



SGConn® NMEA 2000 Connectors



Introduction

SGConn® NMEA 2000® standard contains the requirements of a serial data communications network to inter-connect marine electronic equipment on vessels. The standard describes a low-cost moderate capacity bi-directional, multi-transmitter/multi-receiver instrument network to interconnect marine electronic devices. SGConn® supplies a complete line of NMEA 2000® approved cabling and connectors to form a reliable backbone for NMEA 2000® for thin backbones.

Installation Styles



Bulkhead Connector



Molded with Cable



Terminator



Adaptor

Applications

Applications for Marine Electronics in solutions of GPS, Autopilot, Instruments, and AV/Entertainment.



Certifications and Membership

SGConn® Circular Connectors are built to the highest quality and specifications and fulfills European Union regulations for NMEA 2000, RoHS, UL and major worldwide safety requirements.



Specifications

Material

- Contact: Copper Alloy, Gold Plated
- Connector Body: TPU, UL Recognized

Temperature Range

- Cable: -20°C to +75°C(PVC)
- Connector Body: -40°C to +80°C

IP Rating

- IP67

Contact Resistance

- $\leq 10\text{m}\Omega$

Insulation Resistance

- $\geq 100\text{M}\Omega$ at DC 500V

Durability

- 1,000 cycles minimum

Breakdown Voltage

- $\geq \text{AC } 500\text{V} / 1 \text{ minute}$

Corrosion

- 48 hours salt spray contact

Cable Specifications

ODVA(24#*1P+AL)+(22#*1P+AL)+ADB

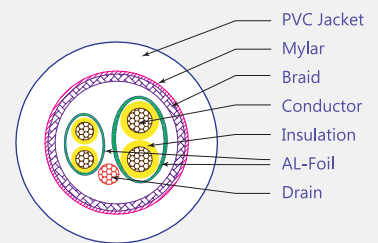
- Rating Temperature: 75°C
- Voltage: 300V
- UL Recognized: E34972

- Conductor (AWG/ Cond. Size)
 - 22AWG : 19/0.16 $\pm$ 0.008mm
 - 24AWG : 19/0.10 $\pm$ 0.008mm

- Insulation (Material/ OD/ Color Code)
 - 22AWG : PVC; OD1.8 $\pm$ 0.1mm; Color #White/#Blue
 - 24AWG : PPE; OD2.0 $\pm$ 0.1mm; Color #Red/ #Black

- Jacket (Material/ OD)
 - PVC (UV Resistant) in Gray; OD7.10 $\pm$ 0.25mm

- Drain
 - 22AWG



SGConn® NMEA 2000 Connectors

Selection Guide

Micro Size

A-Coded 5A: 5 pins



5A: 5

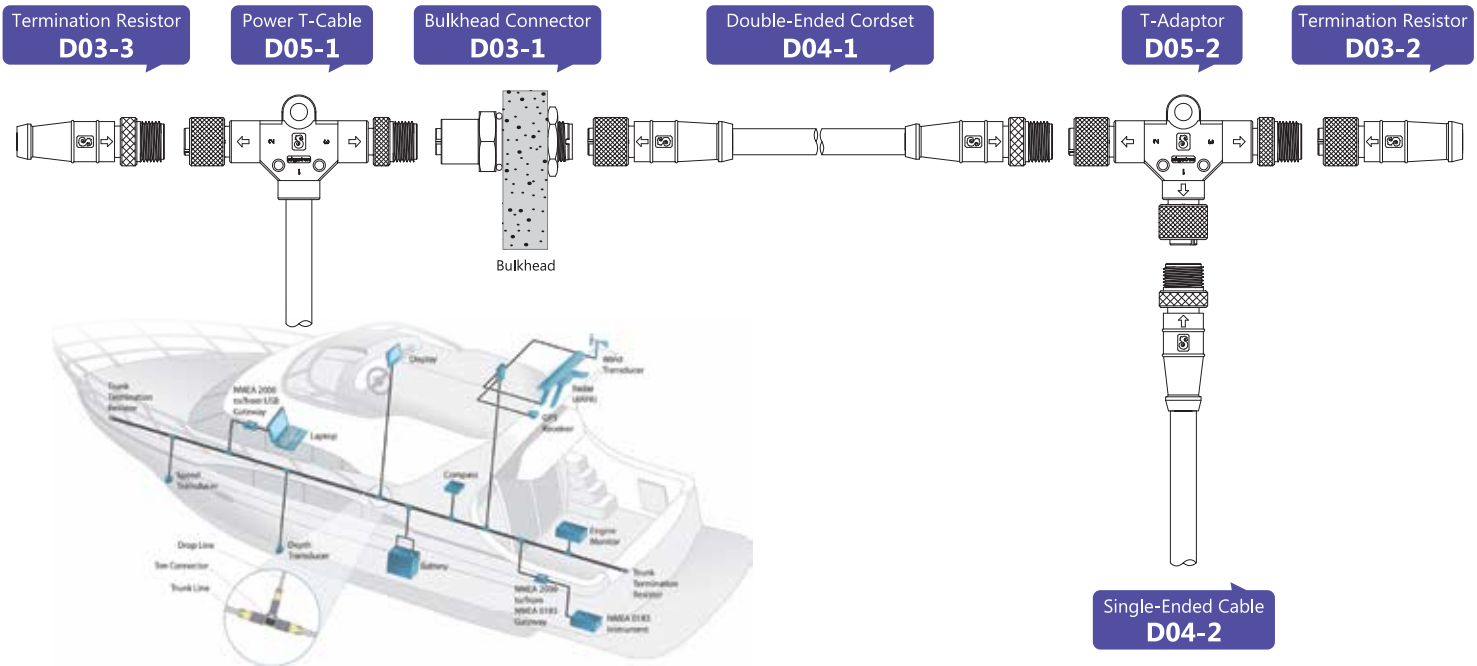
(1) Series No.

