

Amphenol

MW Series

MIL-DTL-55181



Amphenol

Introduction

Amphenol MW series power connectors are MIL Qualified & listed in QPL & meets the requirement of MIL-DTL-55116.

MW series power connectors are with center lock coupling screw, waterproof & polarized. Connectors used for interconnection of power & control circuit electric equipment specially in U.S. Army Communication System.

These connectors are designed to withstand high shock & vibrations ensured with center locking screw mechanism.

Military Radios



Harsh Environment Communications



Ground Vehicles



	Page
Introduction -----	1
Specification -----	2
QPL Approval Letter -----	3
Receptacle Assembly & Plug Assembly -----	4
Receptacle Connector & Plug Connector -----	5 - 7
List Of Qualified Part Numbers -----	8

Materials & Finish

Part	Material	Finishes
Plug Shell	Aluminum Alloy	Cadmium Plate with Olive drab chromate finish
Receptacle Shell	Brass	Cadmium Plate with Olive drab chromate finish
Nose Piece	Alloy Steel	Cadmium Plate with Olive drab chromate finish
Draw Screws	Stainless Steel	Passivation
Pin Contact	Brass	1.27 Micron Gold over Nickel
Socket Contact	Copper Alloy with BeCu Spring Element	1.27 Micron Gold over Nickel
Insulator	Glass-filled dially phthalate, type GDF-30F or SDG-F	

Mechanical

Contact Retention	10 lbs
Durability	500 Cycle
Insert Strength	400 lbs

Electrical

Operating Current 4 Contacts (12 AWG)	35 Amp
Operating Current 9 & 18 Contacts (20 AWG)	7.5 Amp
Contact Resistance 4 Contacts (12 AWG)	<0.57 milli Ohms (20 m V drop at 35 A)
Contact Resistance 9 & 18 Contacts (20 AWG)	<3.33 milli Ohms(20 m V drop at 7.5 A)
Insulation Resistance	1000 M Ohms min at 500 Vdc
Dielectric with Standing Voltage- 4 Contacts (12 AWG)	2000 V RMS
Dielectric with Standing Voltage- 18 Contacts(20 AWG)	1500 V RMS

Environmental

Operating Temperature	-55 Deg C To + 85 Deg C
Air Pressure	2.5 PSI
Water Immersion	6 Feet, 48 Hours



DEFENSE LOGISTICS AGENCY
DEFENSE SUPPLY CENTER, COLUMBUS
POST OFFICE BOX 3990
COLUMBUS, OH 43218-3990

DSCC-VQP-09-019067 (Mr. Funk/614-692-6608/jf)
 SUBJECT: Qualification for MIL-DTL-55181
 DSCC Test Report Number 55181-2284-08
 FSC 5935, Preparing Activity: DLA-CC

OCT 6 2009

Ms. Seema Tiwari
 Sr. Deputy Manager QA
 Amphenol Interconnect India Pvt. Ltd.
 105, Bhosari Industrial Estate
 Pune-411026 (INDIA)

Dear Ms. Tiwari:

We have received Amphenol Interconnect India's test report and supporting data dated August 18, 2009. Qualification of your products is granted under the Military Specification Sheets listed below as a result of providing exhibit samples that demonstrate your capability to manufacture these products to Military Specification MIL-DTL-55181.

GOVERNMENT DESIGNATION	MANUFACTURER'S DESIGNATION OR TYPE NUMBER	TEST OR QUALIFICATION REFERENCE	SUPPLIER'S NAME
M55181/1-01	MW10F(M)A11	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/1-02	MW10F(M)A13	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/1-03	MW10F(M)A17	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/1-04	MW10F(M)A19	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/1-05	MW10F(M)A15	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/2-01	MW20M(M)A00	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/3-01	MW10M(M)A11	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/3-02	MW10M(M)A13	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/3-03	MW10F(M)A17	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/3-04	MW10M(M)A19	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/3-05	MW10M(M)A15	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/4-01	MW20F(M)A00	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/7-01	MW10M(M)D11	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/7-02	MW10M(M)D13	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/7-03	MW10M(M)D17	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/7-04	MW10M(M)D19	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/7-05	MW10M(M)D15	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.
M55181/8-01	MW20F(M)D00	55181-2284-08	Amphenol Interconnect India Pvt. Ltd.

