

M16 CONNECTORS

CIRCULAR CONNECTORS AND TWINTUS

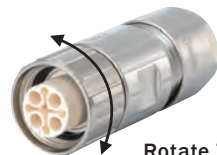
Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy, Die Cast
Housing surface	Nickel plated, Other surface upon request
Inserts	Thermoplastic Polyamide PA 6 (Nylon 6/6), PBT Fire protection class V-0
Contacts	Brass alloy
Contact surface at point of contact	Nickel and gold plated (0.25 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)

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.



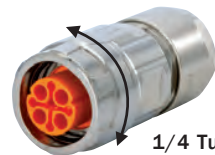
CONNECTION SYSTEM TYPES

THREADED



Rotate Tight

TWILOCK



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	3 (3 x 1 mm)		3 (3 x 2 mm)		4 + 3 + PE / 320 V		4 + 3 + PE / 600 V	
Number of positions	3		3		4		4	
Number of contacts	3		3		4		4	
Contact-Ø [mm]	1		2		0.8		1.25	
[mm²] (AWG)	0.14 – 1 (26 - 17)		0.5 – 2.5 (20 - 14)		0.08 – 0.34 (28 - 22)		0.08 – 0.34 (28 - 22)	
Nominal current [A]	8		20		5		16	
Nominal voltage [V~] degree of protection 3	400		400		160		320	
Test voltage (Breakdown voltage) [V~]	2500		2500		1500		2500	
Insulation resistance [MΩ]	> 10 ¹⁰		> 10 ¹⁰		> 10 ¹⁰		> 10 ¹⁰	
Max. contact resistance [mΩ]	3		3		3		3	

Electrical Data	6 + PE	10	12 + 3		18
Number of positions	7	10	12	3	18
Number of contacts	7	10	12	3	18
Contact-Ø [mm]	1.25	1	0.8	1.25	0.8
[mm²] (AWG)	0.5 – 1.5 (20 - 16)	.14 – 0.75 (26 - 18)	0.08 – 0.34 (28 - 20)	0.5 – 1.5 (20 - 16)	0.08 – 0.34 (28 - 22)
Nominal current [A]	16	8	3	10	3
Nominal voltage [V~] degree of protection 3	600	160	24	60	24
Test voltage (Breakdown voltage) [V~]	2500	1500	1500	2500	1500
Insulation resistance [MΩ]	> 10 ¹⁰	> 10 ⁶	> 10 ¹⁰		> 10 ¹⁰
Max. contact resistance [mΩ]	3	3	3	3	3

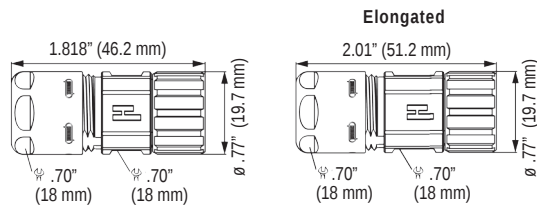
SEE TECHNICAL INFORMATION ON PAGE 80

*ASSEMBLY INSTRUCTIONS CAN BE FOUND AT WWW.SEALCONUSA.COM OR BY CALLING US AT 1-800-456-9012

M16 CONNECTORS

HOUSINGS

M16 Straight Connector, EMI, Female Thread / Elongated *

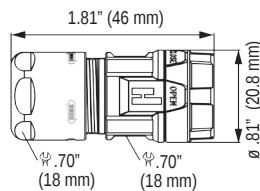


Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.810.300.000
5 - 9 mm (.20 - .35")	S7.810.400.000
8 - 11 mm (.31 - .43")	S7.810.500.000

*Elongated

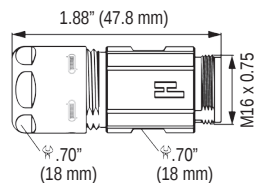
3 - 6 mm (.11 - .23")	S7.811.300.000
5 - 9 mm (.20 - .35")	S7.811.400.000
8 - 11 mm (.31 - .43")	S7.811.500.000

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



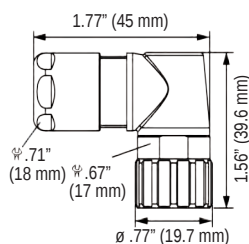
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.816.300.000
5 - 9 mm (.20 - .35")	S7.816.400.000
8 - 11 mm (.31 - .43")	S7.816.500.000

