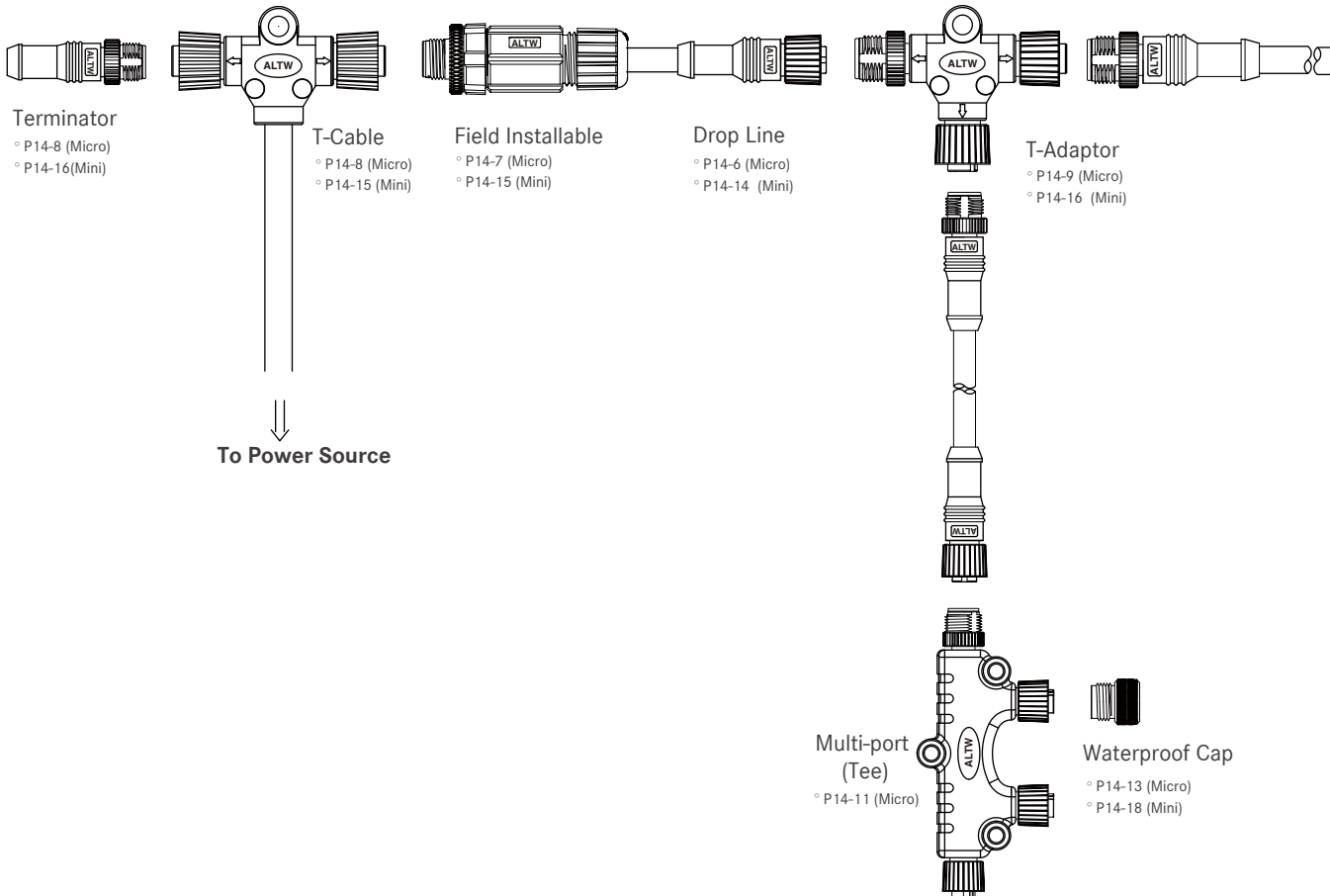




CATALOGUE

NMEA 2000 Connector

Range Overview



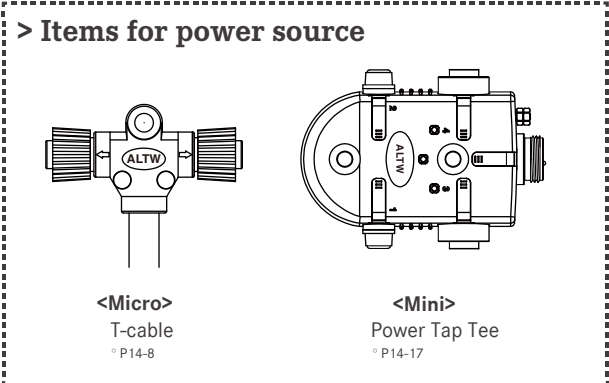
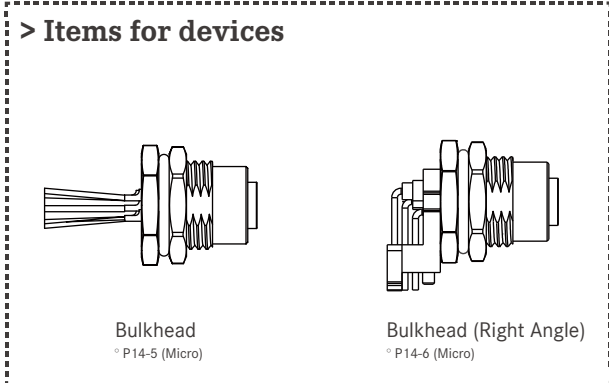
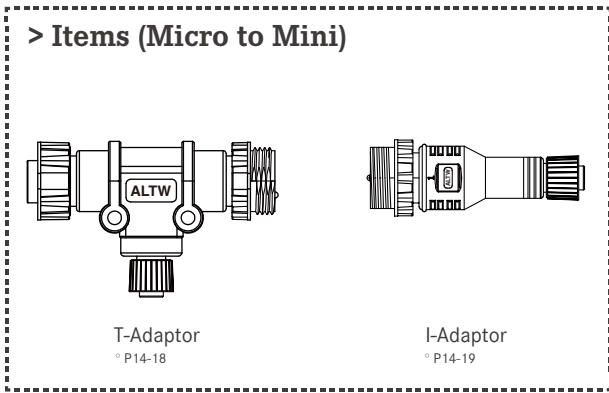