(2) (3) (4)

(2) Number of Pins: [05] 5 pins
(3) Current Rating: [3] 5A
(4) Serial Number

2 MT 30 XX - X 05 3 XX

Product No.		NMEA 2000 Connectors	Backshell	Conn.	Pin	Pin Configuration	Page
NMEA 2000 Certified	NMEA 2000 Non-Certified						
2MT302A-X05300	-	Micro Bulkhead Screw Connector	Hexagon	M&F	-	A-Coded 5A: 5 pins	D03-1
2MT3010-X05327	2MT3010-X05328	Termination Resistor	Straight	F	F	A-Coded 5A: 5 pins	D03-2
2MT3012-X05338	2MT3012-X05340	Termination Resistor	Straight	M	M	A-Coded 5A: 5 pins	D03-3
2MT3012-X05339	2MT3012-X05331	Micro Cordset (Double Ended)	Straight	F to M	-	A-Coded 5A: 5 pins	D04-1
2MT3012-X05344	2MT3012-X05341	Micro Cable Assembly (Single Ended)	Straight	M	M	A-Coded 5A: 5 pins	D04-2
2MT303T-X05309	2MT303T-X05304	Micro Power T-Cable	Straight	M&F	-	A-Coded 5A: 5 pins	D05-1
2MT303T-X05310	2MT303T-X05301	Micro T-Adaptor (One-way Tee)	-	M&F	-	A-Coded 5A: 5 pins	D05-2
-	2MT303T-X05308	Micro L-Adaptor	-	M&F	-	A-Coded 5A: 5 pins	D06-1
-	2MT303T-X05313	Micro T-Adaptor (Two-way Tee)	-	M&F	-	A-Coded 5A: 5 pins	D06-2
-	2MT303T-X05314	Micro T-Adaptor (Four-way Tee)	-	M&F	-	A-Coded 5A: 5 pins	D06-3





Micro Size

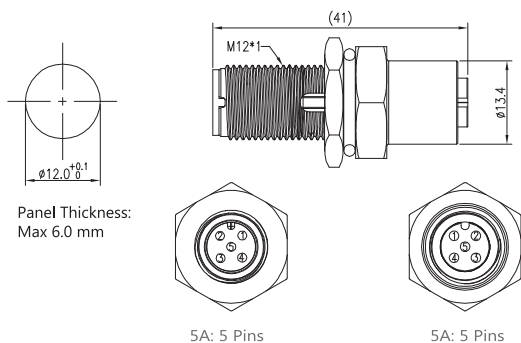
D03-1

Micro Bulkhead Screw Connector

Male & Female Connector



2MT302A-X05300
NMEA 2000 Certified



Micro Size

D03-2

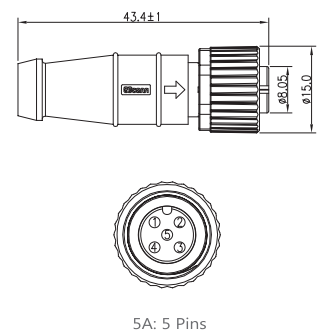
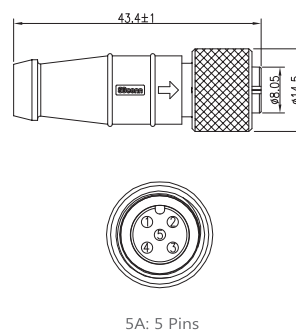
Termination Resistor

