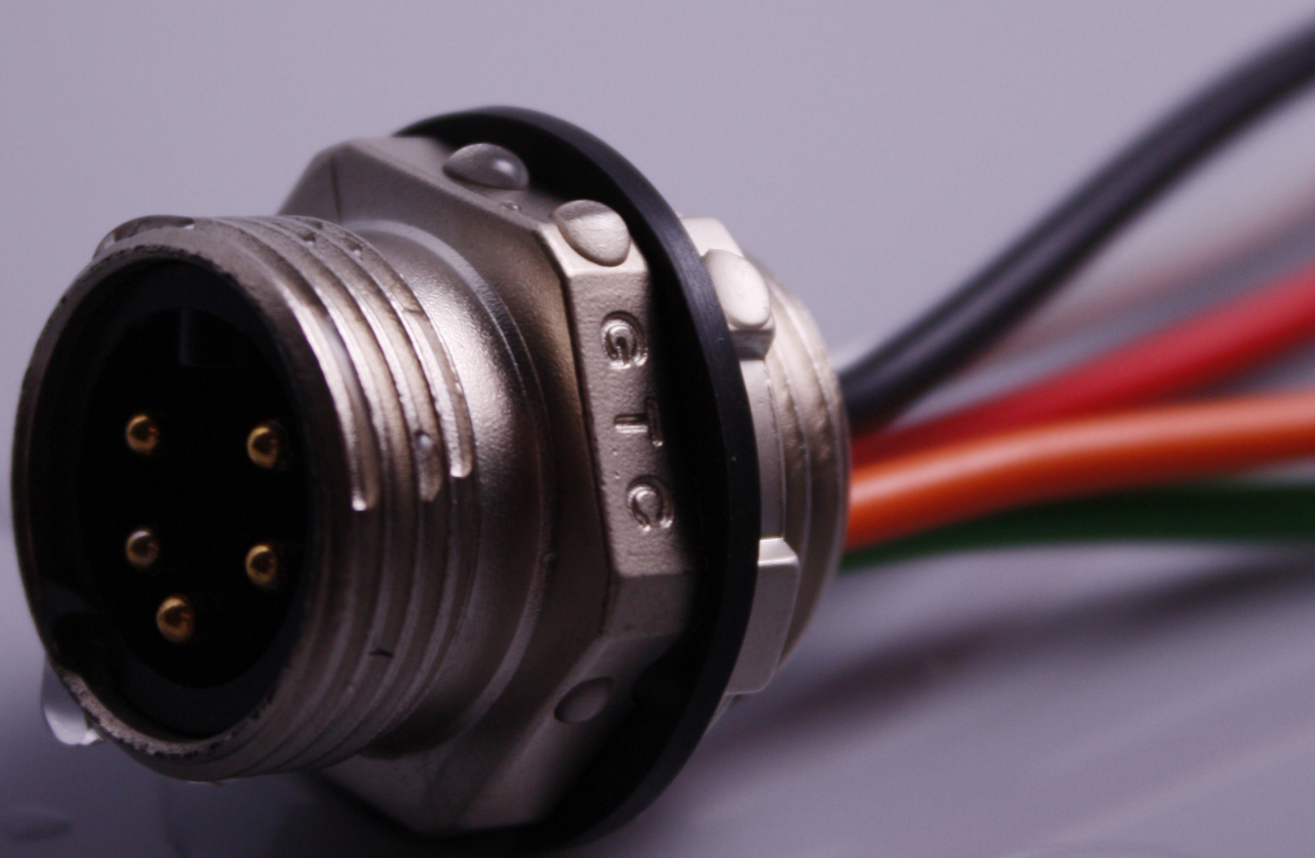
