

M16 CONNECTORS

CIRCULAR CONNECTORS AND TWINTUS

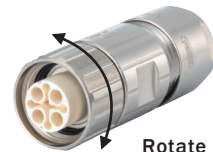
The M16 connector is a favorite in the industry due to the capabilities and performance that is offered all within a compact housing. This connector is available in both signal and power as well as a TWINTUS version. EMI ready options! The M16 connector is ideal for small drives but is very diverse in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



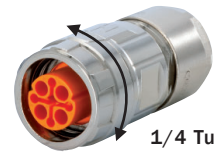
CONNECTION SYSTEM TYPES

THREADED

TWILOCK



Rotate Tight



1/4 Turn

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)

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 ²] (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 ¹⁰	>10 ¹⁰	>10 ¹⁰		>10 ¹⁰		>10 ¹⁰
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 ²] (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 ¹⁰		>10 ¹⁰		>10 ¹⁰	>10 ¹⁰	>10 ¹⁰	
Max. contact resistance [mΩ]	3	3	3	3	3	3	3	3

SEE TECHNICAL INFORMATION ON PAGE 80

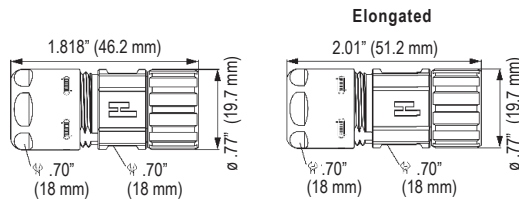


*ASSEMBLY INSTRUCTIONS CAN BE FOUND AT WWW.SEALCONUSA.COM OR BY CALLING US AT 1-800-456-9012

M16 CONNECTORS

HOUSINGS

M16 Straight Connector, EMI, Female Thread / Elongated*

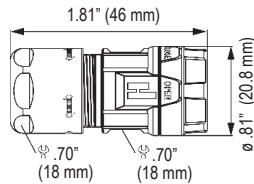


Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.810.300.000
5 - 9 mm (.20 - .35")	S7.810.400.000
8 - 11 mm (.31 - .43")	S7.810.500.000

*Elongated

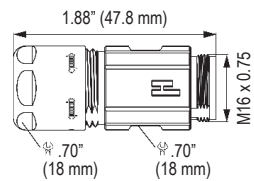
3 - 6 mm (.11 - .23")	S7.811.300.000
5 - 9 mm (.20 - .35")	S7.811.400.000
8 - 11 mm (.31 - .43")	S7.811.500.000

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



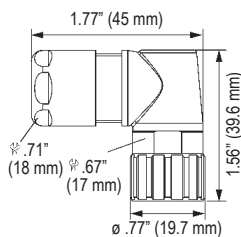
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	S7.816.300.000
5 - 9 mm (.20 - .35")	S7.816.400.000
8 - 11 mm (.31 - .43")	S7.816.500.000

M16 Straight Connector, EMI, Male Thread



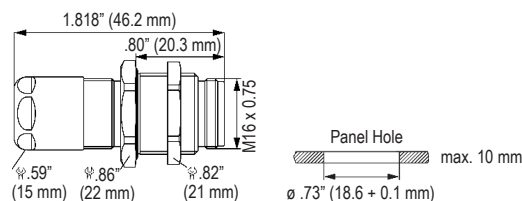
Cable-Ø	Part Number
3 - 6 mm (.11 - .23")	Ⓢ7.820.300.000
5 - 9 mm (.20 - .35")	Ⓢ7.820.400.000
8 - 11 mm (.31 - .43")	Ⓢ7.820.500.000

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")	Ⓢ7.852.300.000
5 - 9 mm (.20 - .35")	Ⓢ7.852.400.000