M16 Straight Connector, EMI, Male Thread



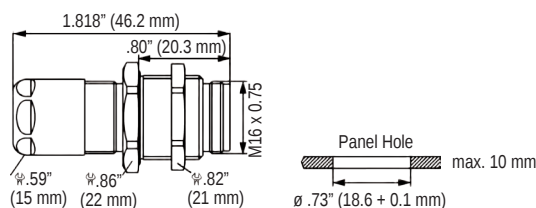
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	⊗ S7.820.300.000
5 - 9 mm (.20 - .35")	⊗ S7.820.400.000
8 - 11 mm (.31 - .43")	⊗ S7.820.500.000

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
Rear Mounting, Single Hole	
2 - 7 mm (.08 - .27")	⊗ S7.852.300.000
5 - 9 mm (.20 - .35")	⊗ S7.852.400.000

Including Hex Locking Nut PG11

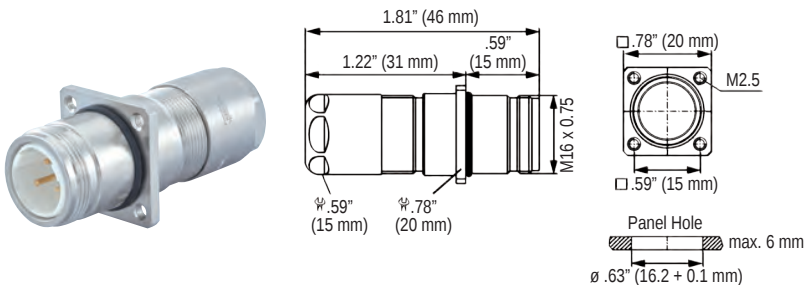
⊗ MATES WITH TWILOCK SYSTEM

⊗ DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

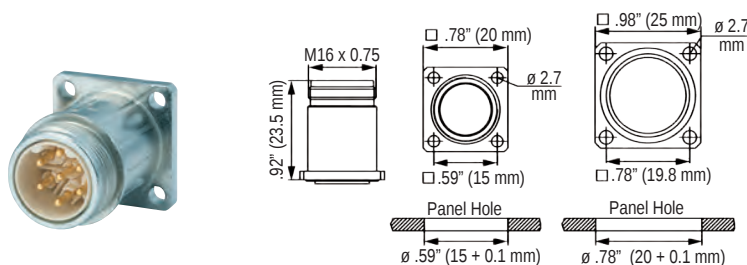
HOUSINGS

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")	Ⓢ7.847.300.000
5 - 9 mm (.20 - .35")	Ⓢ7.847.400.000

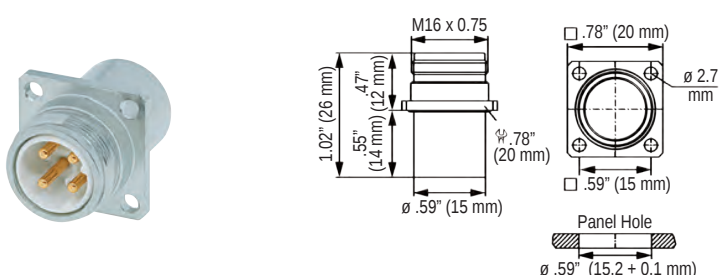
M16 Panel Connector, Male Thread, Flange



Type	Part Number
Front Mounting, 4 Holes x Ø 2.7 mm, Flange	
Flange 20 x 20 mm	Ⓢ7.840.000.000
Flange 25 x 25 mm	Ⓢ7.840.100.000

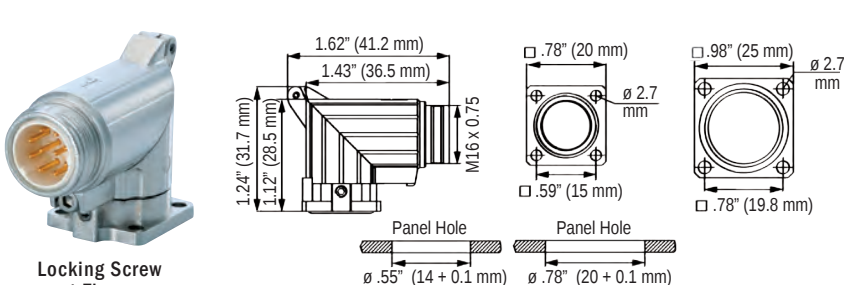
Optional: Flat gasket....STAD1-7P2510

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	Ⓢ7.840.200.000

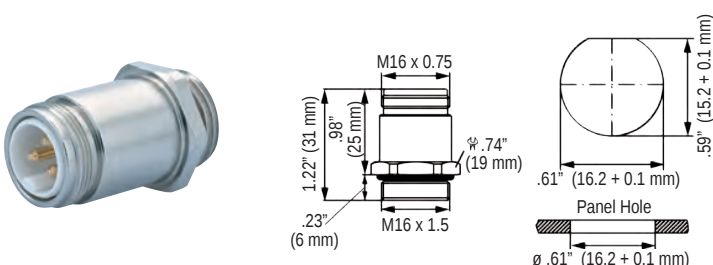
M16 Right Angle Panel Connector, Male Thread, Rotatable 300°