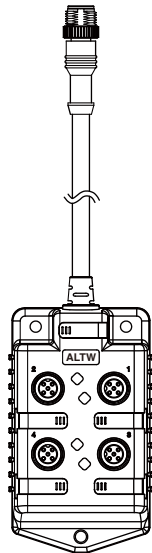
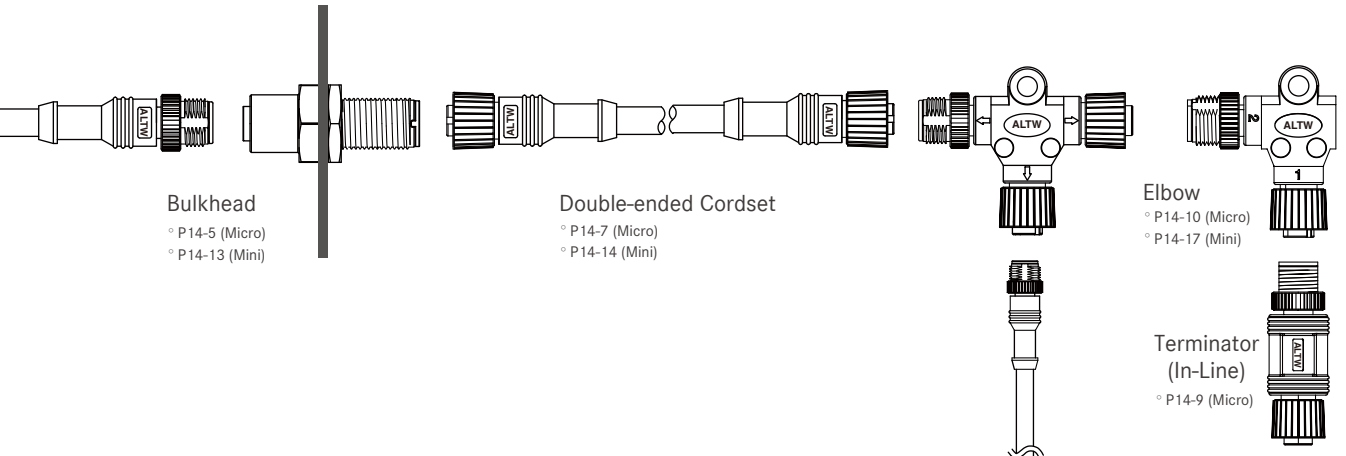
About NMEA 2000

Amphenol LTW Technology expands its coverage targeting the marine industry that features the NMEA 2000 standard.

