (Breakdown voltage) [V~]	2500	2500	1500	2500	1500	2500	2500
Insulation resistance [MΩ]	>10 <sup>10</sup>	>10 <sup>10</sup>	>10 <sup>10</sup>		>10 <sup>10</sup>		>10 <sup>10</sup>
Max. contact resistance [mΩ]	3	3	3	3	3	3	3

### Electrical Data

Number of positions	4 + 3 + PE / 320 V (HC)		4 + 4 (HC)		10	18	12 + 3	
Number of contacts	4	4	4	4	10	18	12	3
Contact-Ø [mm]	0.8	1.6	0.8	1.25	1	0.8	0.8	1.25
[mm <sup>2</sup> ] (AWG)	0.08 - 0.34 (28 - 22)	2.5 (14)	0.08 - 0.34 (28 - 22)	0.5 - 1.5 (20 - 16)	.14 - 0.75 (26 - 18)	0.08 - 0.34 (20 - 22)	0.08 - 0.34 (28 - 20)	0.5 - 1.5 (20 - 16)
Nominal current [A]	5	25	5	16	8	3	3	10
Nominal voltage [V~] degree of protection 3	48	320	300	630	160	24	24	60
Test voltage (Breakdown voltage) [V~]	1500	1500	1500	2500	1500	1500	1500	2500
Insulation resistance [MΩ]	>10 <sup>10</sup>		>10 <sup>10</sup>		>10 <sup>10</sup>	>10 <sup>10</sup>	>10 <sup>10</sup>	
Max. contact resistance [mΩ]	3	3	3	3	3	3	3	3

SEE TECHNICAL INFORMATION ON PAGE 80

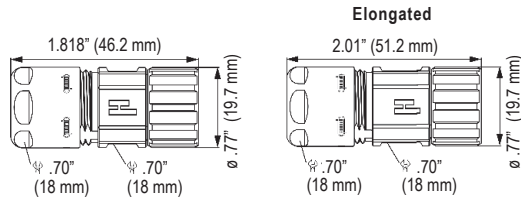


\*ASSEMBLY INSTRUCTIONS CAN BE FOUND AT [WWW.SEALCONUSA.COM](http://WWW.SEALCONUSA.COM) OR BY CALLING US AT 1-800-456-9012

# M16 CONNECTORS

## HOUSINGS

### M16 Straight Connector, EMI, Female Thread / Elongated\*

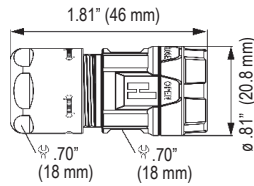


Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.810.300.000
5 - 9 mm (.20 - .35")	S7.810.400.000
8 - 11 mm (.31 - .43")	S7.810.500.000

**\*Elongated**

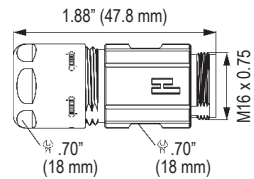
3 - 6 mm (.11 - .23")	S7.811.300.000
5 - 9 mm (.20 - .35")	S7.811.400.000
8 - 11 mm (.31 - .43")	S7.811.500.000

### M16 Straight Connector, EMI, Female Thread, TWILOCK - Quick Connect



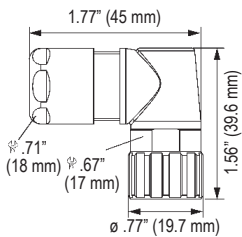
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.816.300.000
5 - 9 mm (.20 - .35")	S7.816.400.000
8 - 11 mm (.31 - .43")	S7.816.500.000

### M16 Straight Connector, EMI, Male Thread



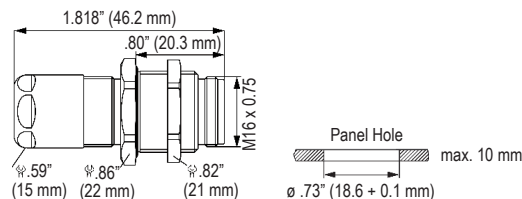
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	⊗ S7.820.300.000
5 - 9 mm (.20 - .35")	⊗ S7.820.400.000
8 - 11 mm (.31 - .43")	⊗ S7.820.500.000