A detailed listing of the connector type under the Military Specification Sheet will be listed on the Qualified Products List (QPL) 55181. This qualification is subject to the conditions stated in DoD 4120.24-M and SD-6.

Because we are held responsible for the accuracy and currency of this QPL, please let us know if your company discontinues production of these products.

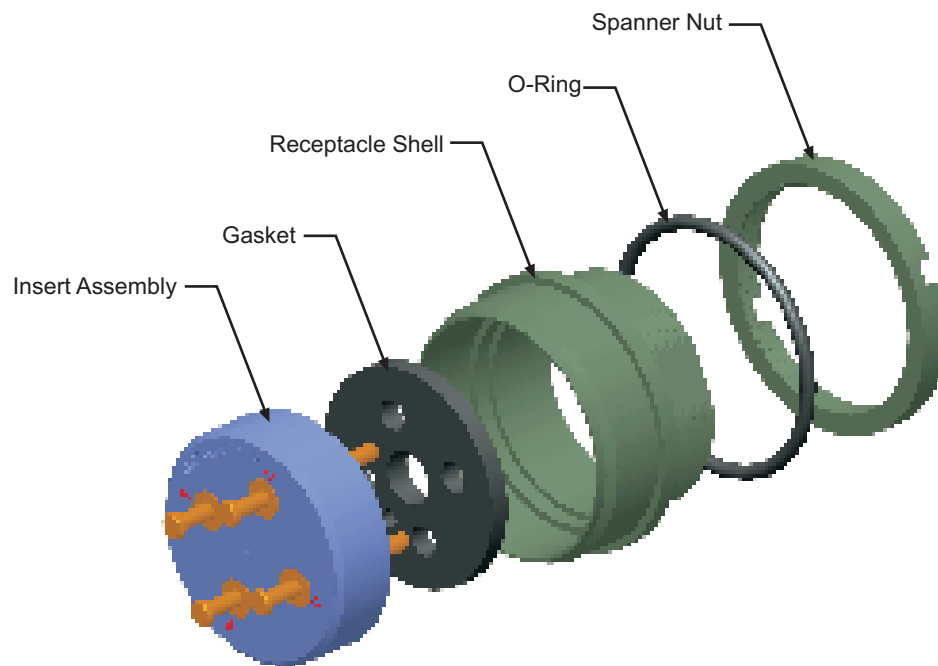
If you have any questions concerning this letter, please contact Mr. Funk at 614-692-6608 or email Jeremy.Funk@dla.mil.