The NMEA 2000 standard contains the requirements of a serial data communications network to inter-connect marine electronic equipment on

vessels. It is multi-master and self-configuring, and there is no central network controller. Equipment designed to this standard will have the ability to

share data, including commands and status with other compatible equipment over a status with other compatible equipment over a single channel.



* Design and specification are subject to change without notice.

Specification

Identifications	Micro(AWG: 22 AWG, 24 AWG) Mini(AWG: 18 AWG, 15 AWG)
Description	<p>Micro: Bulkhead (With Wire / Double-ended / Right Angle) Cable (Drop Line / Double-ended Cordset / Field Installable / T-Cable) Network Terminator (Single-ended / In-line) Adaptor (T-Adaptor / Elbow) Multi-port Waterproof Cap</p> <p>Mini: Bulkhead (Double-ended) Cable (Drop Line / Double-ended Cordset / Field Installable / T-Cable) Network Terminator (Single-ended) Adaptor (T-Adaptor / Elbow) Power Tap Tee Waterproof Cap</p> <p>Mini to Micro: Adaptor (T-Adaptor / I-Adaptor)</p>
Current Rating / Data	4A, 8A
Material	Contacts: Copper Alloy, Gold Plated Contacts Holder: PA
Waterproof Rating	IP67~68
Temperature Range	Receptacle: -40°C~85°C Overmolded with Cable: -20°C~80°C Field Installable: Nylon+GF: -40°C~105°C PU: -20°C~85°C * Higer working temperature upon request.

Contact Configuration

	Micro-C	Mini-C
	4A	8A
	FF or MM	FF or MM
4Pin		
5Pin		

△ 4A
○ 8A

Number of Contacts:
Ex.2 contacts (02)

Connector (Housing) Gender:
Male(M) or Female(F)

Contact Gender:
Male(M) or Female(F)

More to Choose:

- Solder (S)
- Solder Cup



- Screw In (B)



Cabling Information

Micro

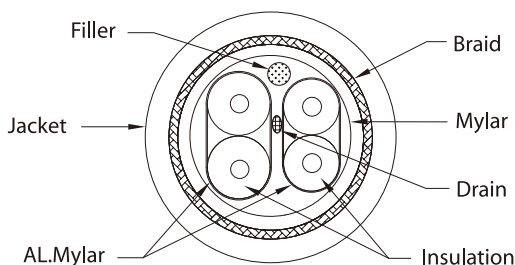
NMEA Approved

(A): (24#* 1P+AL) + (22#* 1P+AL) + Drain + Mylar + Braid

Conforming

(A): (24#* 1P+AL) + (22#* 1P+AL) + Drain + AL + Braid

(B): (22#* 1P+AL) + (18#* 1P+AL) + Drain + AL + Braid



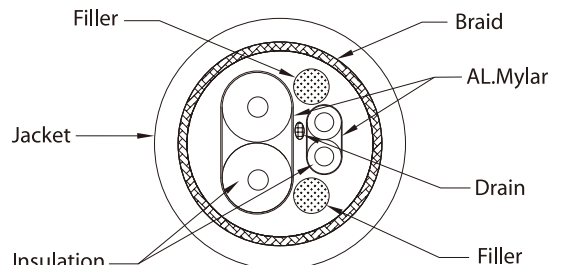
Mini

NMEA Approved

(C): (18#* 1P+AL) + (15#* 1P+AL) + Drain + Braid

Conforming

(C): (18#* 1P+AL) + (16#* 1P+AL) + Drain + AL+Braid



* Design and specification are subject to change without notice.