### M16 Right Angle Connector with Positioning, EMI, Female Thread



Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.831.300.000
5 - 9 mm (.20 - .35")	S7.831.400.000
8 - 11 mm (.31 - .43")	S7.831.500.000

### M16 Panel Connector with Strain Relief, EMI, Single Hole, Male Thread



Cable-Ø	Part Number
<b>Rear Mounting, Single Hole</b>	
2 - 7 mm (.08 - .27")	⊗ S7.852.300.000
5 - 9 mm (.20 - .35")	⊗ S7.852.400.000

Including Hex Locking Nut PG11

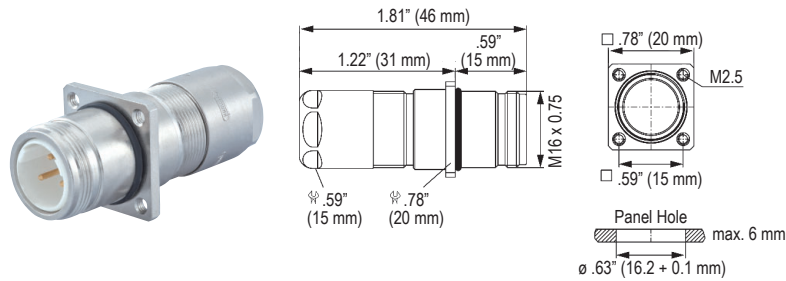
⊗ MATES WITH TWILOCK SYSTEM

⊗ DOES NOT MATE WITH TWILOCK SYSTEM

# M16 CONNECTORS

## HOUSINGS

### M16 Panel Connector with Strain Relief, EMI, Male Thread, Flange

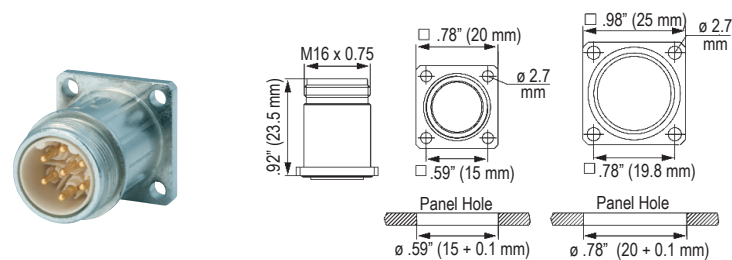


Cable-Ø

Part Number

Rear Mounting, 4 x Threaded M2.5, Flange 20 x 20 mm	
2 - 7 mm (.08 - .27").....	☉ S7.847.300.000
5 - 9 mm (.20 - .35").....	☉ S7.847.400.000

### M16 Panel Connector, Male Thread, Flange



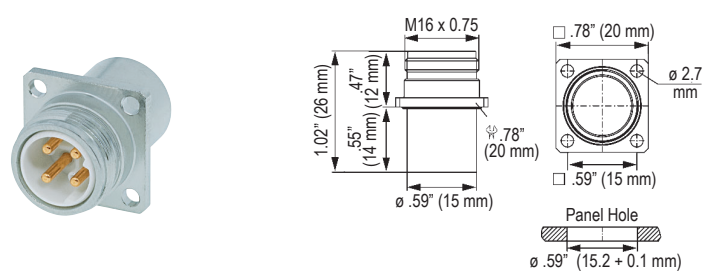
Type

Part Number

Front Mounting, 4 Holes x Ø 2.7 mm, Flange	
Flange 20 x 20 mm.....	☉ S7.840.000.000
Flange 25 x 25 mm.....	☉ S7.840.100.000

Optional: Flat gasket....STAD1-7P2510

### M16 Panel Connector, Short Version, Male Thread, Flange

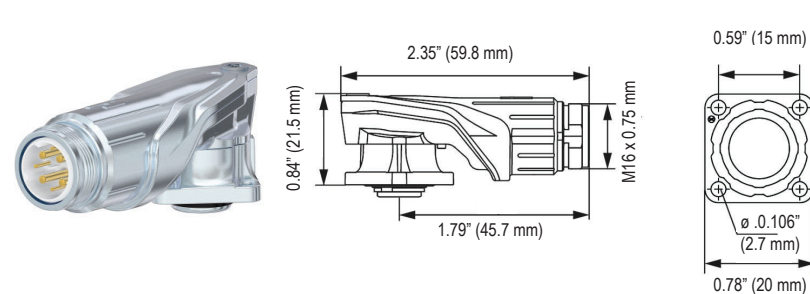


Type

Part Number

Front Mounting, Short version, Flange 20 x 20 mm	
4 x Holes Ø 2.7 mm.....	☉ S7.840.200.000

