

Datamate Power High-Reliability High Current Connectors

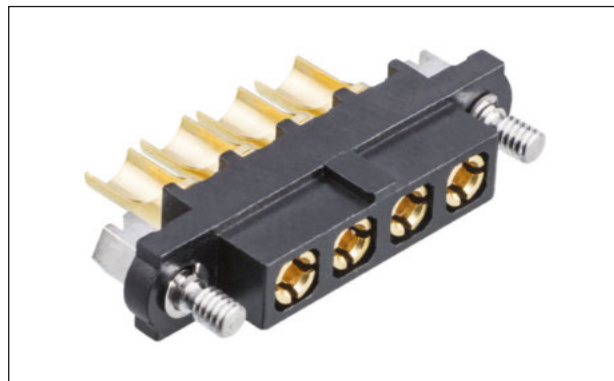
20A or 40A per contact in one compact, robust connection

Achieve high reliability and higher current-carrying capability with 4mm pitch ganged power contacts in the Datamate range. Discover board and cable mount varieties, with complete cable assemblies also available from stock.

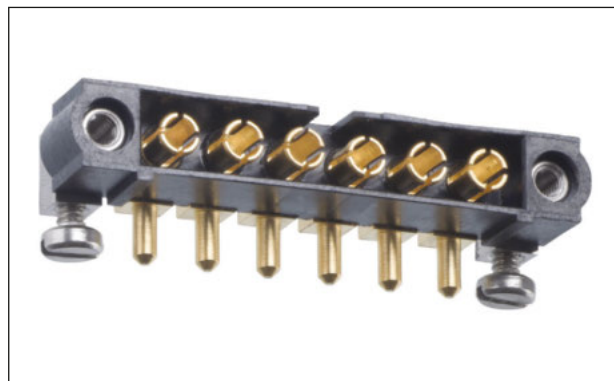
These lightweight connectors are ideal where COTS (Commercial Off-The-Shelf) substitution is possible. Guard against vibration and shock with fitted stainless steel jackscrews. These robust connectors bring you a proven track record under extreme conditions. Choose these stocked options for no leadtime, fully inspected for quality assurance.



40A male vertical PCB connector with board mount jackscrews



40A female cable connector



20A male horizontal PCB connector with board mount bolts

Features and Benefits	
Choice of 20A or 40A contact designs	High current capabilities within a compact connection
Cable assemblies with 150mm, 12 AWG or 10 AWG wire	Ready-to-use cable assemblies from stock, no lead-time
Full gold plating, 500 mating cycles	Resists wear from continued use, or durable in fit-and-forget operations
Stainless Steel jackscrew fixings	Strong and secure mating under vibration and shock, excellent robust strain relief in cable-to-board configurations
Operating temperatures of -55°C to +125°C	Rugged connector design with proven track record
World-class quality from the Original Designers of Datamate	Published test reports, proven track record, high quality requirements through the complete production cycle
Available from stock	Off-the-shelf, supported by a global distributor network

Key Applications	
Aviation & Defense	Avionics and flight controls, guidance systems, radio communications, radar
UAVs	Power distribution, control systems, autopilot & guidance
Space	Satellites & CubeSats, power management, navigation & communications, launch systems
Defense & Security	Rugged vehicle electronics, remote robotics drives, servo controls
Energy	Oil & Gas, renewable energy equipment
High-end professional electronics	Robotics, automation, drives & controls

Product Features

Choice of 20A or 40A power contacts on 4mm pitch

Polarized, shrouded housings to prevent mis-mating

Ready-made cable assemblies in 150mm (6") lengths

Female cable connectors with floating jackscrews

Jackscrew and board mount fixings

Gold plated connections withstand multiple mating cycles

Specifications					
Electrical		Mechanical		Physical	
Current rating	20A or 40A	Number of Mating Cycles	500	Housing	Glass filled PPS, UL94V-0
Voltage rating	800V AC/DC	Temperature range	-55°C to +125°C	Contacts	Copper alloy, Gold finish
Maximum Voltage	1,200V AC/DC	Vibration	10G, 6 hours total	Jackscrews	Stainless steel
Contact Resistance	6mΩ max	Shock	100G for 6ms	Cable Size	12 AWG (20A), 10 AWG (40A)
Insulation Resistance	100MΩ min			Cable Type	Copper multi-strand, PTFE insulated

Female Cable Connectors

Part Number	Contact Type	Jackscrew Type	No. of Contacts	Wire Size	Spare Contact
M80-4000000F1-02-325-00-000	20A	Hex Slotted floating	2	12 AWG	M80-325
M80-4000000F1-04-325-00-000	20A	Hex Slotted floating	4	12 AWG	M80-325
M80-4000000F1-06-325-00-000	20A	Hex Slotted floating	6	12 AWG	M80-325
M80-4000000F1-08-325-00-000	20A	Hex Slotted floating	8	12 AWG	M80-325
M80-4000000F1-10-325-00-000	20A	Hex Slotted floating	10	12 AWG	M80-325
M80-4000000F1-02-PF5-00-000	40A	Hex Slotted floating	2	10 AWG	M80-PF5
M80-4000000F1-04-PF5-00-000	40A	Hex Slotted floating	4	10 AWG	M80-PF5
M80-4000000F1-06-PF5-00-000	40A	Hex Slotted floating	6	10 AWG	M80-PF5