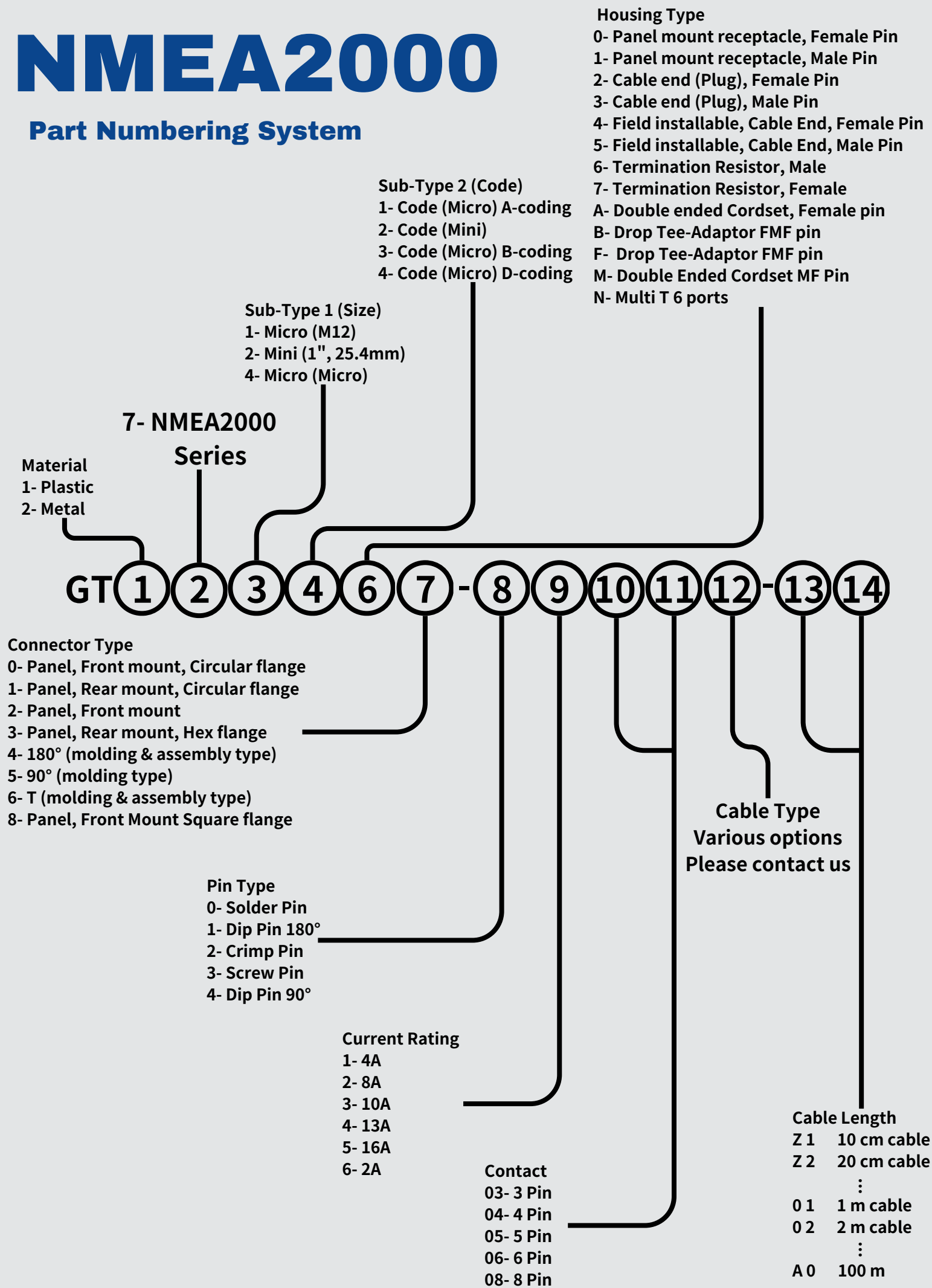


