

## Many plugs, little installation space?

### Remote interface box offers interface variety even for ultra-compact 36 mm encoders.

In standard applications, interface cables are routed directly to the encoder. For encoders with Industrial Ethernet and an additional direct interface, this can be up to four cables (network with forwarding, power supply, etc.). If space is very tight at the installation site, this can present a challenge. It is not uncommon for the union nuts of several M12 connectors to have to be tightened by hand or with special tools, which requires that there is sufficient room to move on the side with the connectors. With the freedom of choice for axial and radial connection fields in TR encoders, some of the situations can be mitigated, but sometimes there is simply no space for standardized bus cabling directly on the shaft, motor or measuring wheel. TR Electronic now offers a solution for this with the "Compact Interface Box" CIB2X: the encoder and interface box are mounted separately from each other and connected via a single cable. The interface box is therefore located where the required cables have sufficient space for routing and installation. As the encoders only require one cable, the installation space can be much more compact.

Several use cases are planned:

\_ If there is not enough space on site to lay the bus and supply cable to a 582, 802 or 1102 series encoder or if a connection is not possible due to lack of access. The encoder only requires one cable; connecting cables up to 15 m long are available as standard between the encoder and CIB2X.

\_ Explosion-proof atmosphere on the encoder. Certified protective housings are usually used for ATEX zones 1/21. However, the protective function requires special cable glands. Standardized M12 connectors cannot be used for this purpose. The CIB2X is installed in a safe area and the interface is connected there using standard connectors without ATEX requirements. The AEV70M rotary encoder is pre-wired in the Zone 1/21 protective housing; only one cable leads to the CIB2X.

\_ Aggressive environments at the encoder. If the place of use requires special housing materials, e.g. stainless steel, this also applies to the signal cables. Not all sheath and connector materials are available pre-assembled. The connection to the device itself also requires special attention. Particularly when the stainless steel housing option for 58 mm encoders with Industrial Ethernet cannot be used, the use of the CIB2X eases the challenges: Only the encoder itself and the CIB2X connection cable are exposed to the aggressive environment.

\_ With CIB2X, TR Electronic also implements the wide range of interfaces available with the 582 series encoders for the ultra-compact C\_\_362

encoders. Ultimately, the encoder housing is simply too small to accommodate the connections, e.g. for Industrial Ethernet. With the Compact Interface Box CIB2X, the encoder diameter remains at 36 mm and the larger connection areas for network, power supply and, if necessary, additional interface are mounted in a suitable, remote location.



When space directly on the encoder is rare: Remote interface box CIB2X from TR Electronic for encoders from 36mm to Atex and heavy duty.

Product information CIB2X [www.tr-electronic.de/f/TR-V-PR-GB-0046](http://www.tr-electronic.de/f/TR-V-PR-GB-0046)