



## Industrial Ethernet – With Power!



### Options for every application!

The Industrial Ethernet is becoming increasingly important in the world of automation technology. In this era of Industry 4.0 or IIOT (Industrial Internet of Things), everything is about the reliability and speed of data transmission. However, to ensure the performance reaches the end device to its full extent, choosing the right connection is a decisive factor. There are a variety of connector sizes and types which offer users a wide range of options: from classic solutions with signal and power plugs through to an innovative

hybrid connection. The most typical choice is the 2 connector (signal + power) solution. There is a clear physical separation between data and power supply and the complexity of the wiring is fairly comprehensible. Separated shells and separated shields – if there is adequate space; everything is fine. However, the trend is for single cable solutions. This is despite 'hybrid' solutions opening up new potential for cost reduction since two cables and connectors become one. Installation expenses are reduced on site and space

requirements are lessened. Summary: numerous connector series feature physical properties which allow end devices to be controlled using a fast Ethernet connection while simultaneously being supplied with power. In the target market, both performance data and the application itself should always be able to be assessed. The environment for the end application and how the user interacts with the plug system are important factors that often take precedence over purely technical aspects.

#### The 2-Plug Solution

##### M 23 RJ 45

Our M 23 RJ 45 connector system features suitable RJ 45 patch cables which are housed in a sturdy nickel plated or optional stainless steel housing. The shielded patch cables are pre-assembled according to the requirements (e.g. Cat5 or Cat 5e) and integrated into the M 23 connector.

##### M 23 Power

When performance is key, the classic M 23 round connector is put into action. With 6, 8, or 9-pole inserts and performance data of 28 A / 630 V, it is capable of covering the majority of applications.

M 23 Power RJ45



##### M 12 Circular Connector

The M12 series has already established itself over the past few years for data transmission via fast Ethernet using so-called 'D-coding'. The 4-pole connector supplies bandwidths of up to 100 MHz (Cat5e).

##### M 12 Power

Our M12 power connector is a new addition to this model size, which is capable of transmitting power up to 16 A/630 V despite being extremely miniaturized using new materials and contact systems. It is EMI capable thanks to the 360° shield feature. Available as K, L, S, and T coding.



M 12 Power

#### 1-Plug Solution

##### M 23 PoE Circular Connector (Power Over Ethernet)

The M 23 PoE connection system comes with the capability to have power and ethernet all in one shell. This connector is robust, safe, compact and is ideal for rough industrial environments. Data packages can be transmitted at up to 10 Gigabytes. With five separate shieldings, cross talking is virtually eliminated. Flame resistant, reliable crimp and solder contacts and vibration safe make this connector the solution to many applications.



M 23 PoE

##### M 23 Hybrid Circular Connector

The new M 23 hybrid (4+4+4) by HUMMEL is the compact all-in-one solution for the transmission of power, industrial Ethernet (IE) and signals. The plug-connector series unites the separate, shielded data transmission on 4 contacts according to CAT.5e with a high processing power on 4 additional power contacts (up to 28 A and 630 V). Data transmission rates of up to 500 MBit/s are possible without any problems. In addition 4 other contacts are available for signal transmission. The assembly time is minimal, the Ethernet element is simply snapped into place.



M 23 Hybrid