NMEA SERIES



NMEA2000

Part Numbering System



Specifications

Mini 2~5 Pin Connector Engineering Specifications				
Specifications				
Operation Temperature	With Cable -40°C / +85°C			
	Without Cable -40°C / +105°C			
IP Rating	IP68			
Number of Poles	Wiring Color Code	AWG Gauge	Voltage	Amps
3	1- GREEN 2- BLACK 3- WHITE	14 AWG & 16 AWG	600VAC/DC	13A
4	1- BLACK 2- WHITE 3- RED 4- GREEN	16 AWG	600VAC/DC	10A
5	1- WHITE 2- RED 3- GREEN 4- ORANGE 5- BLACK	16 AWG	600VAC/DC	8A
Product Technical Data				
Characteristics	Standard	Description		
Insulation Resistance	EIA 364-21	DC1000V±10% , test for 1 minute and the insulation resistance should be more than100MΩ		
Contact Resistance	EIA 364-06	50mΩ Max.		
Cable Pull-Out	EIA 364-38	Test Force:111N . Test Speed:89 N per minute ±4 N per minute and maintain specified load for 1 hour.		

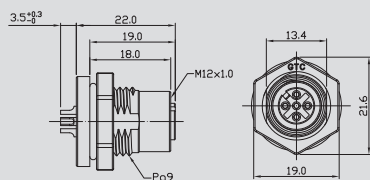
Product Technical Data		
Characteristics	Standard	Description
Cable Flexing	EIA 364-4B	A traverse 180° in one direction plus 180° in the opposite direction shall be called one cycle , the cycling rate shall be 12 to 14 cycles per minute. After completion of 100 cycles , test withstanding voltage and insulation resistance
Vibration	EIA 364-28	The electrical load conditions shall be 100mA maximum for all contacts. Frequency: 50 to 2000 Hz PDS: 0.04 g ² /Hz. Duration: 1 Hour/Axis, 3 Axes Total. g's: 7.56 g rms
Salt Spray	EIA 364-26	LAB temperature is 35°C Salt solution concentration shall be 5%. Compressing the air pressure is 0.083Mpa to 0.13 MPa (12 lb to 18 lb per square inch) Orifices of from 0.5 to 0.7 millimeter (0.02 to 0.03 inch) in diameter. Atomization of approximately 2.8 liters (3 quarts) of the salt solution per 0.28 cubic meter (10 cubic feet) of box volume per 24 hours. Test Time:condition B 48 hours
Temperature Life	EIA 364-17	Test condition 4 105°C. Test time condition A 96Hours
Humidity Test	EIA 364-31	Test Temperature: +25 °C to +65 °C. Relative Humidity: 90 to 95%. Test time condition A 96Hours
Thermal Shock	EIA 364-32	5 cycles at -40°C / +105°C , after the test, the function and appearance can't be impacted.
UV Exposure	ASTM G154-06	24Hr equal 1 year:Total require 3 years 8 h UV at 70 (± 3) °C Black Panel Temperature 4 h Condensation at 50 (± 3) °C Black Panel Temperature
Waterproof Test	IEC 60529	Under 1 M water for 24 Hr.

Specifications

NMEA2000 4A 5P Plastic Spec Engineering Specifications		
Specifications		
Current Rating	4.0A	
AWG Gauge	18/22 AWG	
Operation Temperature	With Cable -40°C / +85°C	
	Without Cable -40°C / +105°C	
IP Rating	Panel: IP68, Cable End: IP68 (Mated)	
Product Technical Data		
Characteristics	Standard	Description
Visual and Dimensional Inspection	IEC-60152-1a	Must meet or exceed the requirements specified by the most current version of the M12 Specification (Unmated).
Polarisation Method	IEC 60512-13e	Insertion force 35 N min.
Contact Resistance	IEC 60512-2a	10mΩ at 10mA Max.
Insulation Resistance	IEC 60512-3a	Test Voltage 500V±15 VDC Method A, Be more than 100MΩ
Withstanding Voltage	IEC 60512-4a	1000 VAC between contacts , 1000 VAC between contacts and metal-housing, for 1±5s min.
Insertion And Withdrawal Force	IEC60512-13b	Max. Speed: 10 mm/s maximum. Insertion force 10 N maximum Withdrawal force 15 N maximum
Gauge Retention Force	IEC60512-16e	Retention force 20g
Vibration	IEC 60512-6d	The electrical load conditions shall be 100mA maximum for all contacts. No discontinuities of 1 μs Frequency: 10 to 500 Hz , 0.35mm or 50 mm/s2 Sweep cycles: 10 Full duration: 6h