Sincerely,

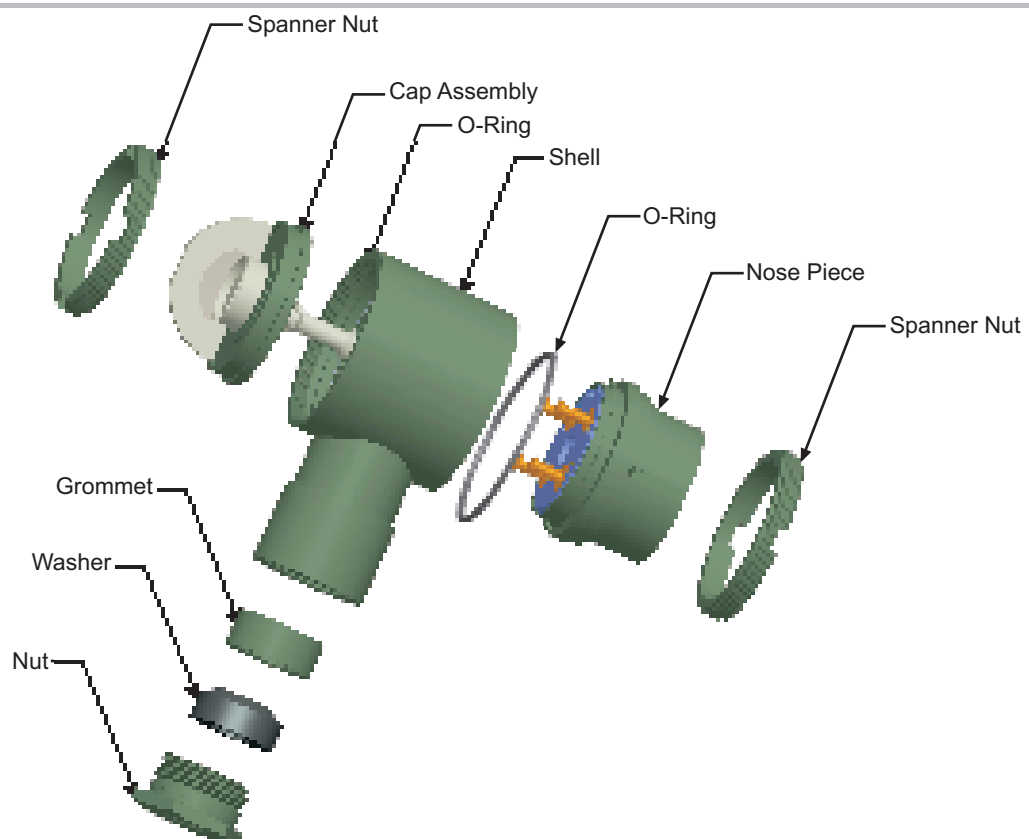


Division

Receptacle Assembly



Plug Assembly

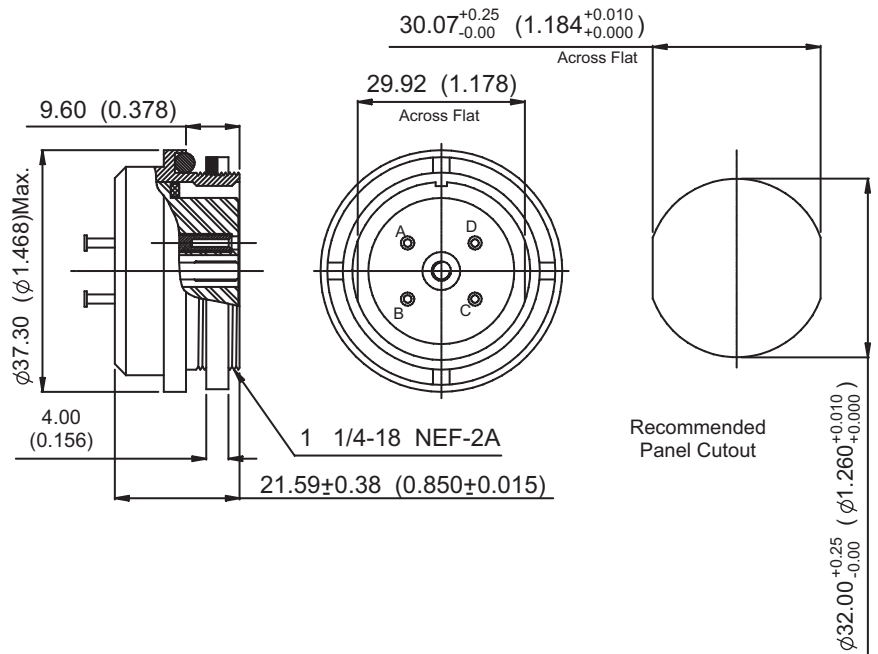
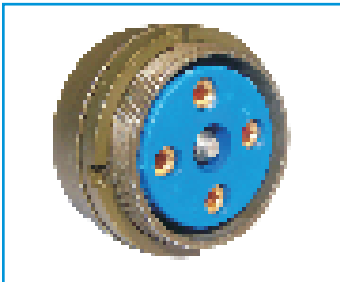