### M16 Right Angle Panel Connector, Male Thread, Rotatable 315°

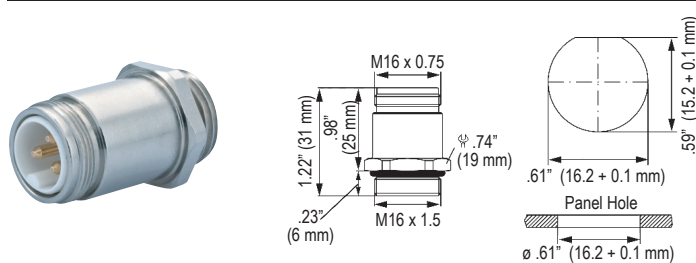


Type

Part Number

315° Rotatable, 4 Holes x Ø 2.7 mm, Flange	
Flange 20 x 20 mm.....	☉ S7.843.200.000
Flange 20 x 20 mm.....	☉ S7.843.200.010
Flange 25 x 25 mm.....	☉ S7.843.300.000
Flange 25 x 25 mm.....	☉ S7.843.300.010

### M16 Panel Connector, Single Hole, Male Thread, Flange



Type

Part Number

Front Mounting, Single Hole	
Thread M16 x 1.5.....	☉ S7.842.000.000

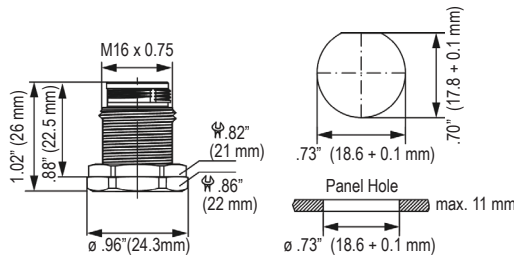
☉ MATES WITH TWILOCK SYSTEM    ☒ DOES NOT MATE WITH TWILOCK SYSTEM

M16 Connectors

# M16 CONNECTORS

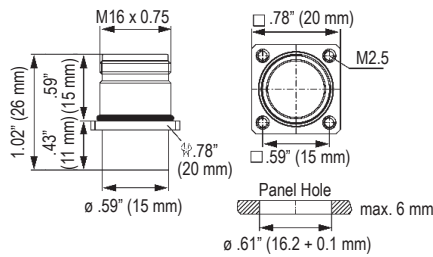
## HOUSINGS

### M16 Panel Connector, Single Hole, Male Thread



Type	Part Number
Rear Mounting, Single Hole Thread M16 x 1.5.....	☉ S7.850.000.000
Including Hex Locking Nut PG11	

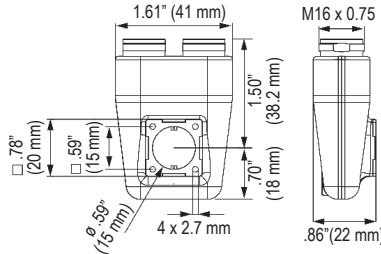
### M16 Panel Connector, Male Thread, Flange



Type	Part Number
Rear Mounting, Flange 20 x 20 mm 4 x Holes Ø 2.5 mm.....	☉ S7.845.000.000

### M16 TWINTUS, Male Thread, Flange/Motor Mount

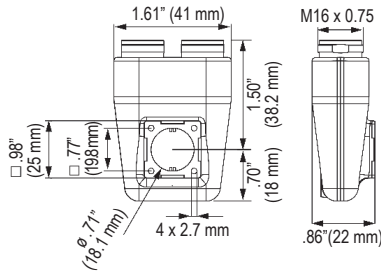
INSERT OPTIONS AVAILABLE ON PAGE 26



Type	Part Number
Motor/Flange Mounting 20x 20 mm Uncoated .....	☉ S7.848.000.000
Surface Nickel Plated .....	☉ S7.848.000.001
Surface Black Conductive.....	☉ S7.848.000.00B