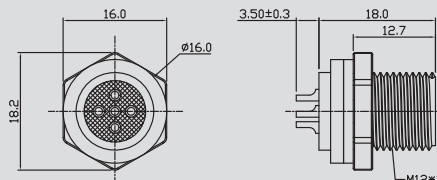
Product Technical Data		
Characteristics	Standard	Description
Shock	IEC 60512-6c	The electrical load conditions shall be 100mA maximum for all contacts. No discontinuities of 1 μ s. Half sine Shock acceleration : 490 m/s ² (50g) Duration of impact : 11ms
Mechanical Operation	IEC 60512-9a	Cycles : 100 Max. speed of operations : 10mm/s Rest : 30 s , unmated
Rapid Change Of Temperature	IEC 60512-11d	-25°C to 85°C, t=30 min. 5 cycles
Dry Heat	IEC 60512-11i	85°C, duration 16h
Damp Heat Cyclic , First Cycle	IEC 60512-11m	40°C, recovery time 2h
Cold	IEC 60512-11j	-25°C, duration 2h , recovery time 2h
Damp Heat, Cyclic Remaining Cycles	IEC 60512-11m	40°C, recovery time 2h , 5 cycles
Electrical Load And Temperature	IEC 60512-9b	Duration : 1000h Amb. Temp. : 40°C Current Load : 4A Recovery time : 2h
Salt Spray	EIA 364-26 or IEC 60512-11f	LAB temperature is 35°C Salt solution concentration shall be 5%. Compressing the air pressure is 0.083Mpa to 0.13 MPa (12 lb to 18 lb per square inch) Orifices of from 0.5 to 0.7 millimeter (0.02 to 0.03 inch) in diameter. Atomization of approximately 2.8 liters (3 quarts) of the salt solution per 0.28 cubic meter (10 cubic feet) of box volume per 24h Test Time:condition B 48h
UV Exposure	ASTM G154-06	24Hr equal 1 year:Total require 3 years 8 h UV at 70 ($\pm$ 3) °C Black Panel Temperature 4 h Condensation at 50 ($\pm$ 3) °C Black Panel Temperature
Waterproof Test	IEC 60529	Under 1 M water for 24h

Micro M12 Plastic A-Coding Panel Female Solder



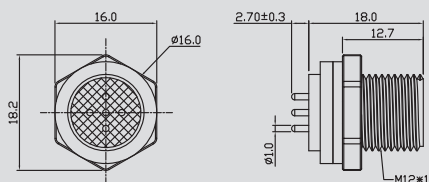
P/N	Rated current (A)	Contacts
GT171100-01050	4	5

Micro M12 Plastic A-Coding Panel Male Solder



P/N	Rated current (A)	Contacts
GT171110-01050	4	5

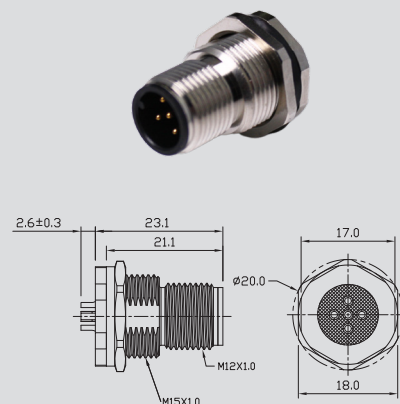
Micro M12 Plastic D-Coding Panel Male Dip