Receptacle Connector

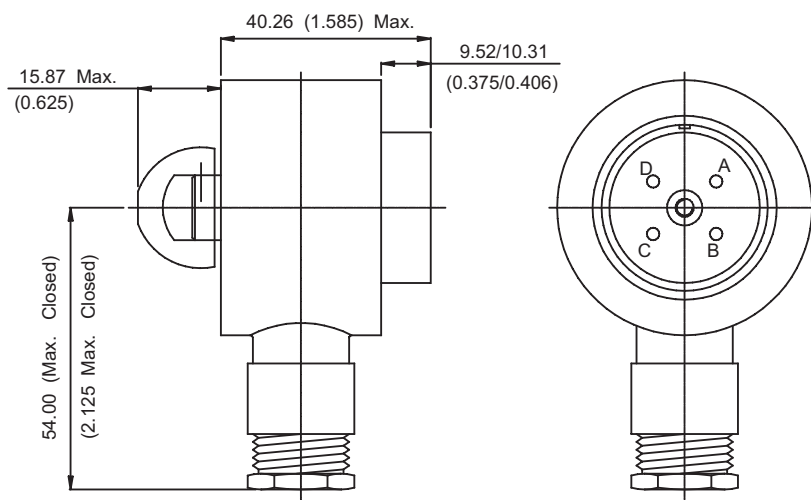
MW20M(M)AXX (M55181/2-XX)



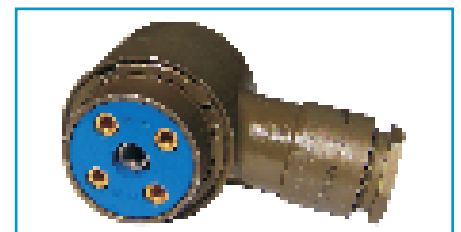
MW20F(M)AXX (M55181/4-XX)



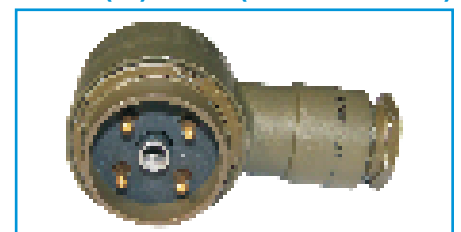
Plug Connector



MW10F(M)AXX (M55181/1-XX)



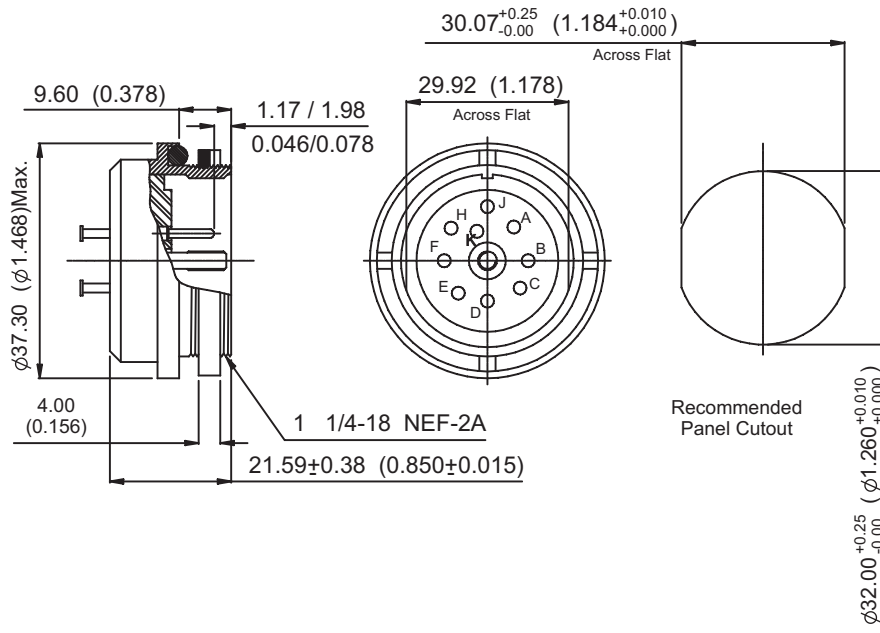
MW10M(M)AXX* (M55181/3-XX)