Female Connector



2MT3010-X05327
NMEA 2000 Certified

2MT3010-X05328
NMEA 2000 Non-Certified



Micro Size

D03-3

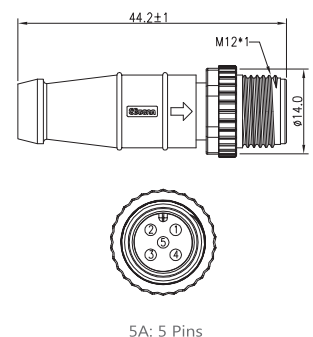
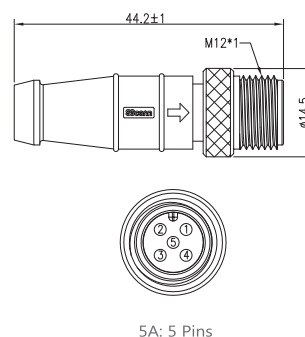
Termination Resistor

Male Connector



2MT3012-X05338
NMEA 2000 Certified

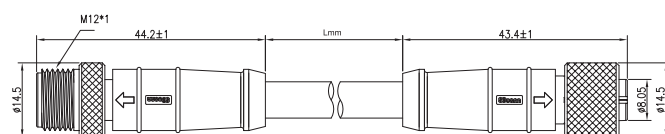
2MT3012-X05340
NMEA 2000 Non-Certified



Micro Size

D04-1
Micro Cordset (Double Ended)
Female to Male Connector

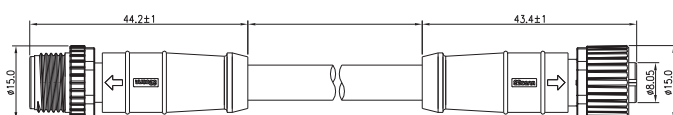
 2MT3012-X05339
 NMEA 2000 Certified

 2MT3012-X05331
 NMEA 2000 Non-Certified


5A: 5 Pins



5A: 5 Pins



5A: 5 Pins

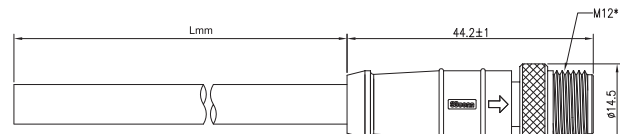
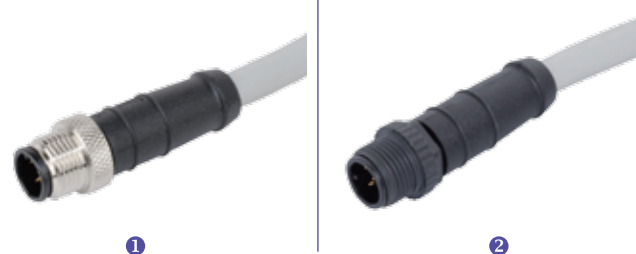


5A: 5 Pins

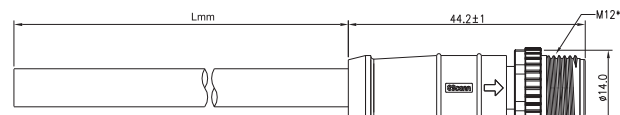
Micro Size

D04-2
Micro Cable Assembly (Single Ended)
Male Connector

 2MT3012-X05344
 NMEA 2000 Certified

 2MT3012-X05341
 NMEA 2000 Non-Certified


5A: 5 Pins



5A: 5 Pins

Micro Size

D05-1

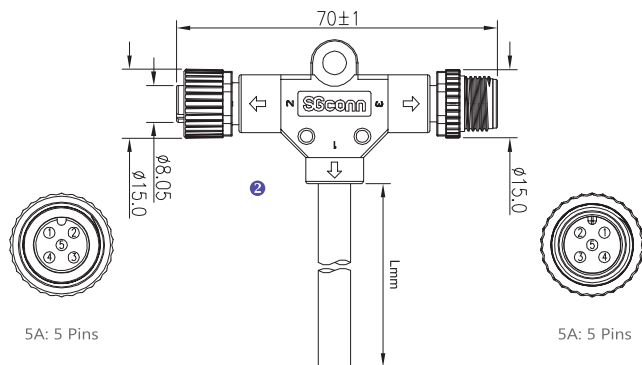
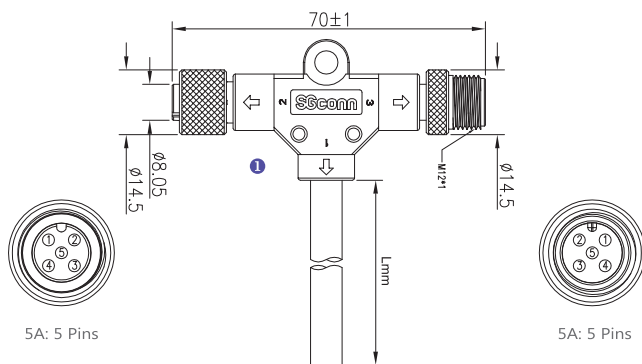
Micro Power T-Cable

