

# TC 200

Industrial Radio  
Remote Control  
From Cattron-Theimeg, Inc.



## TC200 Mini

Current requirements for industrial radio remote control are very diverse. It's important that users are provided with standard as well as customized products that fit their application. The TC 200 radio control family of Cattron-Theimeg features a modular design. This module system enables all available components to be combined to form customized solutions.

**Not available in USA or Canada**

## TC200 Easy

- Frequency range: 410 - 490 MHz (70cm band)
- Approval: National and international approvals
- Modulation: FM (Frequency Modulation)
- Signal coding: PPM
- Transmission speed: 4800 Baud on the radio circuit
- Typical response time: 70 ms (at 4800 Hz)
- Hamming distance:  $d \geq 6$  (message check)
- Transmission power: 10 mW - 500mW depending on application
- Receiver sensitivity:  $\leq 1\mu\text{V}$  @ 10 dB (S/(S+N+D))
- Digital electronics: Redundant dual microprocessor system in the receiver
- Operating temperature: -20°C to +60°C
- Receiver relays: Output relays: max. 250V AC/5A (ohmic load)
- Protection type: Transmitter IP 65, receiver IP 65
- Receiver operating voltage: 48 - 230V AC, 50/60 Hz or 12 - 48V DC

**CATTRON**  
*theimeg*<sup>™</sup>

# TC 200 Technical Specifications

## TC 200 transmitter

The transmitter housings of the TC 200 Mini and TC 200 Easy differ only in terms of the available user interface. Both transmitters are able to send digital as well as proportional commands. The robust transmitters feature ergonomic design and are capable of being used in a wide range of applications. Dual micro processor technology ensures high signal transmission integrity. Diverse redundancy of software and hardware produce maximum safety for remote control operation. Additional safety features such as tilt monitoring can also be provided as an option.

The basic unit comes with one two-direction and one four-direction joystick for three two- to four-stage drives, three push buttons and a three-position selector switch. This covers the normal range of commands for the standard application. Analog drives can also be controlled as an option. Depending on the particular version, the light-weight transmitter weighs approx. 1.6 kg.

The TC 200 transmitters are supplied with standard cushioned belt and plug-in recharger unit. A processor-controlled recharger unit is optionally available for longer battery life and a rapid recharging cycle. An Ergonomic Vest Harness is available also as an option.

- 1 four-direction joystick for 2 drives (2 to 4-stages possible) alternatively analog signal
- 1 two-direction joystick for 1 drive (2 to 4 stages possible)
- Control of up to 8 proportional drives
- 3-way selector switch
- 2 push buttons
- 1 side push button
- Key switch (On/Off)
- Mushroom head button, rotary unlocking, for Stop function
- integrated antenna
- PC interface for easy configuration and diagnosis
- Synthesizer HF part (frequency setting via DIP switches)
- LED for status and error display
- Transmitted address monitored by an independent monitoring unit
- Replacement battery with 0.6Ah (optional 1.6Ah)
- Weight: Approx. 1.6 kg
- Dimensions (WxHxD) MINI II: 215 x 136 x 147 mm  
EC: 264 x 136 x 147 mm

# TC 200 Technical Specifications

## TC 200 receiver

The TC 200 receiver forms the heart of the device family. The modular design permits a variety of configuration options. The dual micro processor technology not only enables the received data to be checked; it also enables feedback data of the machine to be read and processed. Status messages can easily be evaluated externally through a text-message read-out on the receiver housing.

The receiver features modular design with 7 plug-in cards. A total of 4 slots are provided for generating commands. In the event of a defect, the individual modules can be rapidly replaced, and this considerably simplifies service. Processing of the output relays can be set as standard via DIP switches, and is also optionally programmable. Potential can be switched via the internal connector strip.

Not only relay cards but also opto-coupler cards, analog cards and field bus cards are available for addressing programmable controllers (PCs) crane controls, vehicle controls and machine controls.

The tandem operation (pitch-and-catch) option enables the crane to be controlled alternately by two or more transmitters. One transmitter assumes responsibility for issuing commands to the crane until it relinquishes responsibility via an active command. This enables the crane to be controlled by other operators. This option is useful wherever heavy or long loads have to be transported simultaneously by two cranes in tandem, or where different operators have to transport loads over relatively long distances.



- 2-channel dual micro processor system with internal communication and mutual monitoring
- AC PSU 48V - 230V 50/60Hz
- DC PSU 12V - 48V
- Synthesiser HF module (autoscan)
- 500 ms passive emergency stop time
- 3 redundant passive emergency stop circuits
- Relays capacity AC 5A/250V
- Status display: Master 8 LEDs, Slave 4 LEDs
- Standard frequency setting via DIP switches
- PC interface for easy configuration and diagnosis
- 4 available slots for output cards
- Redundant address
- Cable gland as standard connection
- Protection class: IP 65
- Dimensions WxHxD: 220 x 320 x 160 mm

\* Specifications are subject to change or revision without notice. Consult the factory for verification.

# TC 200 Options

- Antenna diversity for difficult reception conditions
- Multi address switching
- Field bus cards: Profi-DP, Interbus-S
- Optocoupler output cards
- Proportional output cards
- Tilt switch in transmitter
- External transmitter antenna
- External address
- 1.6Ah batteries
- Processor-controlled charging unit
- Carrier belt for the transmitter
- Harting connector for relay output



### Accessories

TC200 Series battery charger

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