Including Hex Locking Nut PG11

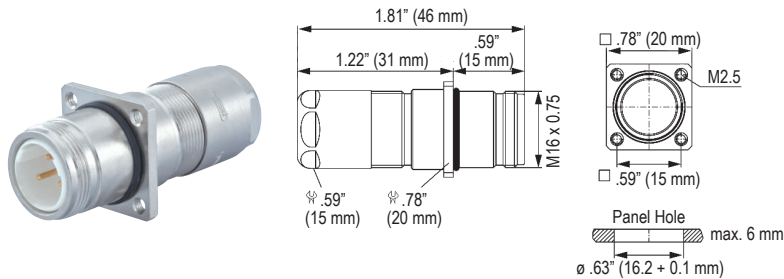
Ⓢ MATES WITH TWILOCK SYSTEM

Ⓢ DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

HOUSINGS

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



Cable-Ø

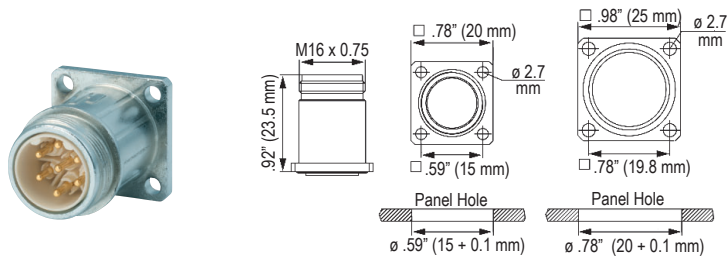
Part Number

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

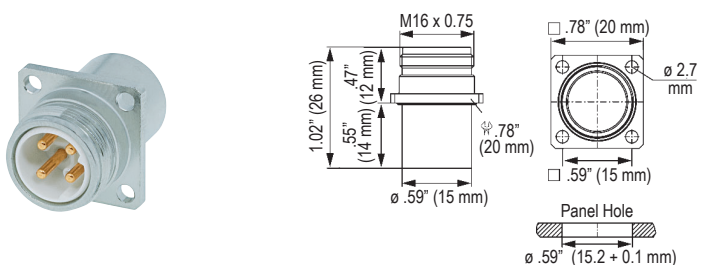
Front Mounting, 4 Holes x Ø 2.7 mm, Flange

