

Success story:

Always on course

Tankers navigate using industrial interfaces

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For tankers of the Norwegian Knutsen Group perfect navigation is an absolute must. Rugged interfaces are required in order to reliably combine the navigation data from a variety of systems. The Active Communication company has integrated a dozen W&T industrial interfaces each on over 100 vessels.



Giant tankers navigate across the ocean with the help of different systems. ©Malte Kopfer

Connecting ports and systems

Whether containers, packages or tanks: Tankers bring freight safely from port to port. The data required for navigation are provided by individual sensors in various transmission formats. Regardless of which format is used - the data must still be reliably sent from one system to another. Industrial interfaces (also called interface converters) are used to ensure that the various systems can even communicate with each other: they provide for secure data exchange.

Solid transmission paths for important signals

Transporting freight reliably from a port requires not only the experience and care of the captain. The success of the company and not least the safety of freight and crew depends also on stable communication channels.

In the case of the navigation systems the industrial interfaces from W&T connect RS232 interfaces to RS485 buses and RS422 components. The integrated galvanic isolation also ensures faultless transmission. Thanks to this proven industry technology the ships stay on course.

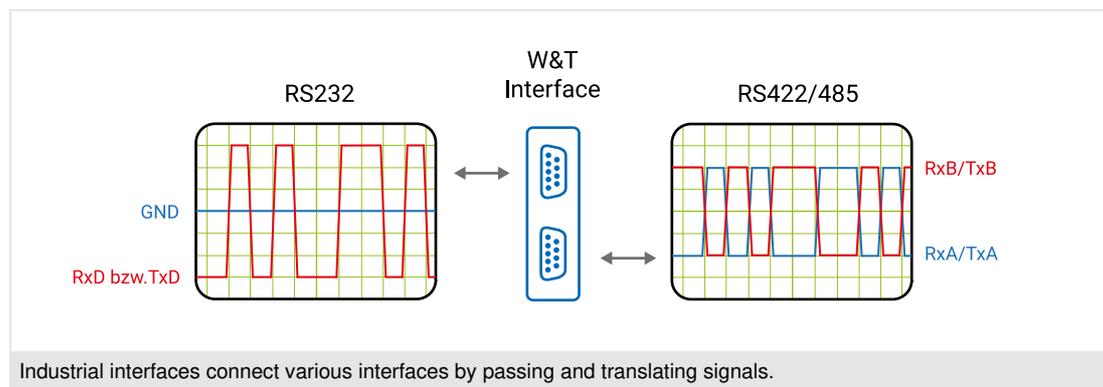


The interfaces installed on DIN rails connect RS232 and RS422 interfaces.

Going a little deeper: RS232 and RS422/485

Communication in ocean travel - something that used to take place in Morse code. Here a sequence of light on/light off was sent for each letter. Data communication today works quite similarly. Now however the data are encoded as electrical signal changes. There are various electrical transmission procedures for this type of serial data transmission. Specifically: RS232 and RS422 resp. RS485.

RS232 is bipolar: there is a data line for each signal and a common reference ground for all signals. Analogous to Morse code one could say: "Light off" corresponds to a sent signal of -12V and "Light on" to +12V on the data line. RS422/RS485 on the other hand is a differential process. Here there are two data lines (A and B) for each signal which change their polarity depending on whether "Light on" or "Light off".



Industrial interfaces connect various interfaces by passing and translating signals.

Although many sensors and devices are equipped with RS232 interfaces, transmission using RS422/485 is significantly more reliable and robust, especially over great distances. W&T industrial interfaces connect - on land and on sea!

Data Delivery & Automation Solutions in Scandinavia

The Active Communication company was founded in 1992 and has since 2002 been offering W&T products in Denmark, Norway, Sweden and Iceland. They value partnering relationships with their customers; in addition to component integration they also provide comprehensive support. Active Communication has had only good experiences with W&T industrial interfaces:

" We only have good feedback on this product. I do not think we have ever swapped this product because it did not work. " [Jens Brogaard, CEO Active Communication]

More links

#86201



RS232 <-> RS422/RS485 Industry

In DIN rail housing with 1kV isolation

[Sample order](#) >>

#86203



RS232 <-> RS422/RS485 Industry

With overvoltage protection and 1kV isolation

[Sample order](#) >>

Support

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