Type	Part Number
300° Rotatable, 4 Holes x Ø 2.7 mm, Flange	
Flange 20 x 20 mm	Ⓢ7.843.000.000
Flange 25 x 25 mm	Ⓢ7.843.100.000

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

M16 Panel Connector, Single Hole, Male Thread, Flange



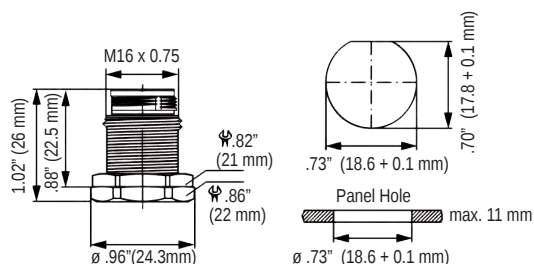
Type	Part Number
Front Mounting, Single Hole	
Thread M16 x 1.5	Ⓢ7.842.000.000

Ⓢ MATES WITH TWILOCK SYSTEM Ⓢ DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

HOUSINGS

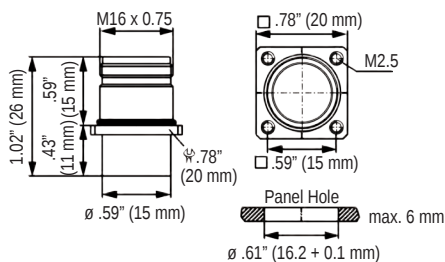
M16 Panel Connector, Single Hole, Male Thread



Type	Part Number
Rear Mounting, Single Hole Thread M16 x 1.5.....	S7.850.000.000

Including Hex Locking Nut PG11

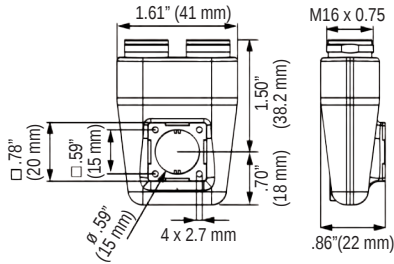
M16 Panel Connector, Male Thread, Flange



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

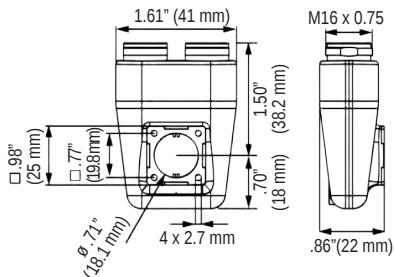
INSERT OPTIONS AVAILABLE ON PAGE 26



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 TWILOK SYSTEM

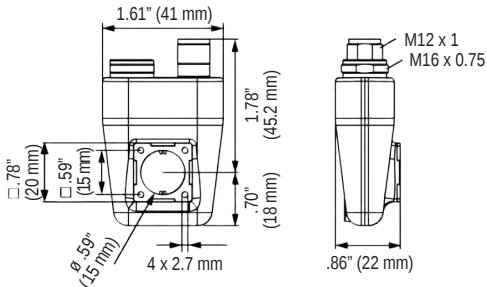
DOES NOT MATE WITH TWILOK SYSTEM

M16 CONNECTORS

HOUSINGS

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

INSERT OPTIONS AVAILABLE ON PAGE 26

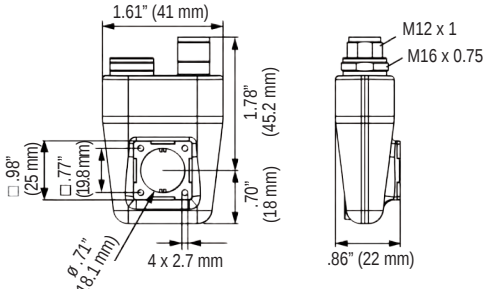


Type	Part Number
Motor/Flange Mounting 20 x 20 mm	
Uncoated	Ⓒ S7.848.200.000
Surface Nickel Plated	Ⓒ S7.848.200.001
Surface Black Conductive	Ⓒ S7.848.200.00B