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



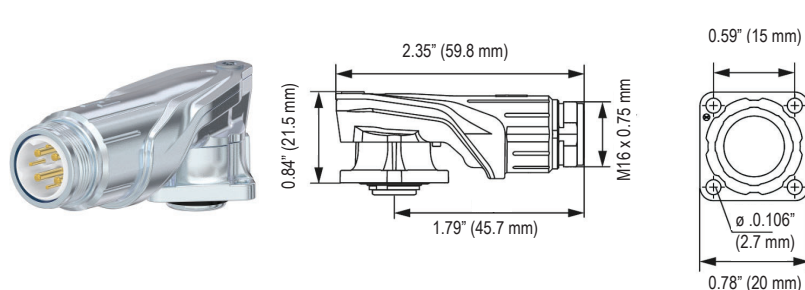
Type

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

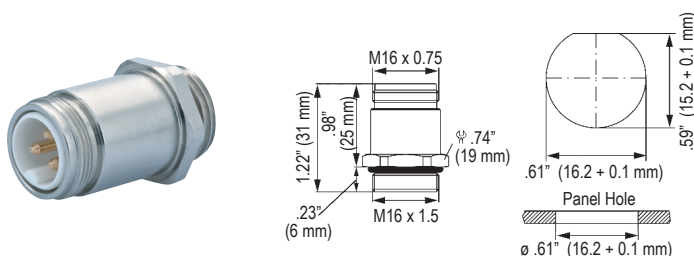
Flange 20 x 20 mm..... S7.843.200.000

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

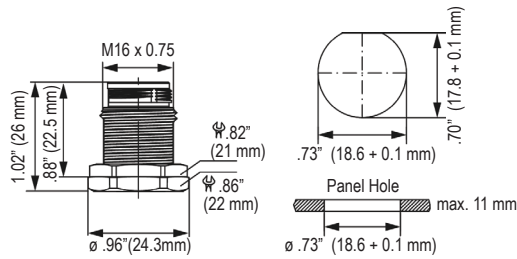
MATES WITH TWILOCK SYSTEM

DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

HOUSINGS

M16 Panel Connector, Single Hole, Male Thread



Type

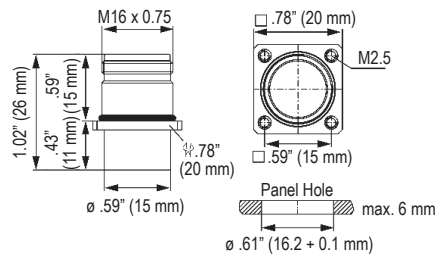
Part Number

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

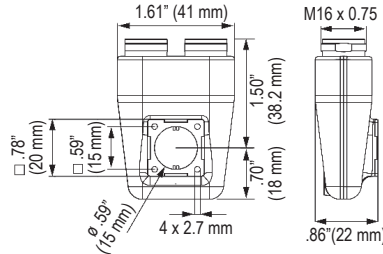
Part Number

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

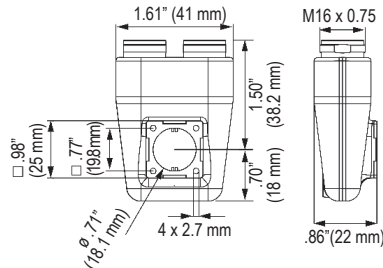
Uncoated S7.848.000.000

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

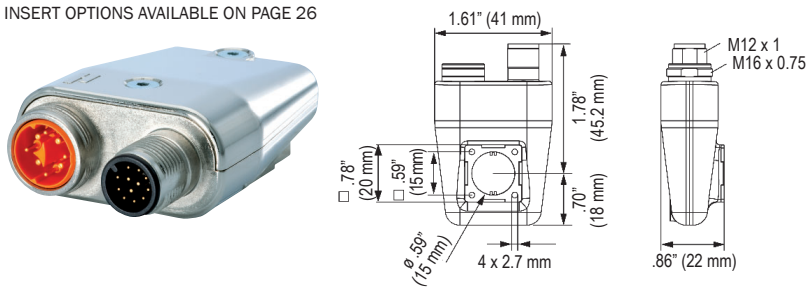
DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

HOUSINGS

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

INSERT OPTIONS AVAILABLE ON PAGE 26



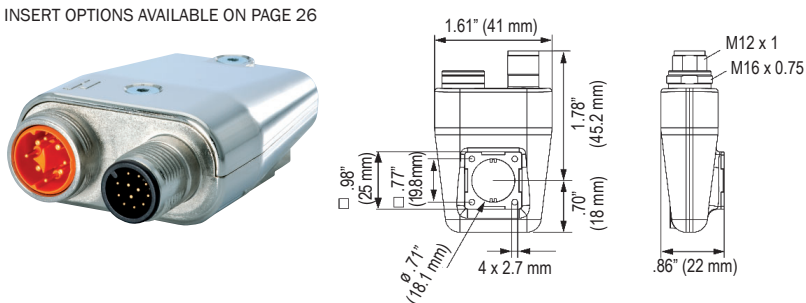
Type	Part Number
Motor/Flange Mounting 20 x 20 mm	
Uncoated	⊙ S7.848.200.000
Surface Nickel Plated	⊙ S7.848.200.001
Surface Black Conductive	⊙ S7.848.200.00B



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 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



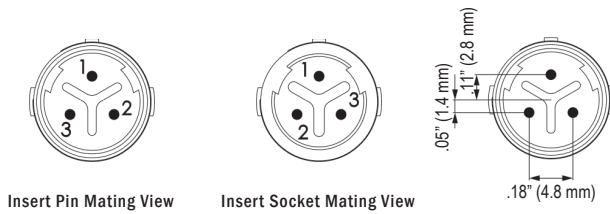
Disassembly Tool for crimp contacts 1.25 mm
..... S7.010.900.151

⊙ MATES WITH TWILOCK SYSTEM  DOES NOT MATE WITH TWILOCK SYSTEM

M16 CONNECTORS

INSERTS

Inserts 3-pole (3 x 1 mm)



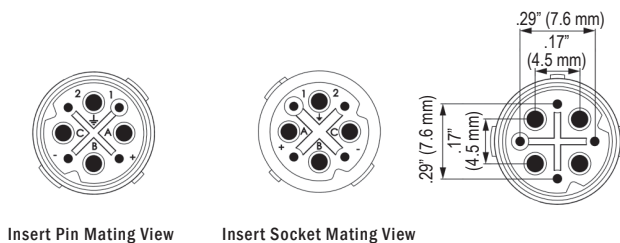
Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.903.101	S7.003.903.102
Insert with dip solder contacts		
Length 10 mm.....	S7.001.903.127	S7.001.903.108
Required Contacts		S7.010.901.002
3 x 1 mm	S7.010.901.001	S7.010.901.012