Find Our Standard Products

Micro > Bulkhead (Double-ended)

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Unmated IP68 	<p>18 (Hexagon) For Panel thickness Max 8.5mm</p>	
Type	Connector	Connector 1 (Female Connector / Female Contacts)
	Connector	Connector 2 (Male Connector / Male Contacts)
None- Certified NMEA 2000 (4A, 60V)	MC-000505-0FM-BS001	
Certified NMEA 2000 (4A, 60V)	UMC-000505-0FM-BS001	

Micro > Bulkhead

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • For device side • Unmated IP68 		
Type	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)
	None- Certified NMEA 2000 (4A, 60V)	MC-05PMMS-SF8001 MC-05PMMS-SH8001

Micro > Bulkhead (Right Angle)

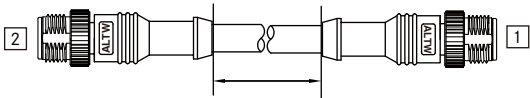
<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • For device side • Unmated IP68 / Mated IP67 	<p>* IP 68 (Unmated)</p>		<p>* IP 67 (Mated)</p>	
	<p>Connector Type</p>	<p>Connector (Male Connector / Male Contacts)</p>	<p>Connector (Female Connector / Female Contacts)</p>	
<p>None- Certified NMEA 2000 (4A, 60V)</p>	<p>12-05PMMR-SF7001 12-05PMMR-SF8001</p>	<p>12-05PFFR-SF7001 12-05PFFR-SF8001</p>		
<p>None- Certified NMEA 2000 (Plastic / 4A, 60V)</p>	<p>12P-05PMMR-SF8001</p>	<p>12P-05PFFR-SF8001</p>		

Micro > Cable > Drop Line

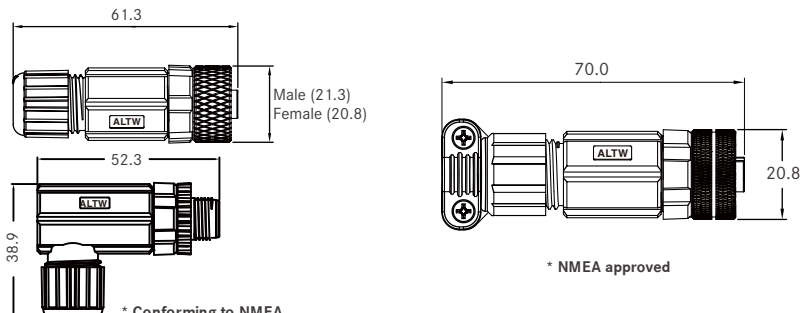
<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • For power tap connection • Mated IP68 			<p>10 Cabling Information NMEA Approved (A): (24#*1P+AL) + (22#*1P+AL) + Drain + Mylar + Braid Conforming (A): (24#*1P+AL) + (22#*1P+AL) + Drain + AL + Braid (B): (22#*1P+AL) + (18#*1P+AL) + Drain + AL + Braid **Available in 1, 2, 5, 10 M.</p>
	<p>Connector Type</p>	<p>Connector (Male Connector / Male Contacts)</p>	
<p>None- Certified NMEA 2000 (4A, 60V)</p>	<p>MC-05BMMM-SL8 10 **</p>	<p>MC-05BFFM-SL8 10 **</p>	
<p>None- Certified NMEA 2000 (Plastic / 4A, 60V)</p>	<p>MCP-05BMMM-SL8 10 **</p>	<p>MCP-05BFFM-SL8 10 **</p>	
<p>Certified NMEA 2000 (4A, 60V)</p>	<p>UMC-05BMMM-SL8 10 **</p>	<p>-</p>	

* Design and specification are subject to change without notice.

