



# RJI MF-PN RJ45plug Cat5, 4p IDC straight



## General information

Design	RJ45 connector for Ethernet communication
Product standard	IEC 600603-7
No. of contacts	8 / (4)
Transmission rate	10 / 100 Mbit/s and 1 / 2.5 / 5 / 10 Gbit/s
	Note: 4-pole version only 10 / 100 Mbit/s
Transmission performance	8-pole versions 0945 151 1570 / 1571
	Category 6A / Class EA up to 500 MHz
	acc. to ISO/IEC 11801:2002, EN 50173-1
Transmission performance	4-pole versions 0945 151 1140 / 1141
	Category 5 / Class D up to 100 MHz
	acc. to ISO/IEC 11801:2002, EN 50173-1
Shielding	Fully shielded, 360° shielding contact
Termination	Field termination IDC with cutting function of the single wires
Degree of protection	IP20
Mating cycles	min. 750
UL certification	under preparation
RoHS - complainant	yes
Lead free	yes

## Cable specification

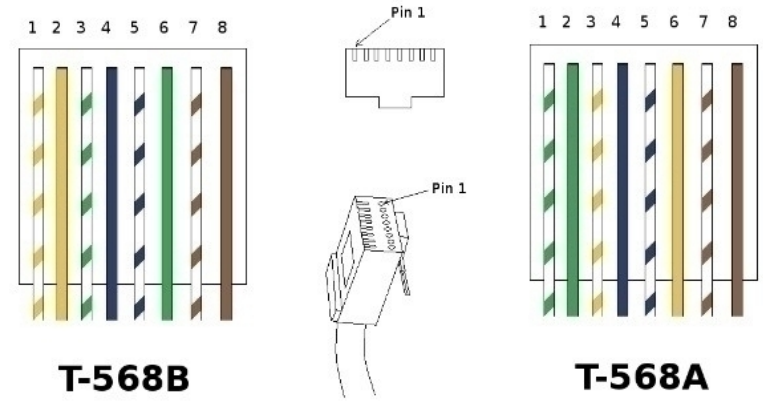
Cable diameter	4,5 to 9 mm
Conductor cross section	AWG 26 to AWG 22 (solid and stranded)
Conductor diameter	0,8 - 1,6 mm

## Electrical specification

Rated current	1,76 A (all pins) values at 0°C / 1,1 A (all pins) values at 55°C
Rated voltage	50 V AC / 60 V DC
Contact Resistance	contact: 20 mΩ max.
	(100 mA max. (DC or 1000 Hz)) shield: 100 mΩ max.
Insulation Resistance	500 MΩ min. (500 V DC)
Voltage Proof	1.000 V DC pin to pin
	1.500 V DC pin to shielding
	(for 1 min. current leakage max. 2 mA)
Mechanical operation with electrical load (IEC 60512 - test 9c)	unmating under electrical load with: 1,2 A / 50 V
	50 cycles for each polarity
Power over Ethernet (PoE)	PoE IEEE 802.3af
	PoE+ IEEE 802.3at
	4PPoE IEEE 802.3bt

## Pin and pair grouping assignment

pin assignment (front view)



Pin No. ix	10BASE-T 100BASE-TX	1/10GBASE-T	EIA/TIA 568A	EIA/TIA 568B	Industrial (PROFINET)
1	TX+	BI_DA+	white/green	white/orange	yellow
2	TX-	BI_DA-	green	orange	orange
3	RX+	BI_DB+	white/orange	white/green	white
4	N.C	BI_DC+	blue	blue	--
5	N.C	BI_DC-	white/blue	white/blue	--
6	RX-	BI_DB-	orange	green	blue
7	N.C	BI_DD+	white/brown	white/brown	--
8	N.C	BI_DD-	brown	brown	--