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		
3 x 2 mm	S7.010.982.001	S7.010.982.002

Inserts 8-pole 4+3+PE, 320 V (HC)



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		
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
Version HC - 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

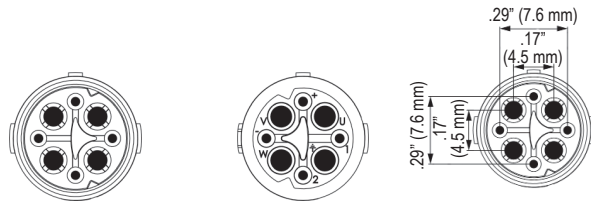


*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

M16 CONNECTORS

INSERTS

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



Insert Pin Mating View

Insert Socket Mating View

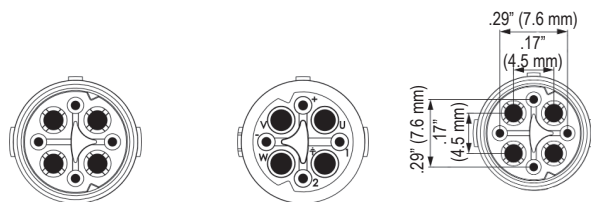
Type	Part Number	Part Number
	Pins	Sockets
Insert without contacts.....	S7.003.908.101*	S7.003.908.102*

Insert RAL 2003 (DESINA orange)
without contactsS7.053.908.101*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

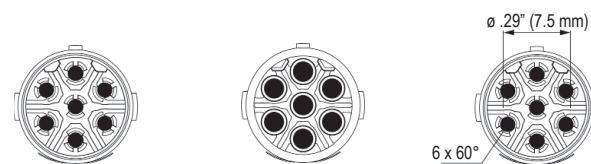
Insert with dip solder contacts
Length 10 mmS7.011.944.127

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 contactsS7.053.961.101*S7.053.961.102*

Required Contacts

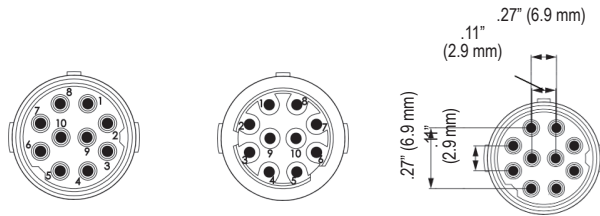
7 x 1.25 mm	S7.010.981.211*.....	S7.010.981.212*
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*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

M16 CONNECTORS

INSERTS

Inserts 10-pole



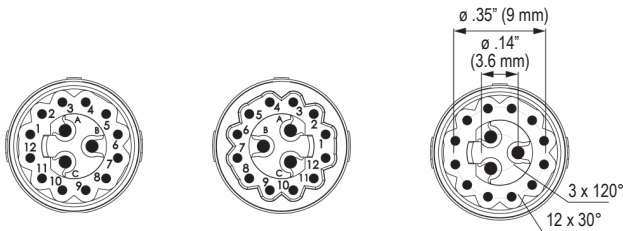
Insert Pin Mating View

Insert Socket Mating View

Type	Part Number	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
Required Contacts 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

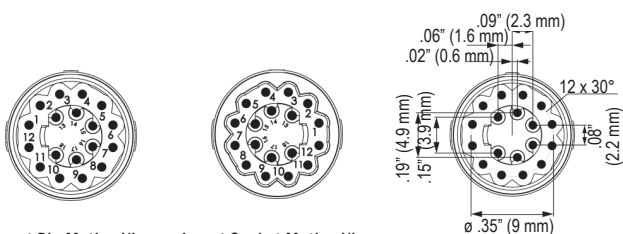


Insert Pin Mating View

Insert Socket Mating View

Type	Part Number	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
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



Insert Pin Mating View

Insert Socket Mating View

Type	Part Number	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
Required Contacts 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