Micro > Cable > Double-ended Cordset

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 	 <p>*Available in 1, 2, 5, 10 M</p>		
	*Cable 22+24+B PVC		
Type \ Connector	Connector 1 (Male Connector Male Contacts)	Connector 1 (Female Connector Female Contacts)	Connector 1 (Male Connector Male Contacts)
	Connector 2 (Male Connector Male Contacts)	Connector 2 (Female Connector Female Contacts)	Connector 2 (Female Connector Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	MC-000505-0MM-CS*	MC-000505-OFF-CS*	MC-000505-0MF-CS*
None- Certified NMEA 2000 (Plastic / (4A, 60V)	PC-000505-0MM-CS*	PC-000505-OFF-CS*	PC-000505-0MF-CS*
Certified NMEA 2000 (4A, 60V)	-	-	UMC-000505-0MF-CSA*

Micro > Cable > Field Installable

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Screw-in Contacts • Mated IP68 	 <p>* Conforming to NMEA</p> <p>* NMEA approved</p>	
	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	12-05BMMB-SL7001 12-05BMMB-SR7001 (Ø4.5 ~Ø6.0mm; 18AWG Max.)	12-05BFFB-SL7001 12-05BFFB-SR7001 (Ø4.5 ~Ø6.0mm; 18AWG Max.)
None- Certified NMEA 2000 (Plastic / 4A, 60V)	12P-05BMMB-SL7001 12P-05BMMB-SR7001 (Ø4.5 ~Ø6.0mm; 18AWG Max.)	12P-05BFFB-SL7001 12P-05BFFB-SR7001 (Ø4.5 ~Ø6.0mm; 18AWG Max.)
Certified NMEA 2000 (4A, 60V)	UMC-05BMMB-SL7001 (Ø4.5 ~Ø7.5mm; 18AWG Max.)	UMC-05BFFB-SL7001 (Ø4.5 ~Ø7.5mm; 18AWG Max.)

Micro > Cable > T-Cable

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • For Power Tap Connection • Mated IP68 				
	<p>*Cable 22+18+B PVC *Available in 1, 2, 5, 10 M.</p>			
Type	Connector	Connector 1 (Male Connector Male Contacts)	Connector 1 (Female Connector Female Contacts)	Connector 1 (Female Connector Female Contacts)
	Connector	Connector 2 (Male Connector Male Contacts)	Connector 2 (Female Connector Female Contacts)	Connector 2 (Male Connector Male Contacts)
None- Certified NMEA 2000 (4A, 60V)		MC-050500-MM0-TSB*	MC-050500-FF0-TSB*	MC-050500-FM0-TSB*
None- Certified NMEA 2000 (Plastic) (4A, 60V)		PC-050500-MM0-TSB*	PC-050500-FF0-TSB*	PC-050500-FM0-TSB*
Certified NMEA 2000 (4A, 60V)		-	-	UMC-050500-FM0-TSA*

Micro > Network terminator > Terminator

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • With 120Ω Resistor • Mated IP68 			
	<p>*Design and specification are subject to change without notice.</p>		
Type	Connector	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)		MC-05BMMT-SL8001	MC-05BFFT-SL8001
None- Certified NMEA 2000 (Plastic / 4A, 60V)		MCP-05BMMT-SL8001	MCP-05BFFT-SL8001
Certified NMEA 2000 (4A, 60V)		UMC-05BMMT-SL8001	UMC-05BFFT-SL8001

* Design and specification are subject to change without notice.

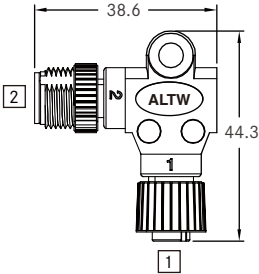
Micro > Network Terminator > Terminator (In-Line)

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • With 120Ω Resistor • Mated IP68 		
	Type	Connector (Male Connector / Male Contacts)
	Connector 1 (Male Connector / Male Contacts)	Connector 2 (Female Connector / Female Contacts)
	Connector 2 (Female Connector / Female Contacts)	Connector 2 (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	MC-000505-0MF-IS001	* Please contact our sales team for more information

Micro > Adaptor > T-Adaptor

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 		
	Type	Connector (Female Connector / Female Contacts)
	Connector 1 (Female Connector / Female Contacts)	Connector 2 (Male Connector / Male Contacts)
	Connector 2 (Male Connector / Male Contacts)	Connector 3 (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	UMC-050505-FMF-TS001	

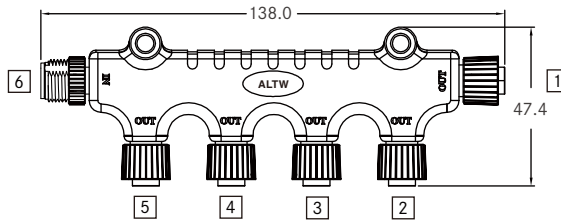
Micro > Adaptor > Elbow

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 	
<p>Type</p>	<p>Connector 1 (Female Connector / Female Contacts)</p>
<p>None- Certified NMEA 2000 (4A, 60V)</p>	<p>Connector 2 (Male Connector / Male Contacts)</p> <p>MC-000505-0FM-ES001</p>

* Design and specification are subject to change without notice.