* For Complete Part No. Replace "XX"
With Cable Clamp Code Shown In The Table-2 (page 8)

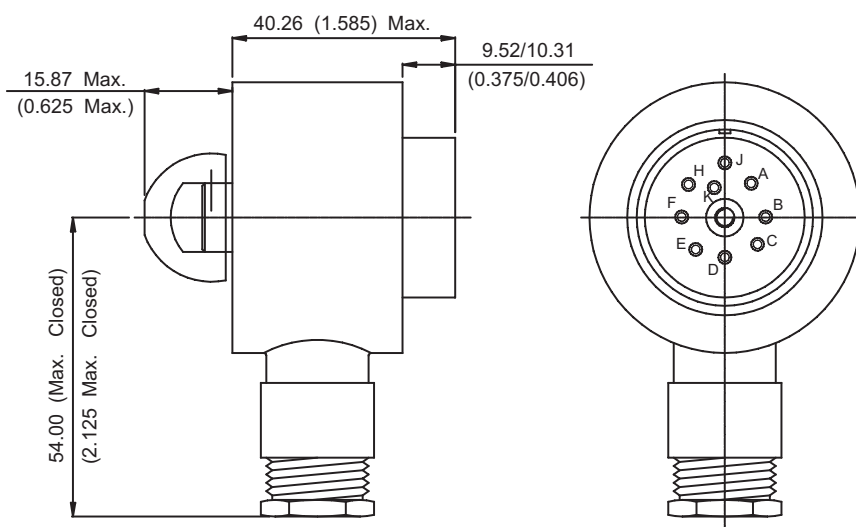
Receptacle Connector

MW20F(M)BXX (M55181/6-XX)



Plug Connector

MW10M(M)BXX (M55181/5-XX)

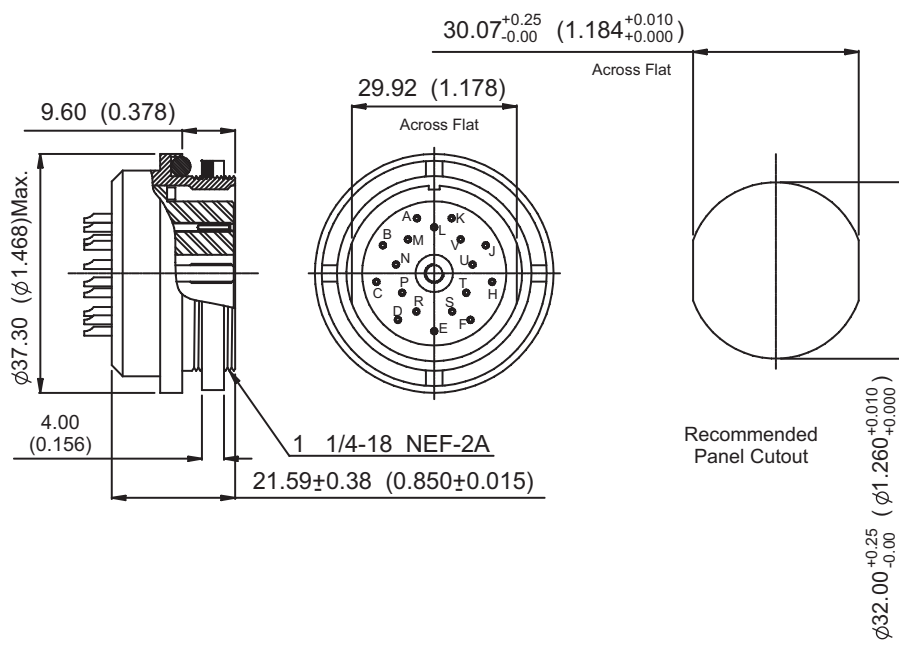
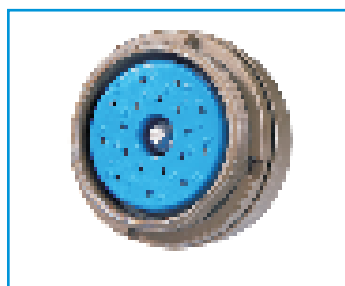


