

- ▲ Collecting of signals
- **Wiring of valve blocks**
- ▶ CAN wiring and distribution

# **MOBILE APPLICATIONS**

Murrelektronik is your partner







# **REVOLUTIONIZE THE INSTALLATION OF MOBILE MACHINES**



### THE MARKET REQUIREMENTS

- Faster production times
- Prevent installation errors
- Flexible and expandable wiring harnesses
- Easy repair

### WHAT MURRELEKTRONIK OFFERS

- Pre-wired cordsets and distribution boxes
- Different coding for foolproof installations
- Modular wiring solutions
- Individually replaceable components





## SEALED AND DURABLE

Dried out fields where agricultural equipment blows up dust. Icy streets that are cleared by snow plows. Soggy forest floors where wood harvesters fight slime and mud.

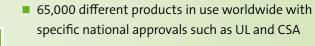
Utility and special-purpose vehicles have to perform reliably for many years under the most demanding conditions. They need to have a reasonable purchase price and can be repaired or replaced quickly in the event of a failure.

Murrelektronik provides components that do exactly that. With our products it's possible to implement installation concepts that can be attached to the machines rapidly, and where damaged cables can be replaced with minimum effort.

This means that Murrelektronik solutions are excellent alternatives to wiring harnesses. Manufacturers can produce more machines in the same time, machine users benefit from shorter service times and maximized productivity.

# FACTS ABOUT MURRELEKTRONIK

- Worldwide presence with 26 branches and many partners
- 2 million items in stock ensure fast delivery



## LARGE VARIETY OF SOLUTION OPTIONS FOR THE WIRING OF SENSORS AND ACTUATORS

When sensors or actuators (such as hydraulic valves, temperature sensors, pressure transmitters, and rotary encoders) have to be connected to a control unit, Murrelektronik distribution boxes are the ideal solution. They can be used to reduce existing wiring harnesses or, replace them altogether. Either way, the installation becomes much easier. Murrelektronik cordsets are robust and sealed, have been tested many times, and have proven their success in practice over many years. Customers can specify the connectors, cable materials, and lengths and in many cases can be ordered in single pieces.



- All metal components made of stainless steel
- Highly resistant to oils, lubricants, manure, and UV radiation
- protection class IP66K/IP68

# SIGNAL DISTRIBUTION USING MVP XTREME AND XTREME DB

With passive distribution boxes and the right cables, a modular system can be easily and conveniently installed in mobile machines. The use of pre-wired cordsets prevents connectors from being connected incorrectly. Ultra-bright LEDs display the signal status, even in direct sunlight. Can be cleaned using high-pressure water jet.



- Passive distribution box with M12 or 4-pin Deutsch<sup>®</sup> connectors
- Temperature range -40 C to +85 °C
- The alternative to bulky and non-sealed terminal boxes

### **CAN-BASED WIRING AND DISTRIBUTION**

In machine wiring with bus components. It's important to prevent installation errors and stay within the physical limits. Murrelektronik's pre-wired, pretested, and perfectly shielded cordsets and distribution boxes are designed to prevent these errors. End customers will also benefit from this high-quality installation by having the shortest possible downtimes and repair times.



- Professional CAN wiring
- IP65/67 protection class
- Perfectly shielded

### **CUSTOMIZED SOLUTIONS**

If you don't want to rely on your do-it-yourself solution, Murrelektronik designs customized solutions that fit to your system perfectly. Murrelektronik creates professionally manufactured solutions using its many decades of acquired know-how!

Section 2 customized-connectors@murrelektronik.de



- Professional wiring harnesses with molded and fully potted connectors
- Distribution boxes for special applications (for example, weight sensors and lighting technology)
- Special solutions for individual challenges

# CONNECTORS FOR RELIABLE AND LONG-LASTING INSTALLATIONS





### M12 molded

<ol> <li>Stainless steel hexagonal nut with large surface area</li> </ol>
<ul> <li>Special profile gasket for axial and radial seal or Viton</li> <li>O-ring with extended temperature range for the highest demands in sealing</li> </ul>
6 Guaranteed seal through injection molding
4 Complete molding guarantees no ingress of media and longer service life
6 Reliable adhesion of injection molding to the line, integrated corrugated tube connection
6 Minimal dimensions for light weight and best possible handling
M12 field-wireable
<ol> <li>Zinc pressure die casting, low resistance to salts</li> </ol>
2 Simple NBR O-ring, long-lasting seal only if contact pressure is correct, poor media resistance
Seal depends on the condensed water
Housing is not molded, accumulation of condensed water possible, risk of terminal corrosion, leads to loose contacts or complete failure

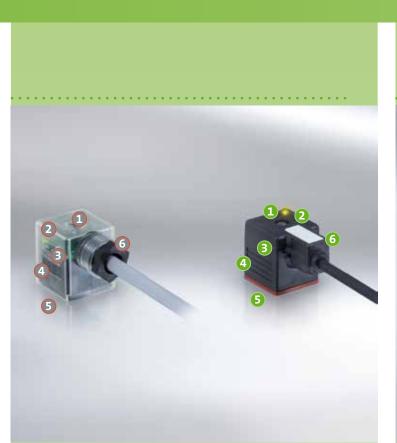
- Shielding material can soften over time and creep into the screw fitting, in which case a seal is no longer tight
- 6 Large connector diameter makes installation difficult

### MDC encapsulated

- Ergonomically improved locking lever
- 2 Double sealing action through multi-gasket and potting compound
- Welded hard plastic for maximum robustness of the cable outlet, wires well protected in potting compound, integrated corrugated tube connection
- Molded cable with jacket, medium cannot seep between jacket and wire, jacket provides stability, tension on the cable absorbed by the housing

### Deutsch<sup>®</sup> pre-assemble

- Flat locking lever has poor ergonomic design
- 2 Multi-gasket is no longer ideal when two different wire cross sections are used
- 3 Stripped cable jacket offers little protection against mechanical damage and UV-radiation
- Open cable jacket can conduct water or oil into a housing or control through capillary effect, no bend protection, tension on cable has a direct effect on the contact





# MSUD encapsulated Captive, stainless steel screw UV-resistant and aging-resistant housing, easily visible LED, integrated suppression on request Ready to use, pre-wired, and tested Fully potted ensures seal and therefore, a long service life Capitve silicone gasket with a distinct color, for ultimate temperature and media resistance Cable cannot be disconnected from the housing, integrated label plates

### Valve plug self-connecting

1	Losable, galvanized steel screws, low resistance to salts and corrosion
2	Transparent housing, not UV-resistant, LEDs difficult to see
3	Many individual parts, much time needed for connection and assembly
4	Housing is not potted, accumulation of condensed water possible, risk of terminal corrosion, leading to loose con- tacts or complete failure
5	Losable, color-neutral standard gasket, easy to forget during installation
6	Screw fitting has to be designed for the cable diameter, no possibility for labeling

# MSC molded Molded cable jacket provides very good seal Wires well protected in injection molding, integrated corrugated tube connection Molded cable jacket, medium cannot seep between jacket and wires Jacket provides stability, tension on the cable is absorbed by the housing SuperSeal hand-fabricated Seal varies depending on wire diameter, risk of mix-ups

- 2 Visible wire insulation offers low protection against mechanical damage and UV radiation
- Open cable jacket can conduct water or oil into a housing or control through capillary effect

No bend protection, tension on cable has a direct effect on the contact



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