P/N	Rated current (A)	Contacts
GT171410-11050	4	5

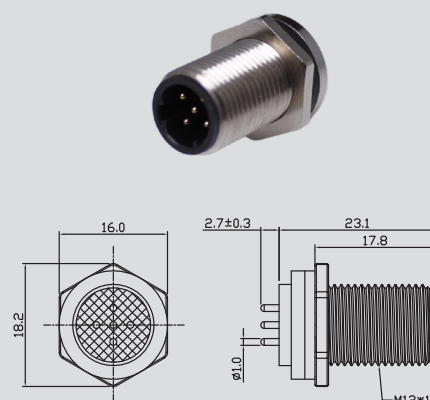
NMEA

Micro M12 Metal A-Coding Panel Male Solder



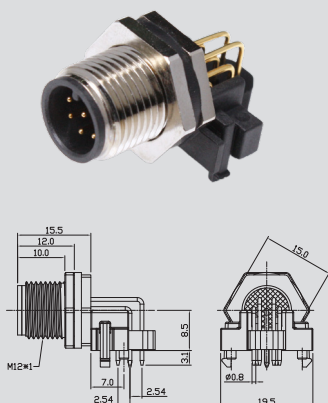
P/N	Rated current (A)	Contacts
GT271112-01050	4	5

Micro M12 Metal A-Coding Panel Circular Flange Male Dip



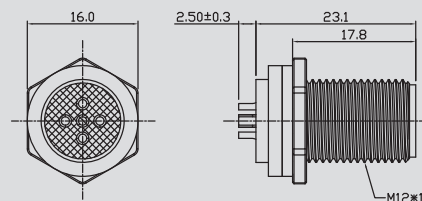
P/N	Rated current (A)	Contacts
GT271110-11050	4	5

Micro M12 Metal A-Coding Panel Male Shielding Dip 90°



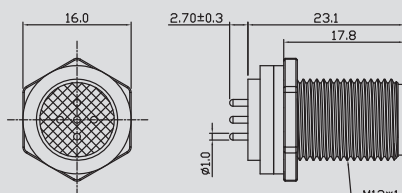
P/N	Rated current (A)	Contacts
GT271112-46080	2	8
GT271112-41050	4	5

Micro M12 Metal D-Coding Panel Male Solder



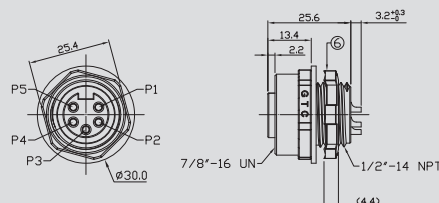
P/N	Rated current (A)	Contacts
GT271410-01050	4	5

Micro M12 Metal D-Coding Panel Male Dip



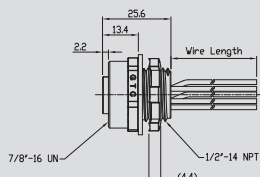
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GT271410-11050	4	5

Mini Metal Panel Rear Mount Female Solder



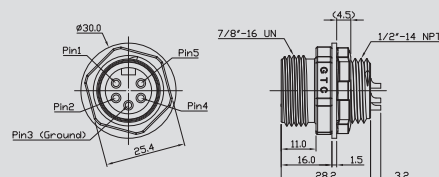
P/N	Rated current (A)	Contacts
GT272203-02050	8	5
GT272203-02060	8	6
GT272203-03040	10	4
GT272203-04030	13	3

Mini Metal Panel Rear Mount Female with Wire



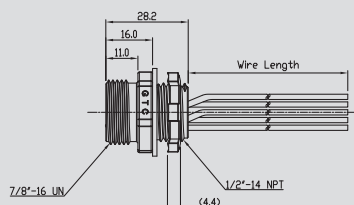
P/N	Rated current (A)	Contacts
GT272203-22058-XX	8	5
GT272203-22068-XX	8	6
GT272203-23048-XX	10	4
GT272203-2403X-XX	13	3

Mini Metal Panel Rear Mount Male Solder



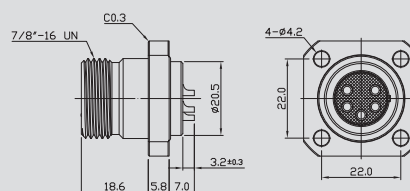
P/N	Rated current (A)	Contacts
GT272213-02050	8	5
GT272213-02060	8	6
GT272213-03040	10	4
GT272213-04030	13	3