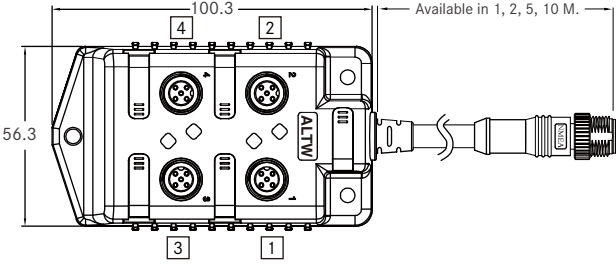
Micro > Adaptor > T-Adaptor

- 5 Contacts
- Screw Thread
- Mated IP68



Type Connector	Connector 1 (Female Connector / Female Contacts)	Connector 1 (Female Connector / Female Contacts)
	Connector 2 (Female Connector / Female Contacts)	Connector 2 (Female Connector / Female Contacts)
	Connector 3 (Female Connector / Female Contacts)	Connector 3 (Female Connector / Female Contacts)
	Connector 4 (Male Connector / Male Contacts)	Connector 4 (Female Connector / Female Contacts)
	-	Connector 5 (Female Connector / Female Contacts)
	-	Connector 6 (Male Connector / Male Contacts)
None- Certified NMEA 2000 (4A, 60V)	S-555500-FFFM00-S001	S-555555-FFFFFM-S001
Certified NMEA 2000 (4A, 60V)	E-555500-FFFM00-S001	E-555555-FFFFFM-S001

Micro > Multi-port > Box

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 	 <p>* Cable 22+18+B PVC ** Cable 22+24+B PVC</p>								
<p>Type</p>	<table border="1"> <tr> <td data-bbox="385 652 614 740">Connector</td> <td data-bbox="614 652 1329 740">Connector 1 (Female Connector / Female Contacts)</td> </tr> <tr> <td data-bbox="385 740 614 829">Connector</td> <td data-bbox="614 740 1329 829">Connector 2 (Female Connector / Female Contacts)</td> </tr> <tr> <td data-bbox="385 829 614 917">Connector</td> <td data-bbox="614 829 1329 917">Connector 3 (Female Connector / Female Contacts)</td> </tr> <tr> <td data-bbox="385 917 614 1001">Connector</td> <td data-bbox="614 917 1329 1001">Connector 4 (Female Connector / Female Contacts)</td> </tr> </table>	Connector	Connector 1 (Female Connector / Female Contacts)	Connector	Connector 2 (Female Connector / Female Contacts)	Connector	Connector 3 (Female Connector / Female Contacts)	Connector	Connector 4 (Female Connector / Female Contacts)
Connector	Connector 1 (Female Connector / Female Contacts)								
Connector	Connector 2 (Female Connector / Female Contacts)								
Connector	Connector 3 (Female Connector / Female Contacts)								
Connector	Connector 4 (Female Connector / Female Contacts)								
<p>None- Certified NMEA 2000 (4A, 30V)</p>	<p>S-555500-FFFF00-SB*</p>								
<p>Certified NMEA 2000 (4A, 30V)</p>	<p>E-555500-FFFF00-SA**</p>								

* Design and specification are subject to change without notice.

