
New cable technologies for factory automation

Categories : [Plant Construction, Engineering & Components](#)

Date : 2. December 2018

Leoni, a provider of energy and data management solutions in the automotive sector and other industries, presented innovative cable technologies for factory automation at SPS IPC Drives 2018. A robot-suitable Profinet cable that withstands both extreme torsion and flex cycles will be a focal point.

Leoni's new, Industrial Ethernet Cat 5e Profinet torsion cable withstands both 5 million flex cycles and 5 million torsion cycles, and is therefore ideally suited to applications where extreme, constant stress is the order of the day.

The cable shown at the SPS IPC Drives trade fair has a halogen-free outer jacket made of highly flexible TPU, which excels not only because of its resistance to abrasion, but also its very good resistance to grease, oil and lubricants. Thanks to flame-retardant additives, the jacket also fulfils the IEC 60332-1-2 fire protection requirements. The cable furthermore has UL Style 21198 approval and meets all requirements under the Profinet standard.

180-minute circuit integrity in the event of fire

There is constant demand for cables used in such safety-related areas as shipbuilding that are capable of transmitting all necessary power and signal values in the event of a fire. Leoni has developed various Cat 6, Cat 6A and Cat 7 cables for this purpose, which maintain the data characteristics when exposed to fire for at least 180 minutes.

The company has also developed cables for potentially explosive atmospheres that fulfil the requirements of the applicable standards. Here, the Company provides Ethernet, Profibus, CAN bus and hybrid cables that feature excellent data transmission properties. In the event of fire, they protect persons and property by reducing the possible gas flow through the cable.

Wide-ranging portfolio of fire prevention cables

Alongside such varying industrial cables as Profibus and Profinet with CPR approval (in accordance with the EU 305/2011 Construction Products Regulation), Leoni has now developed a KNX/EIB (European Installation Bus) cable that is used in such building automation applications as the control of blinds, to regulate heating and for alarm systems. This cable guarantees first-rate transmission properties for use in building automation and is classified under the highest B2_{ca} fire reaction class. The CPR cable consists of a halogen-free FRNC jacket, which inhibits fire and prevents smoke from developing; nor does it have any corrosive components.

The product portfolio to be displayed on Leoni's fair stand will furthermore include intelligent data and power cables for industrial-robot drag chains and dresspacks, which – thanks to their LEONiQ key technology – make it possible to pin-point critical spots in the cable in good time. The Company will also display hybrid cables that combine complex supply and control tasks and thereby go far beyond copper-based transmission, as well as fiber optic solutions for industrial applications.