 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 for connectors
with Female thread  S7.010.900.163



Brass Protective Cap for connectors
with Male thread S7.010.900.162



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



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



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



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



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



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



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



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



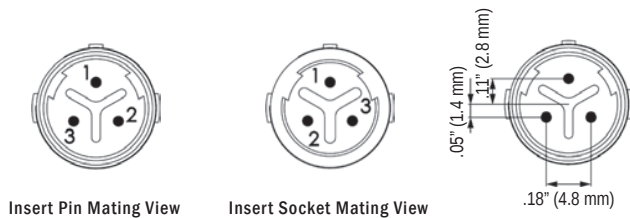
Disassembly Tool for crimp contacts 1.25 mm
..... S7.010.900.151

Ⓒ MATES WITH TWILOCK SYSTEM  DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

INSERTS

Inserts 3-pole (3 x 1 mm)



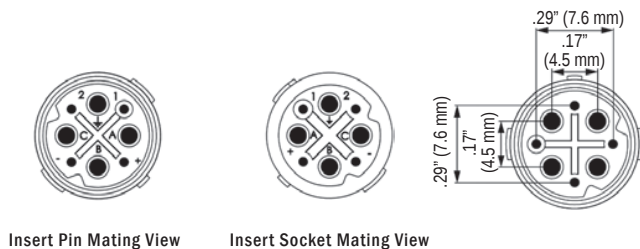
Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.903.101	S7.003.903.102
Insert with dip solder contacts		
Length 10 mm.....	S7.001.903.127	S7.001.903.108
Insert with dip solder contacts		
Length 17 mm.....	S7.001.903.137	S7.001.903.118
Required Contacts		S7.010.901.002
3 x 1 mm	S7.010.901.001	S7.010.901.012

Inserts 3-pole (3 x 2 mm)



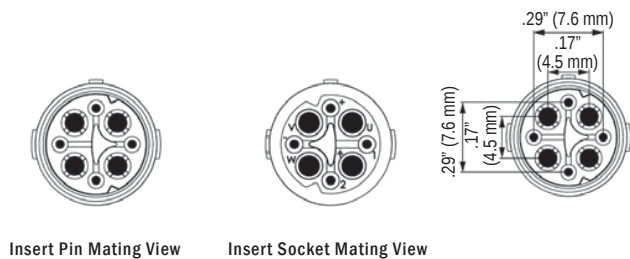
Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.983.101	S7.003.983.102
Insert with dip solder contacts		
Length 10 mm.....	S7.001.983.127	S7.001.983.108
Insert with dip solder contacts		
Length 17 mm.....	S7.001.983.137	S7.001.983.118
Required Contacts		S7.010.982.001
3 x 2 mm	S7.010.982.001	S7.010.982.002

Inserts 8-pole 4+3+PE, 320 V



Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.943.101	S7.003.943.102
Insert RAL 2003 (DESINA orange)		
without contacts	S7.053.943.101	S7.053.943.102
Insert with dip solder contacts		
Length 10 mm.....	S7.001.943.127	S7.001.943.108
Insert with dip solder contacts		
Length 17 mm.....	S7.001.943.137	S7.001.943.118
Required Contacts		S7.010.980.801
4 x 0.8 mm	S7.010.980.801	S7.010.980.802
4 x 1.6 mm	S7.010.981.601	S7.010.981.602

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

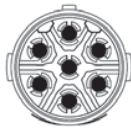
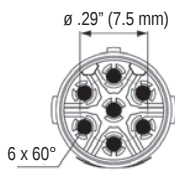


Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.908.101*	S7.003.908.102*
Insert RAL 2003 (DESINA orange)		
without contacts	S7.053.908.101*	S7.053.908.102*
Insert with dip solder contacts - Under Development		
Length 10 mm.....	S7.001.908.127	S7.001.908.108
Insert with dip solder contacts - Under Development		
Length 17 mm.....	S7.001.908.137	S7.001.908.118
Required Contacts		S7.010.980.811
4 x 0.8 mm	S7.010.980.811	S7.010.980.812
4 x 1.25 mm	S7.010.981.211*	S7.010.981.212*

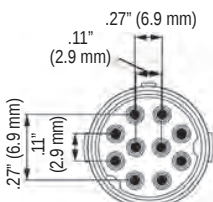
*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

