

1	2	3	4	5	6	7	8																																																							
HARTING DIN power male connector RoHS compliant				Soldering instructions The connectors should be protected when being soldered in a dip, flow or film soldering bath. Otherwise, they might become contaminated as a result of soldering operations or deformed as a result of overheating. (1) For prototypes and short runs protect the connectors with an industrial adhesive tape, e.g. Tesaband 4331 (www.tesa.de). Cover the underside of the connector moulding and the adjacent parts of the pcb as well as the open sides of the connector. This will prevent heat and gases of the soldering apparatus from damaging the connector. About 140 + 5 mm of the tape should suffice. (2) For large series a jig is recommended. Its protective cover with a fast action mechanical locking device shields the connectors from gas and heat generated by the soldering apparatus. As an additional protection a foil can be used for covering the parts that should not be soldered. Cross section of solder pins Signal 0,6 ±0,025 0,29 - 0,34 mm² 0,53 ±0,03 Power 0,8 ±0,02 0,89 - 0,97 mm² 1,16 ±0,02																																																										
General information <table><tr><td>Design</td><td>IEC 60603-2</td><td>types: MH 24+7, 21+5 male</td></tr><tr><td>No. of contacts</td><td>Signal: 21 or 24</td><td>Power: 5 or 7</td></tr><tr><td>Contact spacing</td><td colspan="2">2,54 mm x 5,08 mm</td></tr><tr><td>Test voltage</td><td>Signal: 1550V</td><td>Power: 3100V</td></tr><tr><td>Contact resistance</td><td>Signal: max. 15mOhm</td><td>Power: max. 8mOhm</td></tr><tr><td>Insulation resistance</td><td colspan="2">min. 10¹⁰Ohm</td></tr><tr><td>Working current</td><td>Signal: 6A at 20°C</td><td>Power: 15A at 20°C</td></tr><tr><td>Temperature range</td><td colspan="2">-55°C ... +125°C</td></tr><tr><td>Termination technology</td><td colspan="2">solder pins, faston</td></tr><tr><td>Clearance</td><td>Signal: min. 1,6 mm</td><td>Power: min. 4,5 mm</td></tr><tr><td>Creepage</td><td>Signal: min. 3,0 mm</td><td>Power: min. 8,0 mm</td></tr><tr><td>Insertion and withdrawal force</td><td colspan="2">max. 85N</td></tr><tr><td rowspan="3">Mating cycles</td><td>- PL1 acc. to IEC 60603-2 =></td><td>500 mating cycles</td></tr><tr><td>- PL2 acc. to IEC 60603-2 =></td><td>400 mating cycles</td></tr><tr><td>- PL3 acc. to IEC 60603-2 =></td><td>50 mating cycles</td></tr><tr><td>UL file</td><td colspan="2">E102079</td></tr><tr><td>RoHS - compliant</td><td colspan="2">Yes</td></tr><tr><td>Leadfree</td><td colspan="2">Yes</td></tr><tr><td>Hot plugging</td><td colspan="2">No</td></tr></table>				Design	IEC 60603-2	types: MH 24+7, 21+5 male	No. of contacts	Signal: 21 or 24	Power: 5 or 7	Contact spacing	2,54 mm x 5,08 mm		Test voltage	Signal: 1550V	Power: 3100V	Contact resistance	Signal: max. 15mOhm	Power: max. 8mOhm	Insulation resistance	min. 10 ¹⁰ Ohm		Working current	Signal: 6A at 20°C	Power: 15A at 20°C	Temperature range	-55°C ... +125°C		Termination technology	solder pins, faston		Clearance	Signal: min. 1,6 mm	Power: min. 4,5 mm	Creepage	Signal: min. 3,0 mm	Power: min. 8,0 mm	Insertion and withdrawal force	max. 85N		Mating cycles	- PL1 acc. to IEC 60603-2 =>	500 mating cycles	- PL2 acc. to IEC 60603-2 =>	400 mating cycles	- PL3 acc. to IEC 60603-2 =>	50 mating cycles	UL file	E102079		RoHS - compliant	Yes		Leadfree	Yes		Hot plugging	No					
Design	IEC 60603-2	types: MH 24+7, 21+5 male																																																												
No. of contacts	Signal: 21 or 24	Power: 5 or 7																																																												
Contact spacing	2,54 mm x 5,08 mm																																																													
Test voltage	Signal: 1550V	Power: 3100V																																																												
Contact resistance	Signal: max. 15mOhm	Power: max. 8mOhm																																																												
Insulation resistance	min. 10 ¹⁰ Ohm																																																													
Working current	Signal: 6A at 20°C	Power: 15A at 20°C																																																												
Temperature range	-55°C ... +125°C																																																													
Termination technology	solder pins, faston																																																													
