

FW50 BiDi Transmission Path

Mutual safeguarding between tandem controls



The BiDi transmission path is, for example, an advantageous solution for the bidirectional transmission of limit switches to safeguard the joint control of cranes operating in a tandem group.

Information are exchanged via one shared frequency channel only to prevent an unnecessary blocking of the frequency channels.

For this purpose TELETEC utilizes the proven and recognized half-duplex procedure (HDX).

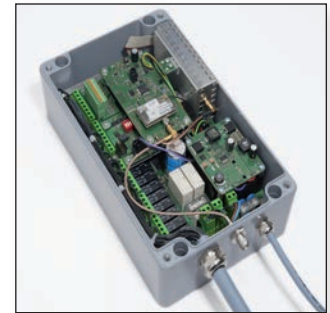
The transceiver distinguishes itself by its extraordinarily compact construction and offers the necessary components to meet the criteria of category 3 PL d according to EN ISO 13849-1:2006 (additionally two separated emergency stop circuits are transmitted actively and monitored internally).



FW50 BiDi Transmission Path

Technical data

General data (transceiver)	
Supply voltage	48 VAC, 110 VAC, 230 VAC, 50/60 Hz, 12 to 24 VDC
Power consumption	≤ 25 VA
Frequency range	433.075 to 434.750 MHz / 869.725 to 869.975 MHz
Operational temperature	-20 to +60 °C
Protection class	IP65
Dimensions	160 x 260 x 90 mm ³
Weight	3.6 kg



Transceiver

Transmitter	
Transmitting power	≤ 10 mW
Operating range	up to 300 m
Input contacts	16 potential-free input contacts with common supply (electrically-isolated inputs)
Emergency stop contacts	2 potential-free input contacts with internal monitoring of antivalence
Field bus (optional)	Profibus-DP, CAN (CAN-Open)

- No additional radio channel is needed to mutually transmit the limit switches
- The dual-channel transmission and permanent internal monitoring of antivalence provide a secured transmission of the additional emergency stop contacts
- Internal diagnosis interfaces for the service
- Optional Windows based diagnosis software for parameter adjustment and inspection

Receiver	
Output relay	16 (3 A, 250 VAC)
Emergency stop relay	2 separated circuits with one potential-free contact
Field bus (optional)	Profibus-DP, CAN (CAN-Open), RS485
RF sensitivity	-114 dBm for BER ≤ 10 ⁻⁷



Number of potential-free contacts. Each of them can be imported to the transmitter and are available as NO/NC contacts at the receiver



Receiving and output of process data (at the transmitter and the receiver) via field bus coupling (Profibus, CAN, RS485)

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