Female & Male Connector



2MT303T-X05309
NMEA 2000 Certified

2MT303T-X05304
NMEA 2000 Non-Certified



Micro Size

D05-2

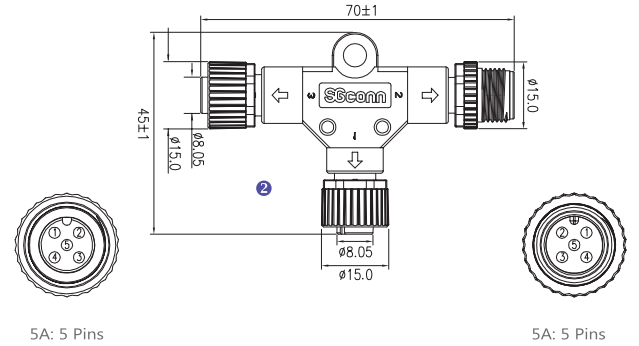
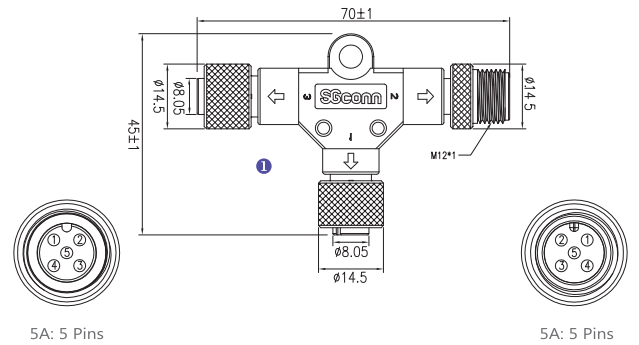
Micro T-Adaptor (One-way Tee)

Female & Male Connector



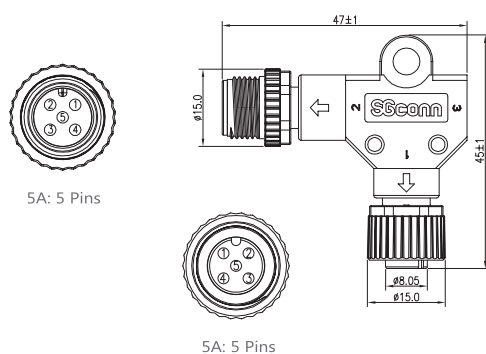
2MT303T-X05310
NMEA 2000 Certified

2MT303T-X05301
NMEA 2000 Non-Certified



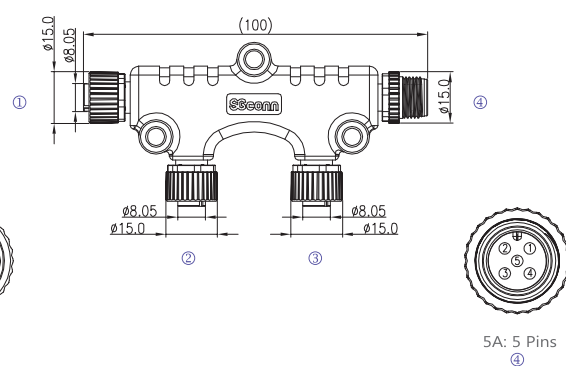
Micro Size

D06-1
Micro L-Adaptor
Male & Female Connector

 2MT303T-X05308
 NMEA 2000 Non-Certified


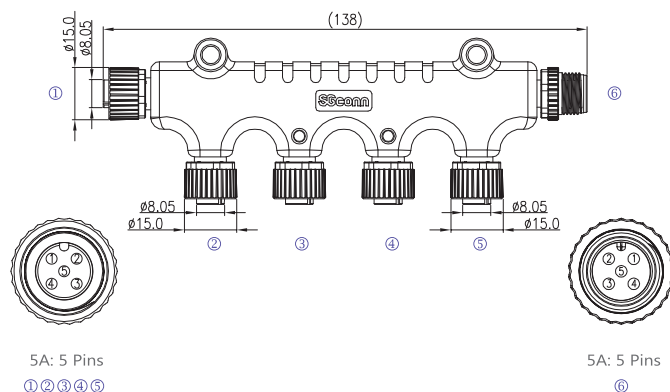
Micro Size

D06-2
Micro T-Adaptor (Two-way Tee)
Male & Female Connector

 2MT303T-X05313
 NMEA 2000 Non-Certified


Micro Size

D06-3
Micro T-Adaptor (Four-way Tee)
Male & Female Connector

 2MT303T-X05314
 NMEA 2000 Non-Certified




Since 1976
SINGATRON GROUP
Specialized Connector Manufacturer



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SGconn®
Waterproof Connectors

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