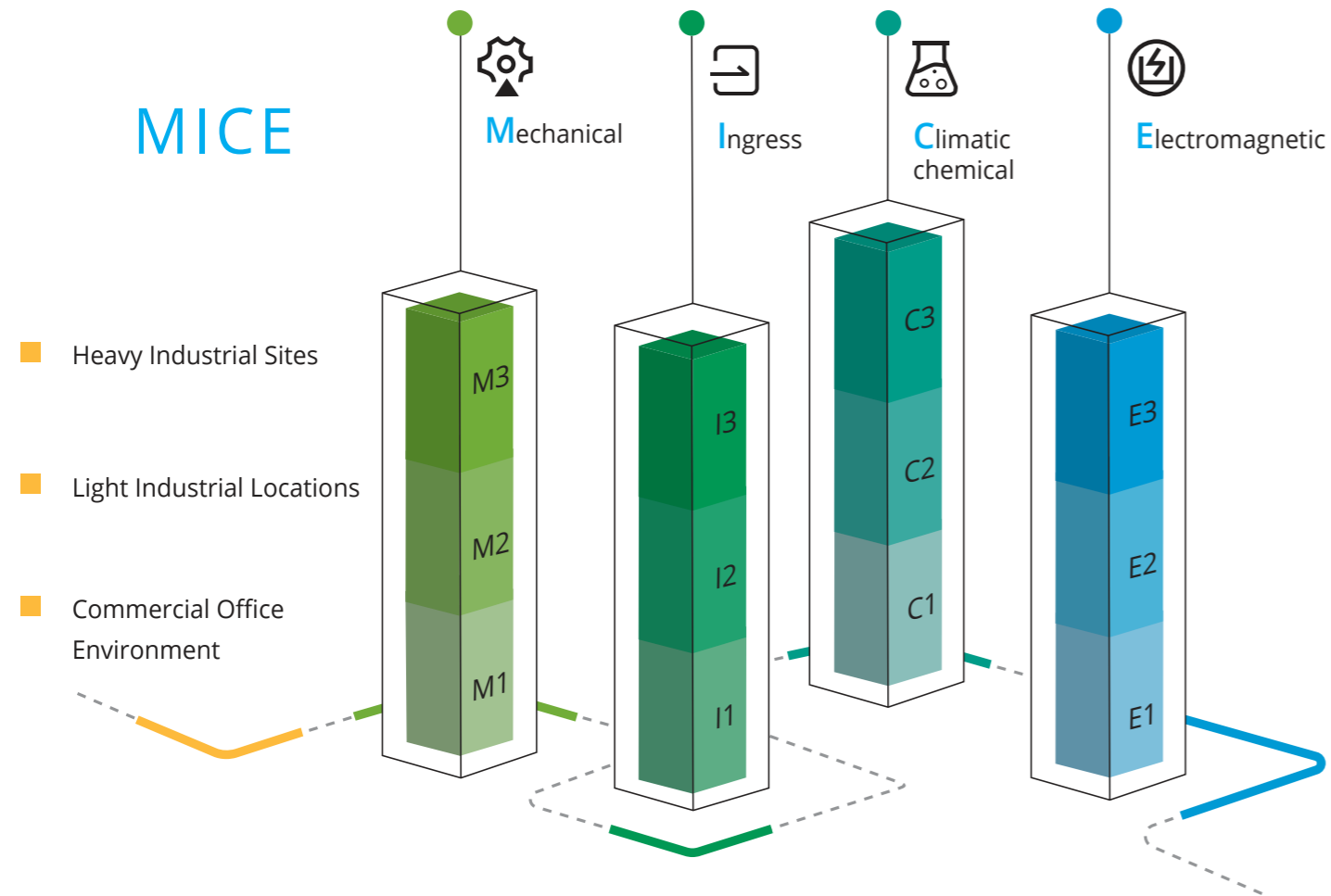


**Industrial image processing**

Machine vision is a technology that allows machines to capture, process and interpret images or videos to gain information about their environment. It is often used in industrial applications to perform quality control, inspect products, recognise objects and more. Machine vision systems use cameras, lighting, vision software and algorithms to perform tasks that normally require human intelligence, such as detecting defects on a production line or identifying parts in an assembly line.