* For Complete Part No. Replace "XX"
With Cable Clamp Code Shown In The Table-2 (page 8)

* Above connectors are not tooled up, contact factory

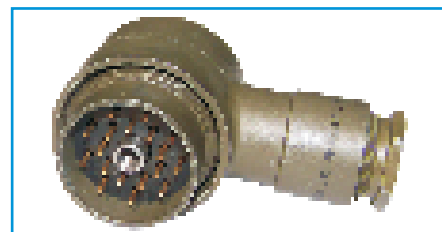
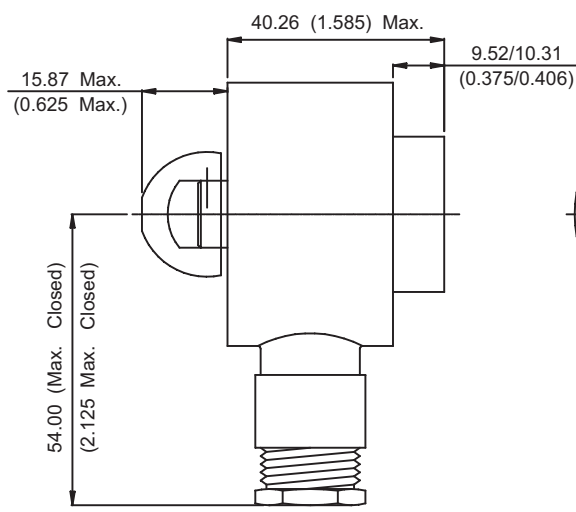
Receptacle Connector

MW20F(M)DXX (M55181/8-01)



Plug Connector

MW10M(M)DXX* (M55181/7-XX)



* For Complete Part No. Replace "XX"
With Cable Clamp Code Shown In The Table-1 (page 8)

Notice : All information, including illustrations given herein is believed to be accurate at the time of printing. In lieu of design advances, Amphenol reserves the right to change specifications without notice. This publication MW Series Connectors 01/10 supercedes all existing Amphenol literature on MW Series Connectors.

M 55181 / 1 - 01

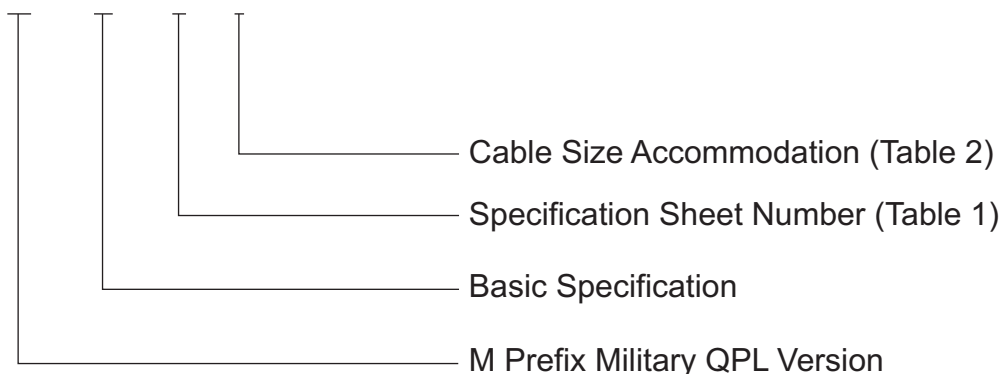


Table 1

MIL Designation	Amphenol Designation
M55181/1-01	MW10F(M)A11
M55181/1-02	MW10F(M)A13
M55181/1-03	MW10F(M)A17
M55181/1-04	MW10F(M)A19
M55181/1-05	MW10F(M)A15
M55181/2-01	MW20M(M)A00
M55181/3-01	MW10M(M)A11
M55181/3-02	MW10M(M)A13
M55181/3-03	MW10M(M)A17
M55181/3-04	MW10M(M)A19
M55181/3-05	MW10M(M)A15
M55181/4-01	MW20F(M)A00
M55181/7-01	MW10M(M)D11
M55181/7-02	MW10M(M)D13
M55181/7-03	MW10M(M)D17
M55181/7-04	MW10M(M)D19
M55181/7-05	MW10M(M)D15
M55181/8-01	MW20F(M)D00

