



# M12

## RAILWAY CONNECTORS

M12 Cable Connectors for field assembly. 360° EMI/RFI shielding, torsion and vibration proof cable strain relief with our crimp flange technology and machined crimp contacts. The M12 receptacle connectors with the fully shielded housing are pre-assembled. For the secure automatic wave soldering process of the conductors are versions with pre-assembled Wireclip available.

### Technical Features

- Codings: A-Coding with 5 poles or 8 pole  
D-Coding 4 poles
- Custom cable assemblies available
- Compact dimensions
- Assembly with locking against rotation due to flange contour for housing



# M12 - THE CODINGS

A-Coding:  
A5

Actuator-sensor plug  
for DeviceNet, IO  
link and Profibus



A8

Industrial Ethernet,  
Ethernet/ IP for Railway  
Applications



D-Coding:  
D4



**Temperature Range**

-20°C to 85°C

**Current Rating:**

A-5 / D-4 : 4 A

A-8 : 2 A

**Operational Voltage:**

A-5 / B-5 / D-4 : 50 V DC

A-8 : 30 V DC

**Contact Resistance:**

≤ 5 mΩ

**Insulation Resistance:**

≥ 100 MΩ

**Data Transmission**

**Characteristics:**

IEC 11801:2002

**Data Transmission Rate:**

Up to 10Gbit/s

**IP Rating:**

IP67

**Mating Cycles:**

≥ 100 mating cycles

**Standards:**

EN 61373 Class 1

Fire Performance NFF 16101,

16102, EN45545-2



## Materials

Housing	Cu alloy Ni plated
Insulator + contact holder	Thermoplastic
Contact Material	Cu alloy
Contact Plating	Au
Sealings	Elastomer

\*We have solutions for many Cat 5 - 7 cables from other manufacturers. Contact a TE representative for more information

## Ordering Information

Part Number	Type	Code	Cable type	Cable no.
1-2823445-1	Plug	D-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823446-1	Socket	D-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823445-2	Plug	D-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823446-2	Socket	D-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823445-3	Plug	D-code	Cat 5 Radox 8.3mm	H & S 12585489
1-2823446-3	Socket	D-code	Cat 5 Radox 8.3mm	H & S 12585489
1-2823445-4	Plug	D-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823446-4	Socket	D-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823445-5	Plug	D-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823446-5	Socket	D-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823445-6	Plug	D-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823446-6	Socket	D-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823445-7	Plug	D-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823446-7	Socket	D-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823445-8	Plug	D-code	Cat 5 Belden 6.7mm	Belden BE43769
1-2823446-8	Socket	D-code	Cat 5 Belden 6.7mm	Belden BE43769
1-2823445-9	Plug	D-code	Cat 5 Radox 6.6mm	Leoni 303195
1-2823446-9	Socket	D-code	Cat 5 Radox 6.6mm	Leoni 303195
1-2823449-1	Plug	A-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823450-1	Socket	A-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823449-2	Plug	A-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823450-2	Socket	A-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823449-3	Plug	A-code	Cat 5 Radox 8.3mm	H & S 12585489
1-2823450-3	Socket	A-code	Cat 5 Radox 8.3mm	H & S 12585489
1-2823449-4	Plug	A-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823450-4	Socket	A-code	Cat 5 Radox 7.3mm	H & S 12568935
1-2823447-1	Plug	A-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823448-1	Socket	A-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823447-2	Plug	A-code	Cat 7 Betatrans data C-flex 8.8mm	Leoni 302834 - 871433
1-2823448-2	Socket	A-code	Cat 7 Betatrans data C-Flex 8.8mm	Leoni 302834 - 871433
1-2823449-5	Plug	A-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823450-5	Socket	A-code	Cat 5 Radox 6.6mm	H & S 12584038
1-2823447-3	Plug	A-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823448-3	Socket	A-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823447-4	Plug	A-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823448-4	Socket	A-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823447-5	Plug	A-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823448-5	Socket	A-code	Cat 5 Megaline 5.3mm	Leoni 20123 3103012
1-2823447-6	Plug	A-code	Cat 7 Radox 8.2mm	H & S 84124806
1-2823448-6	Socket	A-code	Cat 7 Radox 8.2mm	H & S 84124806

### ABOUT TE CONNECTIVITY

TE Connectivity (NYSE: TEL) is a \$12 billion global technology leader. Our connectivity and sensor solutions are essential in today's increasingly connected world. We collaborate with engineers to transform their concepts into creations - redefining what's possible using intelligent, efficient and high-performing TE products and solutions proven in harsh environments. Our 75,000 people, including 7,300 design engineers, partner with customers in close to 150 countries across a wide range of industries. We believe **EVERY CONNECTION COUNTS** - [www.TE.com](http://www.TE.com).



