



## Remotus T-Rx 100

Remotus T-Rx is Åkerströms Björbo's mobile platform for radio remote control of mobile applications. The Remotus T-Rx receiver line is modular and flexible—so it can be customized for your specific needs. The line consists of three different models of receiver. T-Rx 100 is a CANopen based receiver for control via existing PLCs.

The Remotus T-Rx 100 receiver is designed to control all mobile applications with up to 8 analogue functions. The system can also be used to equip wheel loaders, excavators, mobile cranes etc. with radio remote control. The system is adapted for tolerating tough conditions such as drastic temperature differences, dust, vibrations, oil, and dampness.

### High security.

The Remotus T-Rx 100 receiver has a shock and water resistant aluminum housing. It has double security outputs and transmitted radio messages are very secure because the system runs a cyclic 32 bits redundancy check. The receiver has double microprocessors that monitor each other. Each message is checked before it is accepted. Command errors don't occur and security is increased. Self diagnostic testing is carried out during operation. The system is approved according to the safety standard EN ISO 13849-1, Cat 3 PLd.

### Reliable radio transmission and duplex.

The radio transmission in within the system is made insensitive to interference. A continuous frequency hopping technology is employed. According to a predetermined pattern the transmitter and receiver automatically synchronize with each other and rapidly jump between a large number of set frequencies. Frequency management is completely automated and requires no set-up. The receiver has duplex function which enables data transmission back to the transmitter (operator).

### Cable control optional.

In some cases where it is not permitted to control by radio frequency or where there is no charged battery available, the control system can use a cable between the (joystick) transmitter and receiver. If cable control is used the transmitter is power supplied by the receiver.

#### Recommended transmitters:

T-Rx 28J B - joystick/push button transmitter  
T-Rx 12B - push button transmitter  
T-Rx 100J/P, 200P, 300J, and 500J - joystick/paddle transmitter

### TECHNICAL FACTS

**Operating voltage:**  
10-32 V DC, negative grounded system  
**Current consumption:**  
100 mA (without external load at 12 V)  
**Operating frequency:**  
Bluetooth, 433 MHz, (868 MHz), (915 MHz)  
**Process monitoring:** 2 CPU design, 2 solid state safety switches (RCSS)  
**Housing:** Aluminum, grey/black  
**Size:** 152\*141\*36 mm  
**Protection class:** IP67  
**Weight:** 0,65 kg  
**Operating temperature:** -25°C + 70°C  
**Storage temperature:** -40°C - +85°C

#### OUTPUTS:

RCSS: 2 outputs. 2 Amp source

#### CANopen

CAN interface: 2.0 B, ISO 11898  
Baud rate:  
50 kbits/s...1 Mbits/s (default 125 kbits/s)  
CANopen Node-ID: 1..126 (default 32)  
CANopen Com-profil: CiA DS 301 Version 4  
CANopen Dev-profil: CiA 401 Generic I/O module  
LSS support: Remote node-ID och baud rate  
CAN termination: On/Off

#### CONNECTIONS:

External antenna: 1xSMA (2xSMA option)  
Power supply and RCSS: M12 4-pin male  
CAN: M12 5-pin male  
Cable control: M12 8-pin female