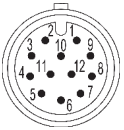
Insert with solder contacts.....SA712-7.001.908.103

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 ² (AWG 14).....S7.011.981.601
		Crimp Socket HC 1.6 mm, machined.....2.5 mm ² (AWG 14).....S7.011.981.602
		Crimp Pin 0.8 mm, machined.....0.08 – 0.34 mm ² (AWG 28 – 22).....S7.010.980.801
		Crimp Socket 0.8 mm, machined.....0.08 – 0.34 mm ² (AWG 28 – 22).....S7.010.980.802
		Crimp Pin 0.8 mm, machined.....0.08 – 0.34 mm ² (AWG 28 – 22).....S7.010.980.811
		Crimp Socket 0.8 mm, machined.....0.08 – 0.34 mm ² (AWG 28 – 22).....S7.010.980.812
		Crimp Pin 1 mm, machined.....0.08 – 0.75 mm ² (AWG 28 – 18).....S7.010.981.001
		Crimp Socket 1 mm, machined0.08 – 0.75 mm ² (AWG 28 – 18).....S7.010.981.002
		Crimp Pin 1 mm, machined.....0.14 – 1 mm ² (AWG 26 – 17).....S7.010.901.001
		Crimp Socket 1 mm, machined.....0.08 – 0.56 mm ² (AWG 28 – 20).....S7.010.901.012
		Crimp Socket 1 mm, machined.....0.34 – 1 mm ² (AWG 22 – 17).....S7.010.901.002
		Crimp Pin 1.25 mm, machined.....0.5 – 1.5 mm ² (AWG 20 – 16).....S7.010.981.201
		Crimp Socket 1.25 mm, machined0.5 – 1.5 mm ² (AWG 20 – 16).....S7.010.981.202
		Crimp Pin 1.25 mm, machined.....0.34 – 1.5 mm ² (AWG 20 – 16).....S7.010.981.211
		Crimp Socket 1.25 mm, machined.....0.34 – 1.5 mm ² (AWG 20 – 16).....S7.010.981.212
		Crimp Pin 1.6 mm, machined.....0.34 – 1.5 mm ² (AWG 22 – 16).....S7.010.981.601
		Crimp Socket 1.6 mm, machined.....0.34 – 1.5 mm ² (AWG 22 – 16).....S7.010.981.602
		Crimp Pin 2 mm, machined.....1.0 – 2.5 mm ² (AWG 17 – 14).....S7.010.982.001
		Crimp Socket 2 mm, machined.....1.0 – 2.5 mm ² (AWG 17 – 14).....S7.010.982.002

MAXIMUM POWER. MINIMAL SPACE.

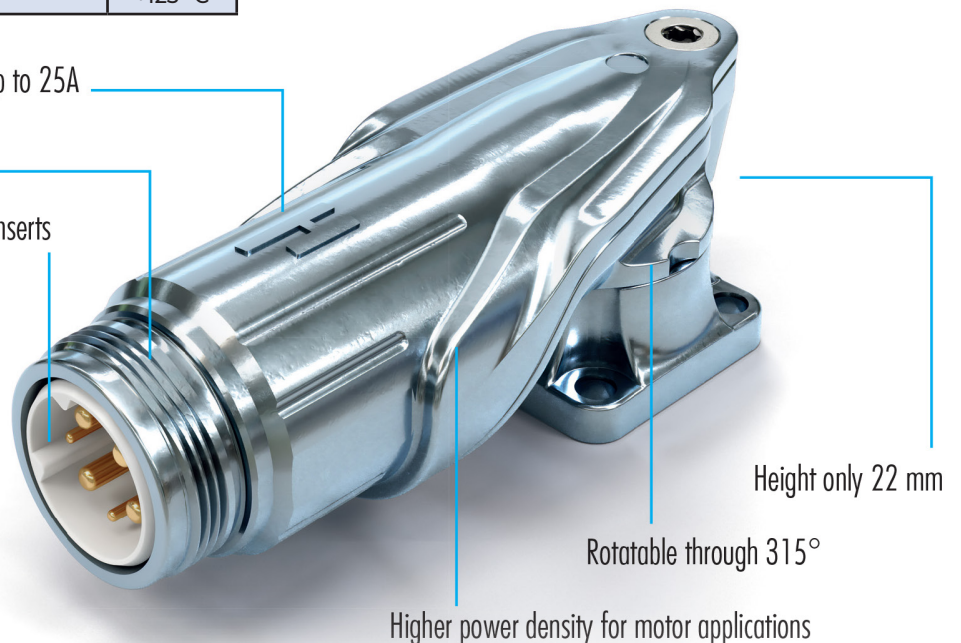
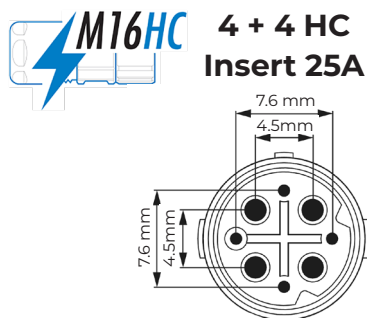
M16 Right Angle Panel Connector