### M16 TWINTUS, Male Thread, Flange/Motor Mount

INSERT OPTIONS AVAILABLE ON PAGE 26



Type	Part Number
Motor/Flange Mounting 25 x 25 mm Uncoated.....	☉ S7.848.100.000
Surface Nickel Plated.....	☉ S7.848.100.001
Surface Black Conductive.....	☉ S7.848.100.00B

☉ MATES WITH TWILOCK SYSTEM

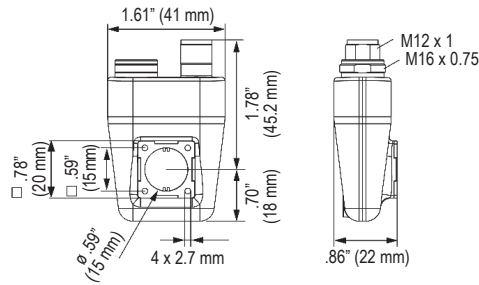
☒ DOES NOT MATE WITH TWILOCK SYSTEM

# M16 CONNECTORS

## HOUSINGS

### M12/M16 TWINTUS, Male Thread, Flange/Motor Mount

INSERT OPTIONS AVAILABLE ON PAGE 26

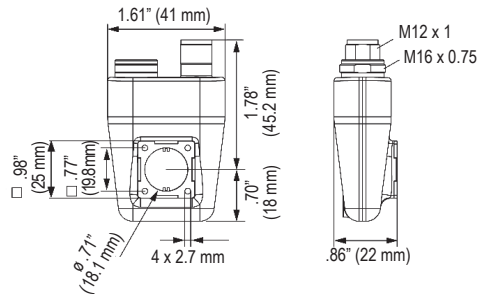


Type	Part Number
Motor/Flange Mounting 20 x 20 mm	
Uncoated .....	⊙ S7.848.200.000
Surface Nickel Plated .....	⊙ S7.848.200.001
Surface Black Conductive .....	⊙ S7.848.200.00B

M12 PORT DOES NOT MATE WITH TWILOCK SYSTEM

### M12/M16 TWINTUS, Male Thread, Flange/Motor Mount

INSERT OPTIONS AVAILABLE ON PAGE 26



Type	Part Number
Motor/Flange Mounting 25 x 25 mm	
Uncoated .....	⊙ S7.848.300.000
Surface Nickel Plated .....	⊙ S7.848.300.001
Surface Black Conductive .....	⊙ S7.848.300.00B

M12 PORT DOES NOT MATE WITH TWILOCK SYSTEM

### M16 Accessories

Plastic Protective Cap for connectors with Male thread..... S7.000.980.161  
with Female thread ..... S7.000.980.162

Brass Protective Cap with chain for connectors with Female thread  
Length 70 mm..... S7.010.9S0.705

Brass Protective Cap for connectors with Female thread ..... S7.010.900.163

Brass Protective Cap with chain for connectors with Male thread  
Length 70 mm..... S7.010.9S0.704

Brass Protective Cap for connectors with Male thread ..... S7.010.900.162

Crimp Tool for manual crimping of machined crimp contacts for signal connectors M16 and M23..... S7.000.900.904

Adapter Flange for Straight Connectors..... S7.010.900.135

Plastic Protective Cap for TWINTUS TWINTUS M16..... S7.000.848.101  
TWINTUS M16 / M12..... S7.000.848.102

Conduit Adapter Nylon DN 10..... S7.010.900.200  
Nylon DN 12..... S7.010.900.202

Screw Tool, adjustable 0.5 - 1.7 Nm ..... S7.010.900.190

Tool Adapter for tightening or loosening knurled nuts for M12 Power / M16 ..... S7.010.900.191