Industrial environments are often complex and harsh, placing special demands on the characteristics and performance of cabling. This graphic shows how high the respective requirements are in different environments:



**Unsere Leistungen und Produkte**

We understand the key conditions of MICE in a wide range of industrial environments. For the assembly of vision cables, we offer special solutions that meet even the most difficult challenges.

On the following pages you will find a selection of interesting solutions that we can realise for you.

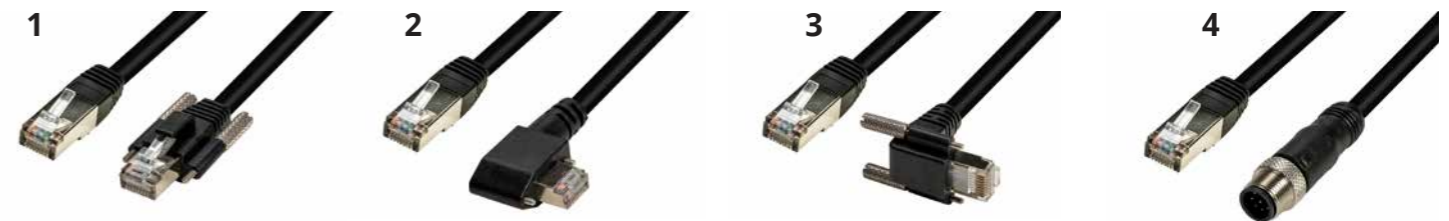


**Application**

GigE is designed for **industrial image processing systems** and **industrial cameras** to connect PCs and cameras with Ethernet support. The Ethernet interface is standard in almost all PC hardware and is used for data transmission over long distance.

**GigE Ethernet Series**

High transmission rate:	10G Ethernet
Stable connection and data transmission:	Screw/thread locking
Excellent shielding:	EMC-proof
Flexible cable material:	Drag-chain suitable
Very high resilience:	Oil and cold resistant, flame retardant
High water and dust resistance:	M12 male corresponds to IP65 or IP67



**GigE Ethernet (UltraFlex) Cables**

		Lengths
1	RJ45 male 180° / RJ45 male 180° with screw locking	3.0 / 5.0 / 10.0 m
2	RJ45 male 180° / RJ45 male 90°/90° with screw locking	3.0 / 5.0 / 10.0 m
3	RJ45 male 180° / RJ45 male 90° with screw locking	3.0 / 5.0 / 10.0 m
4	RJ45 male 180° / M12-A male 8 pin with screw locking	3.0 / 5.0 / 10.0 m

\* Individual lengths possible according to customer requirements

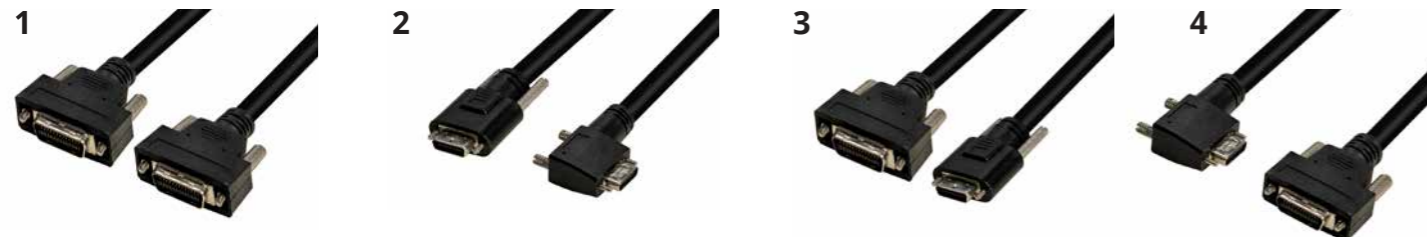




**Application**

The Camera Link series connects **Camera Link interface cameras** and **image capture boards**. A traditional mature and reliable camera interface can realise a one-cable solution (PoCL solution for camera supply).