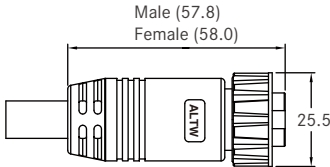
Micro > Cap > Waterproof Cap

<ul style="list-style-type: none"> • Screw Thread • Mated IP68 		<p>* Plastic * Metal</p> <p>4 Choose gender of mating pair : Male(M) / Female(F) 7 Choose plastic(1) or metal(2) items</p>	
Size	Mating Pair	Mating Style	Part Number
Micro	Receptacle	Screw Thread	CAP-WBDMSPB2
	Receptacle and Overmolded with Cable	Screw Thread	CAP-WBD 4 SMA 7

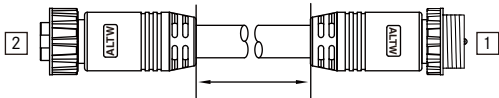
Mini > Bulkhead (Double-ended)

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Unmated IP68 			
Type	Connector	Connector 1 (Female Connector / Female Contacts)	
		Connector 2 (Male Connector / Male Contacts)	
None- Certified NMEA 2000 (8A, 600V)		MN-000505-0FM-BS001	
Certified NMEA 2000 (8A, 600V)		UMN-000505-0FM-BS001	

Mini > Cable > Drop Line

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 			<p>10 Cabling Information NMEA Approved (C): (18#*1P+AL) + (15#*1P+AL) + Drain + Braid Conforming (C): (18#*1P+AL) + (16#*1P+AL) + Drain + AL+Braid **Available in 1, 2, 5, 10 M.</p>
	Connector Type	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)
	None- Certified NMEA 2000 (8A, 30V)	MN-05AMMM-SL8 10 **	MN-05AFFM-SL8 10 **
NMEA Approved (8A, 600V)	UMN-05AMMM-SL8 10 **	-	

Mini > Cable > Double-ended Cordset

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 			<p>*Available in 1, 2, 5, 10 M</p>
	Connector Type	Connector 1 (Male Connector / Male Contacts)	Connector 2 (Female Connector / Female Contacts)
	None- Certified NMEA 2000 (8A, 30V)	MN-000505-0MF-CSC*	
Certified NMEA 2000 (8A, 600V)	UMN-000505-0MF-CSC*		

* Design and specification are subject to change without notice.

Mini > Cable > Field Installable

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Screw-in Contacts • Mated IP68 											
	* Conforming to NMEA	* NMEA approved									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">Connector Type</td> <td style="width: 40%; text-align: center;">Connector (Male Connector / Male Contacts)</td> <td style="width: 40%; text-align: center;">Connector (Female Connector / Female Contacts)</td> </tr> <tr> <td style="text-align: center;">None- Certified NMEA 2000 (8A, 600V)</td> <td style="text-align: center;">MN-05BMMB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)</td> <td style="text-align: center;">MN-05BFFB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)</td> </tr> <tr> <td style="text-align: center;">Certified NMEA 2000 (8A, 600V)</td> <td style="text-align: center;">UMN-05BMMB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)</td> <td style="text-align: center;">UMN-05BFFB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)</td> </tr> </table>	Connector Type	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)	None- Certified NMEA 2000 (8A, 600V)	MN-05BMMB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)	MN-05BFFB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)	Certified NMEA 2000 (8A, 600V)	UMN-05BMMB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)	UMN-05BFFB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)		
Connector Type	Connector (Male Connector / Male Contacts)	Connector (Female Connector / Female Contacts)									
None- Certified NMEA 2000 (8A, 600V)	MN-05BMMB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)	MN-05BFFB-SL7001 (Ø8 ~Ø11mm; 15AWG Max.)									
Certified NMEA 2000 (8A, 600V)	UMN-05BMMB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)	UMN-05BFFB-SL7001 (Ø8 ~Ø12.2mm; 15AWG Max.)									

Mini > Cable > T-Cable

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 						
	<p>* Cable: Refer to P14-4 * Available in 1, 2, 5, 10 M.</p>					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">Connector Type</td> <td style="width: 80%; text-align: center;">Connector 1 (Female Connector / Female Contacts)</td> </tr> <tr> <td></td> <td style="text-align: center;">Connector 2 (Male Connector / Male Contacts)</td> </tr> </table>	Connector Type	Connector 1 (Female Connector / Female Contacts)		Connector 2 (Male Connector / Male Contacts)		
Connector Type	Connector 1 (Female Connector / Female Contacts)					
	Connector 2 (Male Connector / Male Contacts)					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">None- Certified NMEA 2000 (8A, 30V)</td> <td style="width: 80%; text-align: center;">MN-050500-FM0-TSC*</td> </tr> </table>	None- Certified NMEA 2000 (8A, 30V)	MN-050500-FM0-TSC*				
None- Certified NMEA 2000 (8A, 30V)	MN-050500-FM0-TSC*					