Disassembly Tool for crimp contacts 1.25 mm ..... S7.010.900.151

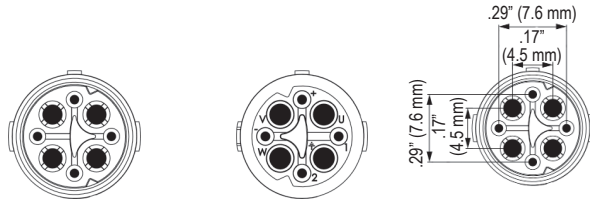
⊙ MATES WITH TWILOCK SYSTEM    DOES NOT MATE WITH TWILOCK SYSTEM



# M16 CONNECTORS

## INSERTS

### Inserts 8-pole 4+3+PE, 600 V



Insert Pin Mating View

Insert Socket Mating View

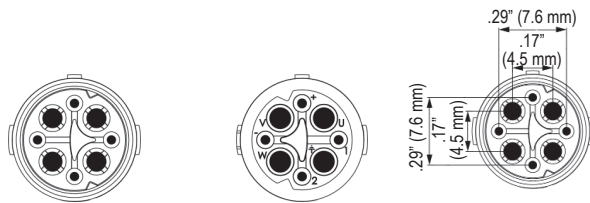
Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.908.101*	S7.003.908.102*

Insert RAL 2003 (DESINA orange)  
without contacts .....S7.053.908.101\* .....S7.053.908.102\*

#### Required Contacts

4 x 0.8 mm .....	S7.010.980.811.....	S7.010.980.814
4 x 1.25 mm .....	S7.010.981.211*.....	S7.010.981.212*

### Inserts 8-pole 4+4 HC



Insert Pin Mating View

Insert Socket Mating View

Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.944.101	S7.003.944.102

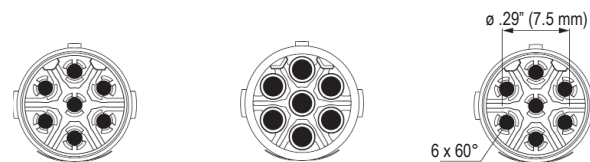
Insert with dip solder contacts  
Length 10 mm .....S7.011.944.127

#### Required Contacts

4 x 0.8 mm .....	S7.010.980.801.....	S7.010.980.802
4 x 1.6 mm .....	S7.011.981.601.....	S7.011.981.602



### Inserts 7-pole 6+PE



Insert Pin Mating View

Insert Socket Mating View

Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.961.101*	S7.003.961.102*
Insert RAL 2003 (DESINA orange) without contacts .....	S7.053.961.101*.....	S7.053.961.102*

#### Required Contacts

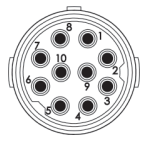
7 x 1.25 mm .....	S7.010.981.211*.....	S7.010.981.212*
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\*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

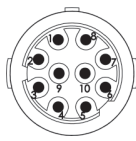
# M16 CONNECTORS

## INSERTS

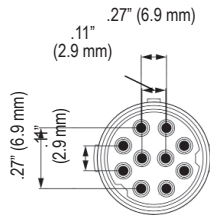
### Inserts 10-pole



Insert Pin Mating View



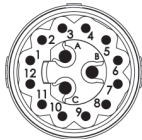
Insert Socket Mating View



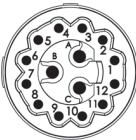
Type	Part Number	
	Pins	Sockets
Insert without contacts.....	S7.003.910.101.....	S7.003.910.102
Insert RAL 2003 (DESINA green) without contacts .....	S7.053.910.101.....	S7.053.910.102
Insert with dip solder contacts Length 10 mm.....	S7.001.910.127.....	S7.001.910.108
Insert with dip solder contacts Length 17 mm.....	S7.001.910.137.....	S7.001.910.118
<b>Required Contacts</b>		
10 x 1 mm .....	S7.010.981.001.....	S7.010.981.002

\*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

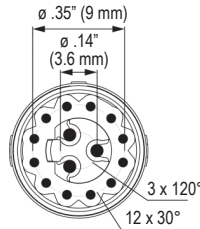
### Inserts 15-pole 12+3



Insert Pin Mating View

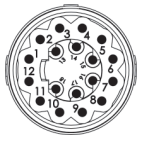


Insert Socket Mating View



Type	Part Number	
	Pins	Sockets
Insert without contacts.....	S7.003.985.101.....	S7.003.985.102
Insert with dip solder contacts Length 10 mm.....	S7.001.985.127 .....	S7.001.985.108
Insert with dip solder contacts Length 17 mm.....	S7.001.985.137 .....	S7.001.985.118
<b>Required Contacts</b>		
12 x 0.8 mm .....	S7.010.980.801.....	S7.010.980.802
3 x 1.25 mm .....	S7.010.981.201.....	S7.010.981.202