## Derating diagram acc. to IEC512 (Current carrying capacity)

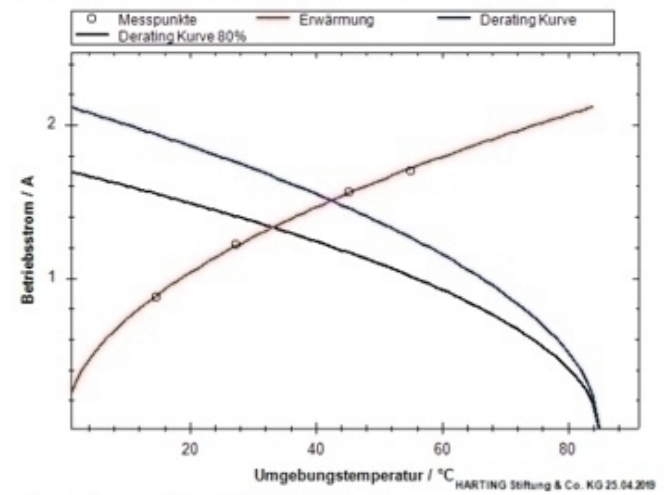
Current-carrying capacity

min. 1,0 A @ 55°C

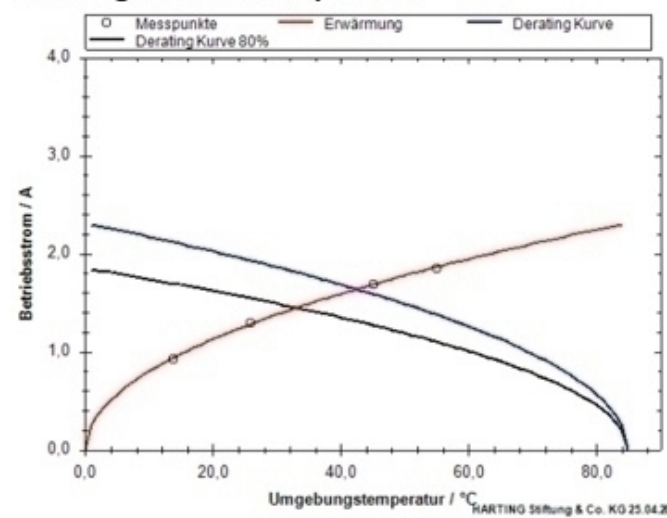
Derating with AWG 26/7 wire:

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 60 512








Derating with AWG 23/1 wire:



Coating	A= mm <sup>2</sup> V= mm <sup>3</sup> m= g Mat.	All Dimensions in mm Original Size DIN A3		Scale 1:1	Free size tol.	Ref.
HARTING		All rights reserved		Created by BALSAN	Inspected by PREOTU	Standardisation HOFFMANN
Department EL PD		Title RJI MF-PN RJ45plug Cat5, 4p IDC straight		Date 2020-07-16	State Final Release	
HARTING Electronics GmbH D-32339 Espelkamp		Type DS	Number 09451511140	Doc-Key / ECM-Nr. 100905128/UGD/000/A 500000176510		Rev. A
						Page 1/3

1	2	3	4	5	6	7	8																																																														
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B	Material specification							
	Isolator material plug							
	Material	Insulation housing	PC (8-pol. yellow / 4-pol. black)					
		Wire Manager	PC (white)					
	Housing material							
	Material	Zink-die-cast (connector housing)						
	Color	silver						
	Plating	Housing: 20 µm Ni						
	Contact							
	Contact material	CuSn6						
C	Plating							
	RJ45 contact mating area: 1,27 µm (50 pinch) Au over Ni							
	IDC contact: 2,54 µm (100 pinch) tin							
	Packaging specification							
	Carton box with one piece							
	Versions:							
	0945 151 1570	RJI MF RJ45 plug Cat6A, 8p IDC straight						
	0945 151 1571	RJI MF RJ45 plug Cat6A, 8p IDC angled						
	0945 151 1140	RJI MF-PN RJ45 plug Cat5, 4p IDC straight						
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HARTING Electronics GmbH D-32339 Espelkamp		Type DS	Number 09451511140				Rev. A Page 3/3

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