Table 2

Cable Clamp Code for M55181 Part No.	Cable Clamp Code For MW Part No.	Cable Diameter-Inch	Cable Diameter-mm
1	11	0.292 to 0.343	7.42 to 8.71
2	13	0.323 to 0.406	8.20 to 10.31
3	15	0.386 to 0.468	9.80 to 11.88
4	17	0.448 to 0.531	11.38 to 14.49
5	19	0.511 to 0.593	12.98 to 15.06

* Cable size accommodation specification is not applicable for receptacles

NORTH AMERICA

Sales & Product Support

Amphenol PCD
72 Cherry Hill Drive
Beverly, MA 01915 USA
Tel: +1-978-624-3400
Fax: +1-978-927-1513
info@amphenolpcd.com
www.amphenolpcd.com
www.backshellworld.com

Amphenol Aerospace Operations
40-60, Delaware Avenue
Sidney, NY 13838-1395
Tel: +1-607-563-5011
Fax: +1-607-563-5357

Amphenol Canada
Meford Drive
Scarborough,
ON M1B 2X6
Tel: +416-291-4401
Fax: +416-292-0647

Amphenol Fiber Systems International
1300 Central Expressway North
Suite 100 Allen, Texas 75013, USA
Tel: +1-214-547-2400
Fax: +1-214-547-9344

EUROPE

France

Amphenol Socapex S.A.S.
948, Promenade de l'Arve
Bp29, Thyez Cedex
74311, France
Tel: +33-4-5089-2800
Fax: +33-4-5096-1941

United Kingdom

Amphenol Limited
Thanet Way, Whitstable
Kent CT5 3JF, England
Tel: +44-1227-773-200
Fax: 44-1227-276-571

Germany

Amphenol-Air LB GmbH
Am Kleinbahnhof 4
Saarlouis
D-66740, Germany
Tel: 49-6831-9810-00
Fax: 49-6831-9810-30

Italy

Via Barbaiana 5
20020 Lainate (Milano)
Italy
Tel: +39-02-93254.209
+39-02-93254.214
Fax: +39-02-93254-444

Center & East Europe

Amphenol
Wiener Gasse 68
2380 Perchtoldsdorf
Tel: +43-699-10396071
Fax: +43 699 40396071

Amphenol Air-LB
Immeuble Le Doublon
11, Avenue Dobonnet
Courbevoie-Cedex
92407, France
Ph: +33-1-4905-3000
Fax: +33-1-4905-3043

Spain

Amphenol Iberica
Edificio Burgosol Oficina N 55
C/Comunidad de Madrid 35
bis - Las Rozas (Madrid)
Tel: +34-91-6407302
+34-91-6407306
Fax: +34-91-6407307

Holland

Amphenol Benelux
Zadelmaker 121
NL-2401 PD Alphen aan den Rijn
Holland
Tel: +31-172-444903
Fax: +31-172 240254

Sweden

Amphenol-(Nordic&Baltic)
Ängsullsvägen 7
S-187 51 Täby.
Sweden
Tel: +46-85-1051816
+46-76-8418600
Fax: +46-70- 2634677
+46-70-2203197

ASIA

India

Amphenol Interconnect India Pvt. Ltd.
105 Bhosari Industrial Area
Pune-411026, India
Tel: +9120-3068-8305
Fax: +9120-2712-9158

Amphenol Interconnect India Pvt. Ltd.
61 Electronics City
Bangalore-560 100, India
Ph: +9180-2852-3838
Fax: +9180-2852-0418