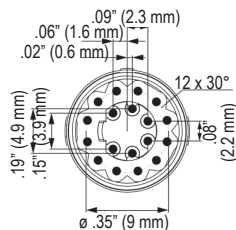
### Inserts 18-pole



Insert Pin Mating View



Insert Socket Mating View



Type	Part Number	
	Pins	Sockets
Insert without contacts.....	S7.003.988.101.....	S7.003.988.102
Insert RAL 2003 (DESINA green) without contacts .....	S7.053.988.101.....	S7.053.988.102
Insert with dip solder contacts Length 10 mm.....	S7.001.988.127.....	S7.001.988.108
Insert with dip solder contacts Length 17 mm.....	S7.001.988.137.....	S7.001.988.118
<b>Required Contacts</b>		
18 x 0.8 mm .....	S7.010.980.801 .....	S7.010.980.802

\*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

# M16 CONNECTORS

## INSERTS

### Inserts M12 for TWINTUS M16 / M12 (8-pole)

#### Type

#### Part Number



Insert Pin Mating View

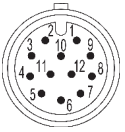
Insert with solder contacts.....SA712-7.001.908.103

Pins

### Inserts M12 for TWINTUS M16 / M12 (12-pole)

#### Type

#### Part Number



Insert Pin Mating View

Insert with solder contacts.....SA712-7.001.912.103

Pins

		Crimp pin HC 1.6 mm, machined.....2.5 mm <sup>2</sup> (AWG 14).....	S7.011.981.601
		Crimp Socket HC 1.6 mm, machined.....2.5 mm <sup>2</sup> (AWG 14).....	S7.011.981.602
		Crimp Pin 0.8 mm, machined.....0.08 - 0.34 mm <sup>2</sup> (AWG 28 - 22).....	S7.010.980.801
		Crimp Socket 0.8 mm, machined.....0.08 - 0.34 mm <sup>2</sup> (AWG 28 - 22).....	S7.010.980.802
		Crimp Pin 0.8 mm, machined.....0.08 - 0.34 mm <sup>2</sup> (AWG 28 - 22).....	S7.010.980.811
		Crimp Socket 0.8 mm, machined.....0.08 - 0.34 mm <sup>2</sup> (AWG 28 - 22).....	S7.010.980.812
		Crimp Pin 1 mm, machined.....0.08 - 0.75 mm <sup>2</sup> (AWG 28 - 18).....	S7.010.981.001
		Crimp Socket 1 mm, machined .....0.08 - 0.75 mm <sup>2</sup> (AWG 28 - 18).....	S7.010.981.002
		Crimp Pin 1 mm, machined.....0.14 - 1 mm <sup>2</sup> (AWG 26 - 17).....	S7.010.901.001
		Crimp Socket 1 mm, machined.....0.08 - 0.56 mm <sup>2</sup> (AWG 28 - 20).....	S7.010.901.012
		Crimp Socket 1 mm, machined.....0.34 - 1 mm <sup>2</sup> (AWG 22 - 17).....	S7.010.901.002
		Crimp Pin 1.25 mm, machined.....0.5 - 1.5 mm <sup>2</sup> (AWG 20 - 16).....	S7.010.981.201
		Crimp Socket 1.25 mm, machined .....0.5 - 1.5 mm <sup>2</sup> (AWG 20 - 16).....	S7.010.981.202
		Crimp Pin 1.25 mm, machined.....0.34 - 1.5 mm <sup>2</sup> (AWG 20 - 16).....	S7.010.981.211
		Crimp Socket 1.25 mm, machined.....0.34 - 1.5 mm <sup>2</sup> (AWG 20 - 16).....	S7.010.981.212
		Crimp Pin 1.6 mm, machined.....0.34 - 1.5 mm <sup>2</sup> (AWG 22 - 16).....	S7.010.981.601
		Crimp Socket 1.6 mm, machined.....0.34 - 1.5 mm <sup>2</sup> (AWG 22 - 16).....	S7.010.981.602
		Crimp Pin 2 mm, machined.....1.0 - 2.5 mm <sup>2</sup> (AWG 17 - 14).....	S7.010.982.001
		Crimp Socket 2 mm, machined.....1.0 - 2.5 mm <sup>2</sup> (AWG 17 - 14).....	S7.010.982.002