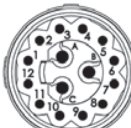
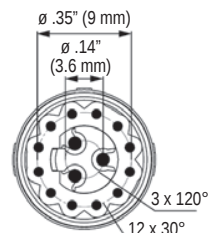
M16 CONNECTORS

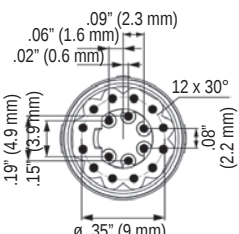
INSERTS

Inserts 7-pole 6+PE		Type	Part Number	Part Number
 Insert Pin Mating View	 Insert Socket Mating View	 ø .29" (7.5 mm) 6 x 60°	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
			Insert with dip solder contacts - Under Development Length 10 mm	S7.001.961.127.....S7.001.961.108
			Insert with dip solder contacts - Under Development Length 17 mm	S7.001.961.137.....S7.001.961.118
		Required Contacts		
		7 x 1.25 mm	S7.010.981.211*S7.010.981.212	

*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

Inserts 10-pole		Type	Part Number	Part Number	
 Insert Pin Mating View	 Insert Socket Mating View	 ø .27" (6.9 mm) ø .11" (2.9 mm) ø .27" (6.9 mm) ø .11" (2.9 mm)	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.....
		Required Contacts			
		10 x 1 mm	S7.010.981.001.....	S7.010.981.002.....	

Inserts 15-pole 12+3		Type	Part Number	Part Number	
			Pins	Sockets	
		 ø .35" (9 mm) ø .14" (3.6 mm) 3 x 120° 12 x 30°	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	
		Required Contacts	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		Type	Part Number	Part Number	
 Insert Pin Mating View	 Insert Socket Mating View		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.....
		Required Contacts			
		18 x 0.8 mm	S7.010.980.801	S7.010.980.802.....	

M12/M16 CONNECTORS

INSERTS, CONTACTS

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

Type

Part Number



Insert Pin Mating View

Pins

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

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

Type

Part Number



Insert Pin Mating View

Pins

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

M12/M16 Contacts

Type

Crimp Range

Part Number



Crimp Pin 0.8 mm, machined.....0.08 – 0.34 mm² (AWG 28 – 22).....S7.010.980.801



Crimp Socket 0.8 mm, machined.....0.08 – 0.34 mm² (AWG 28 – 22).....S7.010.980.802



Crimp Pin 0.8 mm, machined.....0.08 – 0.34 mm² (AWG 28 – 22).....S7.010.980.811



Crimp Socket 0.8 mm, machined.....0.08 – 0.34 mm² (AWG 28 – 22).....S7.010.980.812



Crimp Pin 1 mm, machined.....0.08 – 0.75 mm² (AWG 28 – 18).....S7.010.981.001



Crimp Socket 1 mm, machined0.08 – 0.75 mm² (AWG 28 – 18).....S7.010.981.002



Crimp Pin 1 mm, machined.....0.14 – 1 mm² (AWG 26 – 17).....S7.010.901.001



Crimp Socket 1 mm, machined.....0.08 – 0.56 mm² (AWG 28 – 20).....S7.010.901.012



Crimp Socket 1 mm, machined.....0.34 – 1 mm² (AWG 22 – 17).....S7.010.901.002



Crimp Pin 1.25 mm, machined.....0.5 – 1.5 mm² (AWG 20 – 16).....S7.010.981.201



Crimp Socket 1.25 mm, machined0.5 – 1.5 mm² (AWG 20 – 16).....S7.010.981.202



Crimp Pin 1.25 mm, machined.....0.34 – 1.5 mm² (AWG 20 – 16).....S7.010.981.211



Crimp Socket 1.25 mm, machined.....0.34 – 1.5 mm² (AWG 20 – 16).....S7.010.981.212



Crimp Pin 1.6 mm, machined.....0.34 – 1.5 mm² (AWG 22 – 16).....S7.010.981.601



Crimp Socket 1.6 mm, machined.....0.34 – 1.5 mm² (AWG 22 – 16).....S7.010.981.602



Crimp Pin 2 mm, machined.....1.0 – 2.5 mm² (AWG 17 – 14).....S7.010.982.001



Crimp Socket 2 mm, machined.....1.0 – 2.5 mm² (AWG 17 – 14).....S7.010.982.002



Crimp Pin 2 mm, machined.....1.0 – 2.5 mm² (AWG 17 – 14).....S7.010.982.001



Crimp Socket 2 mm, machined.....1.0 – 2.5 mm² (AWG 17 – 14).....S7.010.982.002