Clearance	Signal: min. 1,6 mm	Power: min. 4,5 mm																																																												
Creepage	Signal: min. 3,0 mm	Power: min. 8,0 mm																																																												
Insertion and withdrawal force	max. 85N																																																													
Mating cycles	- PL1 acc. to IEC 60603-2 =>	500 mating cycles																																																												
	- PL2 acc. to IEC 60603-2 =>	400 mating cycles																																																												
	- PL3 acc. to IEC 60603-2 =>	50 mating cycles																																																												
UL file	E102079																																																													
RoHS - compliant	Yes																																																													
Leadfree	Yes																																																													
Hot plugging	No																																																													
Insulator material <table><tr><td>Material</td><td colspan="2">PBT (thermoplastics, glass fiber reinforcement 30%)</td></tr><tr><td>Colour</td><td colspan="2">RAL 7032 (grey)</td></tr><tr><td>UL classification</td><td colspan="2">UL 94-V0</td></tr><tr><td>Material group acc. to IEC 60664-1</td><td colspan="2">IIIa (175 ≤ CTI < 400)</td></tr><tr><td>NFF classification</td><td colspan="2">I3, F4</td></tr></table>				Material	PBT (thermoplastics, glass fiber reinforcement 30%)		Colour	RAL 7032 (grey)		UL classification	UL 94-V0		Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)		NFF classification	I3, F4																																													
Material	PBT (thermoplastics, glass fiber reinforcement 30%)																																																													
Colour	RAL 7032 (grey)																																																													
UL classification	UL 94-V0																																																													
Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)																																																													
NFF classification	I3, F4																																																													
Contact material <table><tr><td>Contact material</td><td colspan="2">Copper alloy</td></tr><tr><td>Plating termination zone</td><td>Signal: Sn over Ni</td><td>Power: Sn over Ag over Ni</td></tr><tr><td rowspan="2">Plating contact zone</td><td colspan="2">Signal (solder): female Au over Ni, male Au over PdNi over Ni</td></tr><tr><td colspan="2">Signal (wire wrap, solder lug): Au over Ni</td></tr></table>				Contact material	Copper alloy		Plating termination zone	Signal: Sn over Ni	Power: Sn over Ag over Ni	Plating contact zone	Signal (solder): female Au over Ni, male Au over PdNi over Ni		Signal (wire wrap, solder lug): Au over Ni																																																	
Contact material	Copper alloy																																																													
Plating termination zone	Signal: Sn over Ni	Power: Sn over Ag over Ni																																																												
Plating contact zone	Signal (solder): female Au over Ni, male Au over PdNi over Ni																																																													
	Signal (wire wrap, solder lug): Au over Ni																																																													
Derating diagram acc. to IEC 60512-5 (Current carrying capacity) The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature. Control and test procedures according to DIN IEC 60512-5 Electrical Load [A] 6 5 4 3 2 1 0 20 40 60 80 100 120 °C Electrical Load [A] 15 12 9 6 3 0 20 40 60 80 100 120 °C Temperature [°C]																																																														
HARTING All rights reserved Department EC PD - DE HARTING Electronics GmbH D-32339 Espelkamp Scale 1:1 Free size tol. Created by STORCK Inspected by LEHNERT Standardisation HOFFMANN Date 2016-03-02 State Final Release Title DIN power male connector Type DS Number 09061200001 Doc-Key / ECM-Nr. 100580624/UGD/000/B 500000101167 Rev. B Page 1/1																																																														
1	2	3	4	5	6	7	8																																																							

Mouser Electronics

Authorized Distributor

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

HARTING:

[09061216981](#) [09063316924](#) [09061316924](#) [09061316922](#)