▾ Mini > Network Terminator > Terminator

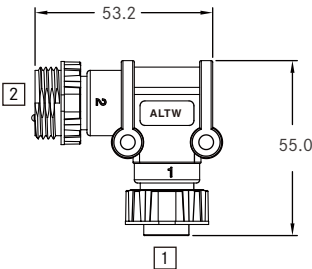
<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • With 120Ω Resistor • Mated IP68 		
	Connector Type	Connector 1 (Male Connector / Male Contacts)
None- Certified NMEA 2000 (8A, 250V)	MNL-05BMMT-SL8001	MNL-05BFFT-SL8001
Certified NMEA 2000 (8A, 250V)	UMN-05AMMT-SL8001	UMN-05AFFT-SL8001

▾ Mini > Adaptor > T-Adaptor

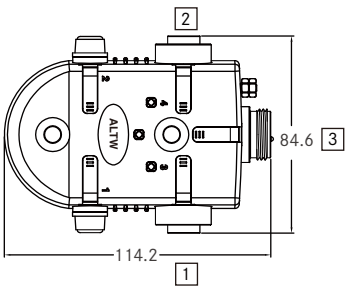
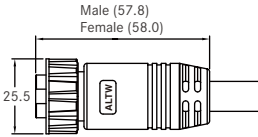
<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 		
	Connector Type	Connector 1 (Female Connector / Female Contacts)
None- Certified NMEA 2000 (8A, 300V)	MN-050505-FMF-TS001	
Certified NMEA 2000 (8A, 300V)	UMN-050505-FMF-TS001	

* Design and specification are subject to change without notice.

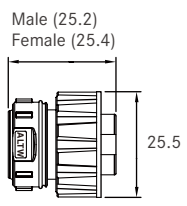
Mini > Adaptor > Elbow

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 		
Type	Connector	Connector 1 (Female Connector / Female Contacts)
	Connector	Connector 2 (Male Connector / Male Contacts)
None- Certified NMEA 2000 (8A, 300V)	MN-000505-0FM-ES001	

Mini > Power Tap Tee

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • With replaceable fuse • Mated IP68 			<p>* Recommended Mating Pair for 3</p> <p>MN-04AFFM-SL8D**</p> <p>Male (57.8) Female (58.0)</p>  <p>Cabling Information Conforming (C): (18#*1P+AL) + (16#*1P+AL) + Drain + AL+Braid **Available in 1, 2, 5, 10 M</p>
Type	Connector	Connector 1 (Male Connector / Male Contacts)	
	Connector	Connector 2 (Female Connector / Female Contacts)	
	Connector	Connector 3 (Female Connector / Female Contacts)	
None- Certified NMEA 2000 (8A, 250V)	N-455000-MFF000-S001		
Certified NMEA 2000 (8A, 250V)	U-455000-MFF000-S001		

Mini > Cap > Waterproof Cap

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 							
				<p>4 Choose gender of mating pair: Male(M) / Female(F)</p>			
Size	Mating Pair	Mating Style	P/N				
Mini	Receptacle and Overmolded with Cable	Screw Thread	CAP-WMN 4 SMA1				

* Design and specification are subject to change without notice.

➤ Mini to Micro > Adaptor > T-Adaptor

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 	
Type Connector	Connector 1 (Female Connector / Female Contacts)
	Connector 2 (Male Connector / Male Contacts)
	Connector 3 (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	NC-050505-FMF-TS001
Certified NMEA 2000 (4A, 60V)	UNC-050505-FMF-TS001

➤ Mini to Micro > I-Adaptor

<ul style="list-style-type: none"> • 5 Contacts • Screw Thread • Mated IP68 	
Type Connector	Connector 1 (Male Connector / Male Contacts)
	Connector 2 (Female Connector / Female Contacts)
None- Certified NMEA 2000 (4A, 60V)	NC-000505-0MF-IS001

Memo

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