Mini Metal Panel Rear Mount Male with Wire



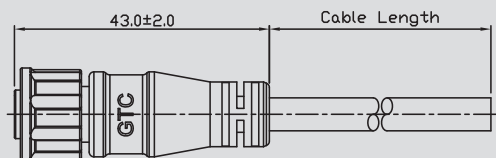
P/N	Rated current (A)	Contacts
GT272213-22058-XX	8	5
GT272213-22068-XX	8	6
GT272203-23048-XX	13	4
GT272203-24038-XX	13	3

Mini Metal Panel Front Mount Square Flange Male Solder



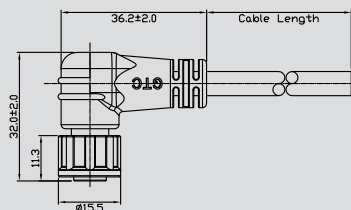
P/N	Rated current (A)	Contacts
GT272218-02050	8	5
GT272218-03040	10	4
GT272218-04030	13	3

Micro M12 Plastic A-Coding Cable End Female With Cable



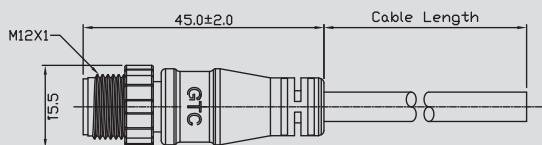
P/N	Rated current (A)	Contacts
GT171124-21055-XX	4	5

Micro M12 Plastic A-Coding Cable End 90° Female with Cable



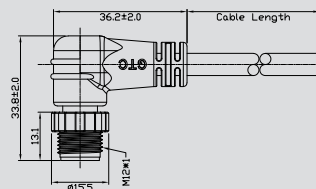
P/N	Rated current (A)	Contacts
GT171125-21055	4	5

Micro M12 Plastic A-Coding Cable End Male with Cable



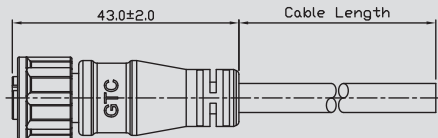
P/N	Rated current (A)	Contacts
GT171134-21055-XX	4	5

Micro M12 Plastic A-coding Cable End 90° Male with Cable



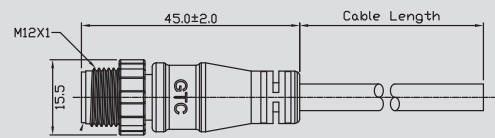
P/N	Rated current (A)	Contacts
GT171135-21055-XX	4	5

Micro M12 Plastic D-Coding Cable End Female with Cable



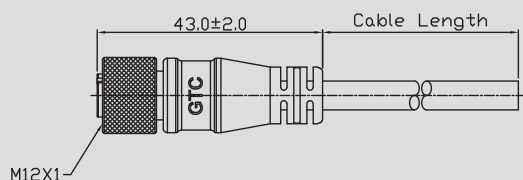
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GT171424-21055-XX	4	5

Micro M12 Plastic D-Coding Cable End Male with Cable



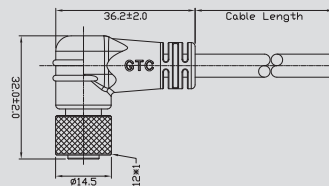
P/N	Rated current (A)	Contacts
GT171434-21055-XX	4	5

Micro M12 Metal A-Coding Cable End Female with Cable



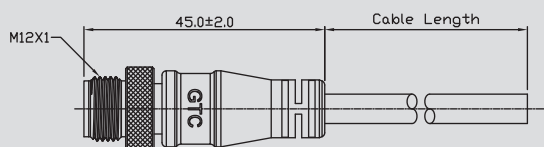
P/N	Rated current (A)	Contacts
GT271124-21055-XX	4	5
GT271124-26081-XX	2	8

Micro M12 Metal A-Coding Cable End 90° Female with Cable



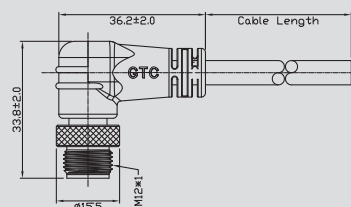
P/N	Rated current (A)	Contacts
GT271125-2105X-XX	4	5
GT271125-26081-XX	2	8

