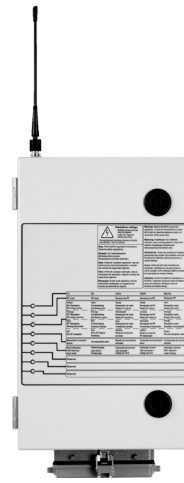


# MMCU4

## CATTRONCONTROL™



## A POWERFUL AND FLEXIBLE MACHINE CONTROL UNIT FOR INDUSTRIAL CRANE AND MACHINE APPLICATIONS

### HIGHLIGHTS

- The MMCU4 is part of the CattronControl™ family of products and is a fully configurable Machine Control Unit (MCU). The basic unit comprises a robust IP65 steel enclosure with five card slots. The first card slot is occupied by a power supply, CPU, radio and two safety Stop relays. This leaves four more card slots to be configured as required from a wide range of modules that are listed on the back of this datasheet. These enable the MMCU4 to work with almost any crane or machine application.
- The MMCU4 features the latest generation safety critical hardware, software and RF transmission design, making this unit the ideal choice for clients seeking peace of mind and confidence that safety and productivity will be maintained at the highest level. The MMCU4, like the rest of the CattronControl range, features an easy-to-change RFID Transkey™ for simple unit configuration, this allows facilities to quickly deploy spare units by simply swapping the RFID Transkey between the operating unit and the spare. Downtime and spares holding are minimized. The MMCU4 series can be used with any of the diverse range of operator control units from the CattronControl range.

### FEATURES

- Customized by our dedicated team of application engineering experts to suit almost any application
- A diverse range of interfaces that can be freely mixed, including dual safety Stop relays, normal and safety function relays, analog, digital inputs and outputs and many different BUS types
- High safety class through redundant hardware and safety critical software
- Approvals and frequencies for worldwide deployment
- Compatible with all CattronControl operator control units
- Rugged and compact IP65 protection class industrial enclosure
- System configuration via secure wireless (RFID) Transkey for simple service and minimal spares holding
- Features removable terminal connections for ease of installation and maintenance
- Industrial grade, wide range AC power supply and several DC power supply variants available
- Multi-LED indication for status and diagnostics
- Tandem and multi-transmitter and/or receiver operation
- CE compliant





# TECHNICAL DATA AND SPECIFICATIONS

## INTERFACES

No of I/O cards	up to 4
<b>Output Cards</b>	
Standard Relay	16 relays per card, 5 A/250 V AC
Safety Relay 8	1 Standard and 8 force-guided safety relays, 5 A/250 V AC
Opto-Coupler	16 per card, up to 48 V/30 mA DC
Analog	4 channels per card 0-20 V DC, 0 - ± 10 V DC or 0/4-20 mA

## Input card (feedback)

Baseboard	1 to 4 modules per card
Modules	DC digital: 4 per module, 12-36 V DC AC digital: 4 per module, 90-140 V AC
Fieldbus Cards	Profibus-DP, DeviceNet, CANopen Ethernet/IP, Modbus-TCP, Profinet IO
Stop Command	2 force-guided safety relays

## CONFIGURATION

Transkey™	System configuration, address and RF channel setting
Indication	8 Multi-LED for status and diagnostics

## MECHANICAL DATA

Weight	Maximum 6.2 kg (13.7 lbs)
Dimensions L x W x H	320 x 255 x 185 mm (12.6 x 10.04 x 7.2 inches)
Housing Material	Painted steel with hinged door, Standard color gray
Housing Protection Rating	IP65 - suitable for outdoor use
Operating temperature	-20° to +60° C (-4° to +141° F)
Storage Temperature	-40° to +70° C (-40° to +158° F)

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## ELECTRONIC DATA

Digital Circuitry	Dual-processor technology
System Addresses	24 bits = 16 million addresses
Hamming Distance	d=6 (Telegram verification) 16 bit CRC
Supply Voltage	42/48, 115/230 V AC, 12/24 V DC (nominal)
Power Consumption	60 VA (nominal)

## RF

Frequency Range	335 MHz 406-418 MHz 433-434 MHz 447-473 MHz 869 MHz 915-927 MHz Other frequencies possible
Regulatory	Licensed and unlicensed bands available
Transmitter Output Power	1-500 mW
RF Security	Black Channel
RF Channel Spacing	12.5 kHz; 25 kHz and others
RF Sensitivity	>107 dBm (nominal)
Antenna	External

## STANDARDS

Safety	EN 13849-1 Category 3 PL d EN 60204-1 EN 60204-32 CE Compliant
Shock	EN 60068-2-27
Vibration	EN 60068-2-6

## ACCESSORIES

Antenna	External
Installation	4 Shock Absorbers