Camera Link Series	
Stable low-loss data transmission:	Robust design and quality control
Stable connection:	High-quality, solidly built MDR / SDR connectors
Flexible cable material:	Drag-chain suitable
Very high resilience:	Oil and cold resistant, flame retardant



Camera Link (UltraFlex) Kabel		Lengths
1	MDR male 180°/ MDR male 180° with screw locking (both sides)	3.0 / 5.0 m
2	SDR male 180°/ SDR male 90° with screw locking (both sides)	3.0 / 5.0 m
3	MDR male 180°/ SDR male 180° with screw locking (both sides)	3.0 / 5.0 m
4	SDR male 90°/ MDR male 180° with screw locking (both sides)	3.0 / 5.0 m

\* Individual lengths possible according to customer requirements



**Application**

The USB 3.1 Gen 1 cables connect PCs with USB3.0 interface and cameras with sophisticated interface solution. Data is transferred with high speed and low time delay.

**Suitable for short transmission distance.**

USB Series	
High transmission rate:	5 Gbps
Stable data transmission:	Secure screw locking
Excellent shielding:	EMC-proof
Flexible cable material:	Drag-chain suitable
Very high resilience:	Oil and cold resistant, flame retardant



USB (UltraFlex) Cables		Lengths
1	USB-A male 180°/ Micro-B male 180° with screw locking	3.0 / 5.0 m
2	USB-A male 180°/ Micro-B male 180° with screw locking (both sides)	3.0 / 5.0 m
3	USB-B male 180°/ Micro-B male 180° with screw locking	3.0 / 5.0 m

\* Individual lengths possible according to customer requirement





**Application**

The CoaXPress cables for the new generation of **high-speed CXP-6 and CXP-12 cameras** support 6.25 and 12.5 Gbps respectively and offer the great advantage of ultra-high bandwidth and transmission rate.

**They are particularly suitable for long transmission distances.**

CoaXPress Series	
High transmission rate:	CXP-6: 6,25 Gbps; CXP-12: 12,5 Gbps
Compatible with many interface:	BNC / HD-BNC / DIN
Thin flexible cable:	Coaxial structure, low bending radius
Excellent shielding:	EMC-proof
Very high resilience:	Oil and cold resistant, flame retardant



CoaXPress (UltraFlex) Serie		Lengths
1	DIN 1.0 male / BNC CXP male	3.0 / 5.0 / 10.0 m
2	DIN 1.0 male / HD-BNC CXP male	3.0 / 5.0 m
3	HD-BNC male / HD-BNC CXP male	3.0 / 5.0 m

\* Individual lengths possible according to customer requirements



**Application**

The HR10A Camera power cables are designed for **industrial image processing systems** and **industrial cameras**. The cables provide power and control signals for the camera.

HR10A Camera Power Cables	
Excellent shielding:	EMC-proof
Flexible cable material:	Drag-chain suitable
Very high resilience:	Oil and cold resistant, flame retardant
High water and dust resistance:	M12 male corresponds to IP65 or IP67



HR10A (UltraFlex) Camera Power Cables		Lengths
1	HR10A male / Open End	3.0 / 5.0 / 10.0 m
2	HR10A male 90° / Open End	3.0 / 5.0 / 10.0 m

\* Individual lengths possible according to customer requirements







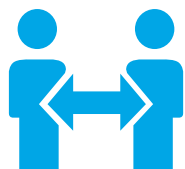
### FAMILY-RUN & MEDIUM-SIZED

We are fast and flexible in decision-making, personally available and see the business as a long-term partnership.



### CUSTOMER-SPECIFIC

We fulfil wishes: With over 1000 tools for OEM and 10,000 technical sketches, we are able to offer solid customised solutions.



### STRONG NETWORK

We have known our partners for a long time and value them. We have access to original connectors from all well-known manufacturers or, on request, low-priced compatible products with guaranteed stable quality.



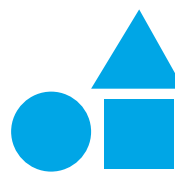
### SOLUTION-ORIENTED

With established and structured processes and personal service we find the best technical and economic solution for your request.



### 100% QUALITY-TESTED

All our cable assemblies are 100% electrically tested before delivery and the production facilities can be audited at any time.



### ALWAYS FLEXIBLE

Flexibility from small to large series through production facilities in Asia and Eastern Europe.

