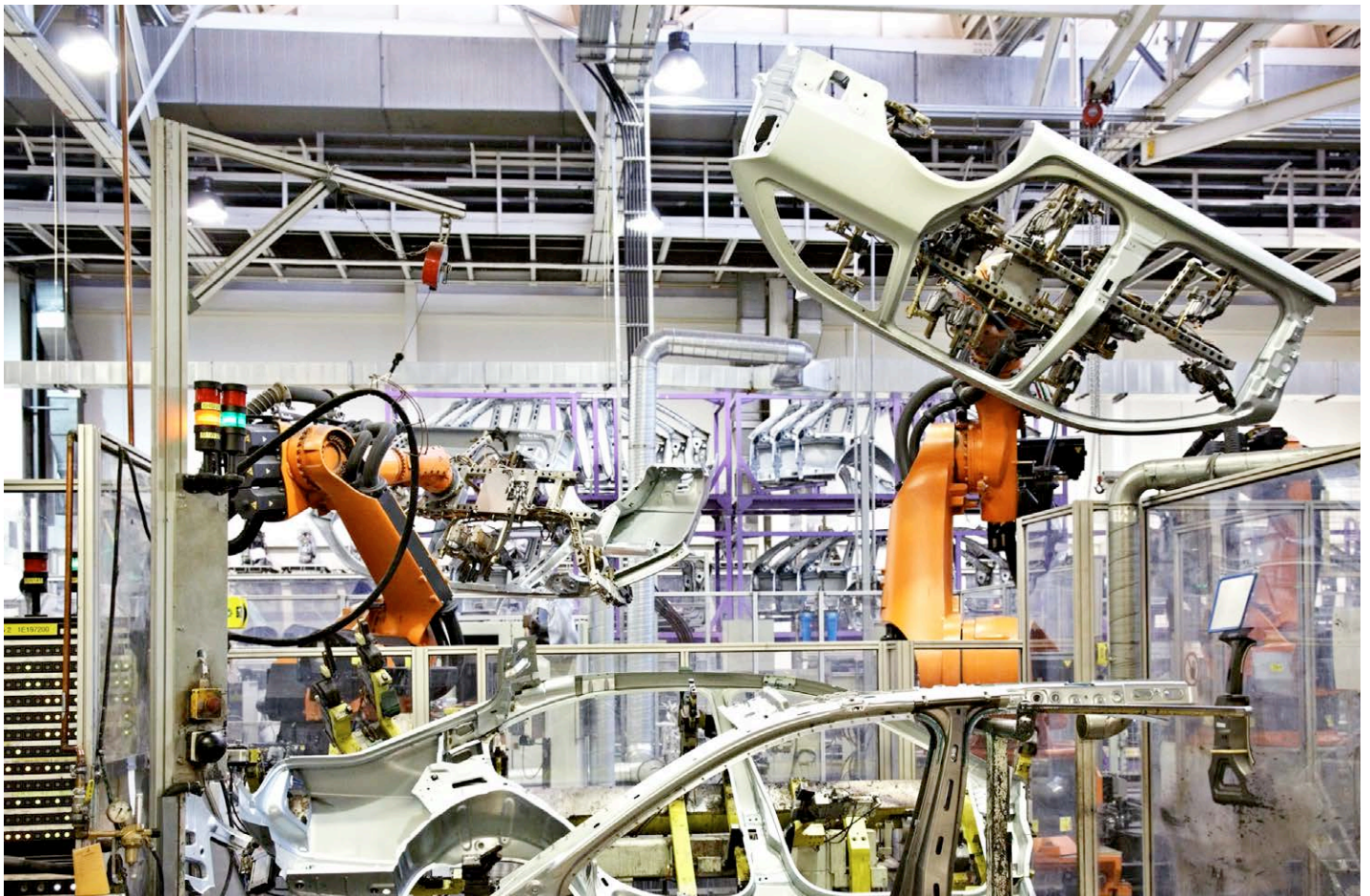


Connection Technology for Robotic Applications

PUR-R cables for extreme
mechanical stress

Application

Robots are used in almost all industrial sectors where work is too difficult, dangerous, or harmful for humans. In the course of its life, each robot performs millions of repetitive working processes and moves the largest of loads. Ever more complicated production lines are increasing the complexity of the movement sequences for individual robots, resulting in extreme bending and rotating movements. These movements increase the demands placed on the connection technology that powers the robot and ensures data is exchanged.



Goal

The performance of each individual component is crucial in production processes with a high level of automation. A reliable power supply and guaranteed exchange of data play a particularly important role. The connection technology that is used must be designed to meet the specific demands of robotic applications. It must be able to withstand extreme mechanical stress and often needs to demonstrate excellent resistance to high temperatures, oils, and chemicals. The connection technology must be adapted to the generally very limited space and the specifics of individual applications. Custom manufacturing is essential.

Solution

The specially adapted connectivity portfolio for robotic applications offers highly flexible cables for drag chain applications and torsion applications. Durable PUR-R cables able to withstand temperatures from $-25\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$ are used. In drag cables, this solution will last for at least ten million cycles and can be twisted by $\pm 360^{\circ}$ per meter over ten million times. These cables can be manufactured individually and are available with a degree of protection of up to IP69. Their UL approval means they can be used in the USA.

Benefits

Using the extremely robust PUR-R cables from Pepperl+Fuchs significantly reduces the risk of machine and equipment failure, increasing process security and making it possible to sustainably reduce operating costs.



At a glance:

- High durability of ten million cycles in drag chains and able to withstand twisting by $\pm 360^{\circ}$ per meter ten million times
- UL approval for use in the USA
- Able to withstand temperatures from $-25\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$
- Halogen-free PUR sheath for extreme robustness
- Degree of protection of up to IP69
- Flexibility through custom manufacturing
- Standard lengths are always in stock

More information can be found at:

www.pepperl-fuchs.com/connectivity