# M12 90° FLEX

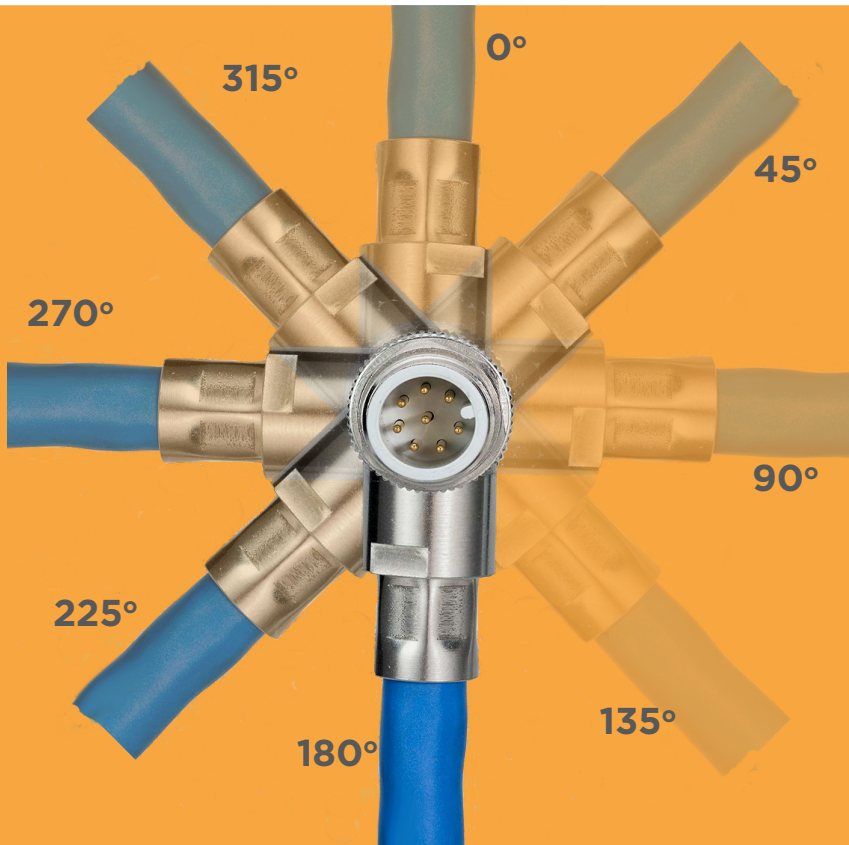
## RECEPTACLE CONNECTORS

The angled M12 Cable Connector 90o Flex is especially developed for the fault-free data transfer in harsh environments and for difficult installation conditions. The connector is specifically suited for harsh conditions due to the crimp termination for the signal contact and for the cable shield. The special design provides the flexibility for the angled cable exit to solve any installation condition.

### Technical Features

- Flexible cable exit 90o
- 8 cable exit options (8 x 45 o) for any installment condition
- Simple selection of the position and lock against rotation of the cable outlet
- Male and female versions
- Coding: A-coding 5 poles and A-Coding 8 poles plus D-Coding 4 poles
- Effective 360o EMI/RFI shielding due to special fully housing and crimp flange/crimp sleeve system
- Torsion - and vibration-proof strain relief
- Easy assembly due to only a few single parts
- Compact dimensions with small diameter
- M12 Locking nut with combined knurled and hexagon combination shape for tightening with defined torque

**Rotatable in  
8 steps (45°)**



**Temperature Range**

-20°C to 70°C

**Current rating:**

D-4: 4A / A-8: 2 A

**Operational Voltage:**

A-5 / D-4: 50 V DC / A-8: 30 V DC

**Contact Resistance:**

≤ 5 mΩ

**Insulation resistance:**

≥ 100 mΩ

**Data transmission characteristics:**

Class D according to IEC 11801:2002

**Data transmission rate:**

10/100 Mbit/s

**IP rating:**

IP67

**Mating Cycles:**

≥ 100 mating cycles

**Standards:**

EN 61373 Class 1  
Fire Performance NFF 16101, 16102

## Materials

Housing	Cu alloy Ni plated
Insulator + contact holder	Thermoplast
Material	Cu alloy
Plating	Au
Sealings	Elastomer