Micro M12 Metal A-Coding Cable End Male with Cable



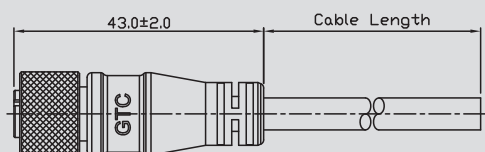
P/N	Rated current (A)	Contacts
GT271134-21055-XX	4	5

Micro M12 Metal A-Coding Cable End 90° Male with Cable



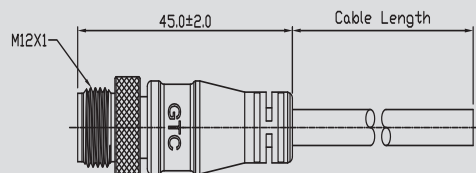
P/N	Rated current (A)	Contacts
GT271135-21055-XX	4	5

Micro M12 Metal D-Coding Cable End Female with Cable



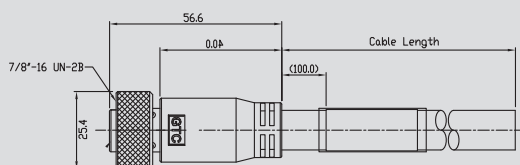
P/N	Rated current (A)	Contacts
GT271424-21055-XX	4	5

Micro M12 Metal D-Coding Cable End Male with Cable



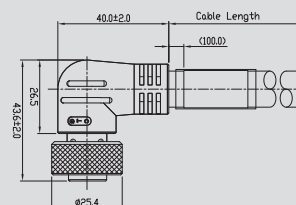
P/N	Rated current (A)	Contacts
GT271434-21055-XX	4	5

Mini Metal Cable End Female with Cable



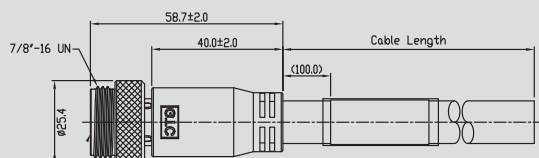
P/N	Rated current (A)	Contacts
GT272224-2205B-XX	8	5
GT272224-2206B-XX	8	6
GT272224-2304B-XX	10	4
GT272224-2403B-XX	13	3

Mini Metal Cable End 90° Female with Cable

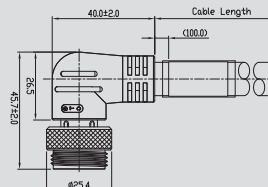


P/N	Rated current (A)	Contacts
GT272225-2205B-XX	8	5
GT272225-2206B-XX	8	6
GT272225-2304B-XX	10	4
GT272225-2403B-XX	13	3

Mini Metal Cable End Male with Cable



Mini Metal Cable End 90° Male with Cable



P/N	Rated current (A)	Contacts
GT272234-2205B-XX	8	5
GT272234-2206B-XX	8	6
GT272234-2304B-XX	10	4
GT272234-2403B-XX	13	3

P/N	Rated current (A)	Contacts
GT272235-2205B-XX	8	5
GT272235-2206B-XX	8	6
GT272235-2304B-XX	10	4
GT272235-2403B-XX	13	3

Micro M12 Metal A-Coding Field Installable Cable End Female Screw-In



P/N	Rated current (A)	Contacts
GT271144-31030	4	3
GT271144-31040	4	4
GT271144-31050	4	5

Micro M12 Metal A-Coding Field Installable Cable End Male Screw-In



P/N	Rated current (A)	Contacts
GT271154-31030	4	3
GT271154-31040	4	4
GT271154-31050	4	5

Micro M12 Metal D-Coding Field Installable Cable End Male Screw-In



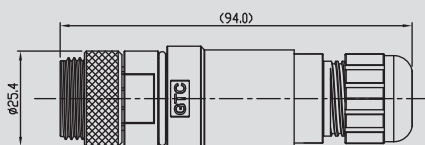
P/N	Rated current (A)	Contacts
GT271454-31040	4	4