M16 Right Angle Panel Connector | 315 ° Rotation

Electrical Data			
Housing type	Panel angled	Rotatable	315 °
Material housing	Zinc die cast	Flange	20 × 20 mm, 25 × 25 mm
Material housing surface	Blue passivated	Hole distance	15 mm, 19.8 mm
Version	Right angled	Hole diameter	4 × Ø 2,7 mm
External thread plug-in side	M16 × 0,75	Allen key/Torx	T10
Locking type	Screw, TWILOCK	Protection class	IP 67, IP 69 K
Material seals/o-rings	FKM (FPM), NBR	Temperature range	-40 °C to +125 °C

Version	Material housing surface	Hole distance	Item-No
Right angled	blue passivated	15 mm	S7.843.200.000
Right angled	Nickel	15 mm	S7.843.200.010
Right angled	Nickel	19.8 mm	S7.843.300.000
Right angled	blue passivated	19.8 mm	S7.843.300.010

- Saves space in tight installations
- World's Smallest M16 Connector
- High Power, Ultra-Compact Design
- Designed for Modern Automation





Leading Provider of Cable Management Solutions

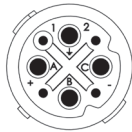
HIGH CURRENT INSERTS

Inserts 8-pole 4+3+PE, 320 V (HC)

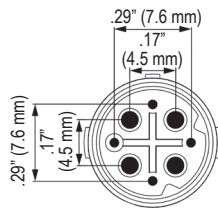
Type	Part Number Pins	Part Number Sockets
Insert without contacts.....	S7.003.943.101	S7.003.943.102
Insert RAL 2003 (DESINA orange) without contacts	S7.053.943.101	S7.053.943.102
Insert with dip solder contacts Length 10 mm.....	S7.001.943.127	S7.001.943.108
Insert with dip solder contacts Length 17 mm.....	S7.001.943.137	S7.001.943.118
Required Contacts		
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
Version HC - 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



Insert Pin Mating View



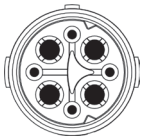
Insert Socket Mating View



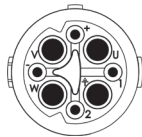
*INSERTION/REMOVAL TOOL # S7.010.900.151 IS REQUIRED

Inserts 8-pole 4+4 HC

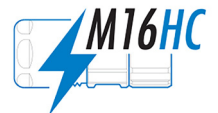
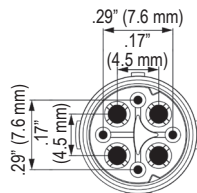
Type	Part Number Pins	Part Number Sockets
Insert without contacts.....	S7.003.944.101	S7.003.944.102
Insert with dip solder contacts Length 10 mm	S7.011.944.127	
Required Contacts		
4 x 0.8 mm	S7.010.980.801	S7.010.980.802
4 x 1.6 mm	S7.011.981.601	S7.011.981.602



Insert Pin Mating View



Insert Socket Mating View



HIGH CURRENT PINS & SOCKETS



Crimp pin HC 1.6 mm, machined.....	2.5 mm ² (AWG 14).....	S7.011.981.601
Crimp Socket HC 1.6 mm, machined.....	2.5 mm ² (AWG 14).....	S7.011.981.602