Japan

Amphenol Japan
471-1, Deba, Ritto City
Shiga 520-3041, Japan
Tel: +81-77-553-8501
Fax: +81-77-551-2200

Korea

Amphenol Daeshin Electronics
558 SoSa, SongNae, Bucheon-City
Kyunggi-Do, Korea 420-130
Tel: +82-32-610-3800
Fax: +92-32-673-2507

Singapore

Amphenol East Asia Ltd.
72 Bendemeer Road
03-33 Luzerne
Singapore 339 941
Tel: 65-6294-2128
Fax: 65-6294-3522

China

Amphenol PCD Shenzhen
3/F Building, A4 Songbai
Industrial Park
East Road of Minghuan
Gongming Town, Baon District
Shenzhen, China
Tel: +86-755-8173-8000
Fax: +86-755-8173-8180

ROW

Australia

Amphenol Australia Pty Ltd
2 Fiveways Boulevard
Keysborough
VIC 3173
Ph: +61-3-8796-8888
Fax: +61-3-8796-8801

Africa

Amphenol South Africa
30 Impala Road
2196 Sandton-Chistlehurst
South Africa
Tel: +27-11-783-9517
Fax: +27-11-783-9519

Russia

Amphenol Russia
8-2 Yaroslavskaja Str
129164 Moscow, Russia
Tel: +7-495-937-6341
Fax: +7-495-937-6319

Poland

Amphenol Poland
Topolowa 13,
Swietochlowice
41600 Poland
Tel : + 48-32-3484-204
+ 48-32-3484-202

Israel

Bar-Tec Ltd.
P.O. Box 279
Kfar Sava, 44102 Israel
Tel: +972-9-7644100
Fax: +972-9-7674324

Maslak

34396 Istanbul
Tel: +90-212-335-2501
Fax: +90-212-335-2500

Brazil

Amphenol do Brasil Ltda
Rua Diogo Moreira 132
CEP 05423-010
Sao Paulo-SP, Brazil
Tel: +55-11-3815-1003
Fax: +55-11-3815-1629

Argentina

Amphenol Argentina
Avenida Callao 930
2nd Floor, Office B Plaza
C1023AAP Buenos Aires
Argentina
Tel: 54-11-4815-6886
Fax: 54-11-4814-5779

Amphenol

A Global Company



Pune Operations



Bangalore Operations

Amphenol

Interconnect India Pvt. Ltd.

Our offices in India:

MARKETING HEAD QUARTERS

105, Bhosari Industrial Area,
Pune - 411 026.
Tel.: 91- 020 - 30688303, 30688304
Fax : 91 - 020 - 30688321
Email : vbhavsar@amphenol-in.com
sales@amphenol-in.com

Southern Region

4931, 11th Floor, High Point IV
45, Palace Road, Bangalore 560 001.
Tel.: 91-80-22281392, 22281002
Fax : 91-80-22253859
Email : kmanoj@amphenol-in.com

Northern and Eastern Region

1414, 14th Floor, Chiranjiv Tower,
43, Nehru Place, New Delhi - 110 019.
Tel. : 91-11-26449177
Telefax : 91-11-26449176
Email : sunily@amphenol-in.com

Export

105, Bhosari Industrial Area,
Pune - 411 026, India.
Tel.: 91- 20 - 30688305, 30688353
Fax : 91- 20 - 27129158
Email : svpatil@amphenol-in.com

Western Region

105, Bhosari Industrial Area,
Pune - 411 026.
Tel.: 91- 20 - 27119735, 30688334
Fax: 91- 20 - 27120581, 27119735
Email : sunilp@amphenol-in.com

Central Region

107, 1st Floor, 'Am Sri Classic',
Sarojinidevi Road, Secunderabad-500 003.
Telefax : 91- 40-66332906
Email : pprasad@amphenol-in.com

www.amphenol-in.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Amphenol:](#)

[MW10F\(M\)A11](#) [MW10F\(M\)A13](#) [MW10F\(M\)A15](#) [MW10F\(M\)A17](#) [MW10F\(M\)A19](#)