Mini Metal Field Installable Cable End Female Screw-In



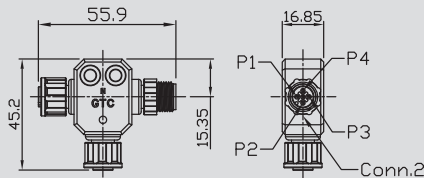
P/N	Rated current (A)	Contacts
GT272244-32050	8	5
GT272244-33040	10	4
GT272244-34030	13	3

Mini Metal Field Installable Cable End Male Screw-In



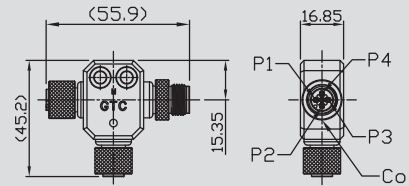
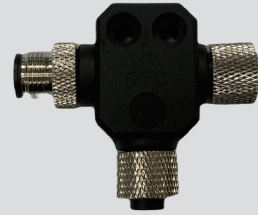
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GT272254-32050	8	5
GT272254-33040	10	4
GT272254-34030	13	3

2000 Micro Tee Plastic



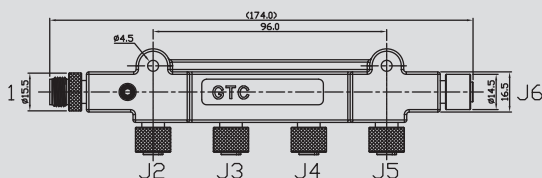
P/N	Rated current (A)	Contacts
GT1731F6-21050	4	5

2000 Micro Tee Metal



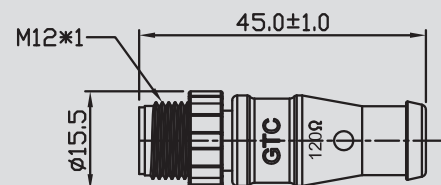
P/N	Rated current (A)	Contacts
GT2731F6-21050	4	5

Micro Tee 6 Port Metal



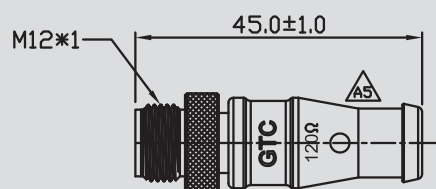
P/N	Rated current (A)	Contacts
GT2731N6-11050	4	5

Micro Plastic Termination Resistors



P/N	Rated current (A)	Contacts	Gender
GT171164-21050	4	5	Male
GT171174-21050	4	5	Female

Micro Metal Termination Resistors



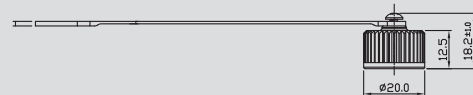
P/N	Rated current (A)	Contacts	Gender
GT271164-21050	4	5	Male
GT271174-21050	4	5	Female

Cap Plastic for Micro M12 Female Screw



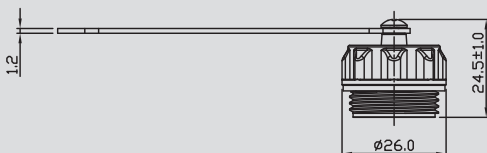
P/N	Mating Series No.
GT1C3430X2	GT271102 Series

Cap Plastic for Micro M12 Male Screw



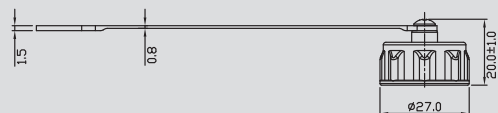
P/N	Mating Series No.
GT1C3431X2	GT171110 Series
	GT171410 Series
	GT271110 Series
	GT271112 Series
	GT271410 Series

Cap Plastic For Mini Female End



P/N	Mating Series No.
GT1C7330X2	GT272203 Series

Cap Plastic For Mini Male End



P/N	Mating Series No.
GT1C7331X2	GT272213 Series
	GT272218 Series



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