Male Vertical Connectors

Part Number	Contact Type	Jackscrew Type	No. of Contacts	PC Tail Length	Spare Nut
M80-5000000M1-02-331-00-000	20A	Internal only	2	3.5mm	-
M80-5000000M1-04-331-00-000	20A	Internal only	4	3.5mm	-
M80-5000000M2-02-331-00-000	20A	3.5mm board mount	2	3.5mm	M80-2130000B
M80-5000000M2-04-331-00-000	20A	3.5mm board mount	4	3.5mm	M80-2130000B
M80-5000000M2-06-331-00-000	20A	3.5mm board mount	6	3.5mm	M80-2130000B
M80-5000000M2-08-331-00-000	20A	3.5mm board mount	8	3.5mm	M80-2130000B
M80-5000000M2-10-331-00-000	20A	3.5mm board mount	10	3.5mm	M80-2130000B
M80-5000000M3-02-332-00-000	20A	5mm board mount	2	5mm	M80-2130000B
M80-5000000M3-04-332-00-000	20A	5mm board mount	4	5mm	M80-2130000B
M80-5000000M3-06-332-00-000	20A	5mm board mount	6	5mm	M80-2130000B
M80-5000000M3-08-332-00-000	20A	5mm board mount	8	5mm	M80-2130000B
M80-5000000M3-10-332-00-000	20A	5mm board mount	10	5mm	M80-2130000B
M80-5000000M1-02-PM1-00-000	40A	Internal only	2	3.5mm	-
M80-5000000M1-04-PM1-00-000	40A	Internal only	4	3.5mm	-
M80-5000000M1-06-PM1-00-000	40A	Internal only	6	3.5mm	-
M80-5000000M2-02-PM1-00-000	40A	3.5mm board mount	2	3.5mm	M80-2130000B
M80-5000000M2-04-PM1-00-000	40A	3.5mm board mount	4	3.5mm	M80-2130000B
M80-5000000M2-06-PM1-00-000	40A	3.5mm board mount	6	3.5mm	M80-2130000B

Male Horizontal Connectors

Part Number	Contact Type	Jackscrew Type	No. of Contacts	PC Tail Length	Spare Bolt
M80-5000000M5-02-333-00-000	20A	5mm board mount	2	3.5mm	M80-2270000B
M80-5000000M5-04-333-00-000	20A	5mm board mount	4	3.5mm	M80-2270000B
M80-5000000M5-06-333-00-000	20A	5mm board mount	6	3.5mm	M80-2270000B
M80-5000000M5-08-333-00-000	20A	5mm board mount	8	3.5mm	M80-2270000B
M80-5000000M5-10-333-00-000	20A	5mm board mount	10	3.5mm	M80-2270000B
M80-5000000M5-02-PM3-00-000	40A	5mm board mount	2	3.5mm	M80-2270000B
M80-5000000M5-04-PM3-00-000	40A	5mm board mount	4	3.5mm	M80-2270000B
M80-5000000M5-06-PM3-00-000	40A	5mm board mount	6	3.5mm	M80-2270000B

Spare Contacts & Fixings



M80-325
Female 20A, 12 AWG
Solder Contact



M80-PF5
Female 40A, 10 AWG
Solder Contact



M80-2130000B
Slotted Board
Mount Nut



M80-2270000B
5mm Hex Socket
Board Mount Bolt

Cable Assemblies (20A)

Part Number	Assembly Type	Jackscrew Type	No. of Contacts	Wire Size	Cable Length
M80-FC325F1-02-0150L	Female Single Ended	Hex Slotted floating	2	12 AWG	150mm
M80-FC325F1-04-0150L	Female Single Ended	Hex Slotted floating	4	12 AWG	150mm
M80-FC325F1-06-0150L	Female Single Ended	Hex Slotted floating	6	12 AWG	150mm
M80-FC325F1-08-0150L	Female Single Ended	Hex Slotted floating	8	12 AWG	150mm
M80-MC335M1-02-0150L	Male Single Ended	Internal threaded	2	12 AWG	150mm
M80-MC335M1-04-0150L	Male Single Ended	Internal threaded	4	12 AWG	150mm
M80-MC335M1-06-0150L	Male Single Ended	Internal threaded	6	12 AWG	150mm
M80-MC335M1-08-0150L	Male Single Ended	Internal threaded	8	12 AWG	150mm

Cable Assemblies (40A)

Part Number	Assembly Type	Jackscrew Type	No. of Contacts	Wire Size	Cable Length
M80-FCPF5F1-02-0150L	Female Single Ended	Hex Slotted floating	2	10 AWG	150mm
M80-FCPF5F1-04-0150L	Female Single Ended	Hex Slotted floating	4	10 AWG	150mm
M80-FCPF5F1-06-0150L	Female Single Ended	Hex Slotted floating	6	10 AWG	150mm
M80-FCPF5F1-08-0150L	Female Single Ended	Hex Slotted floating	8	10 AWG	150mm
M80-MCPM5M1-02-0150L	Male Single Ended	Internal threaded	2	10 AWG	150mm
M80-MCPM5M1-04-0150L	Male Single Ended	Internal threaded	4	10 AWG	150mm
M80-MCPM5M1-06-0150L	Male Single Ended	Internal threaded	6	10 AWG	150mm
M80-MCPM5M1-08-0150L	Male Single Ended	Internal threaded	8	10 AWG	150mm

For other variations and contact counts, please contact our Experts at www.harwin.com/contact for assistance and availability.

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