

# Cobra Radio Remote Control

## Intelligent bidirectional Narrowband-Technology

*for industrial automation  
and commercial use*



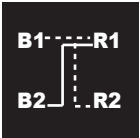
- automatic frequency selection
- high operating range
- easy programmable
- feedback

# The features of Cobra:



## **advanced Narrowband-Technology:**

Several remote-control systems can be operated at the same time. A intelligent software algorithm selects a free frequency channel and avoids channels that are already used by other systems. This way a stable and reliable connection can be maintained in almost any situation.



## **easy and flexible configuration:**

The behaviour of the receiver is fully programmable by the user. In no time you can implement demanding automation tasks. Changes can be made on site without special tools, you just need a screwdriver



## **doubleprocessor system:**

Both the transmitter and also the receiver have two microprocessors that share the work. Thanks to this teamwork, the remote-control responses very fast and is comfortable and save.



## **high operating range:**

Modern Narrowband-Technology and a consequently optimized RF-design result in a trouble-free and save working distance. Within buildings the operating distance is 3-5 floors, outdoors the range is more than 1km with free view. For even higher distances, a special version is available as an option.



## **user feedback:**

A display on the handheld transmitter shows the user, if the command has been properly transmitted to the receiver. In situations where you do not directly see if the receiver has run the command, the bidirectional data link from the receiver back to the transmitter gives you the desired safety that your command has been carried out.



## **long battery life:**

With a operating time of 150 hours for the transmitter, most of the applications will run for several years without changing the batteries. If you use the transmitter 10 minutes each day, the batteries will hold approx. three years.



## **compact, stylish:**

The attractive designed DIN-rail box of the receiver uses only 35mm width in the cabinet, and the antenna is already included in the receiver box. So for most of the applications, an additional external antenna is unnecessary.



## **service friendly:**

The receiver is installed or changed in no time and without any tools. The connectors are pluggable, so the exchange of the receiver is really easy. The programming can be done on site within minutes and just with the help of a screwdriver.



### **safety:**

each transmitter has a unique code out of 16 millions of combinations, which is saved at the receiver. The radio communication is protected by a secure 16bit checksum (CRC16). Therefore a false trip of a receiver function is impossible. Further safety features can be activated if required both on the transmitter and on the receiver.



### **customer support:**

The cobra product line has been developed and manufactured in Switzerland. We are constantly working on the products to improve them further and to satisfy the needs of our customers. You can rely on a direct and fast customer service.

## **The Cobra Options:**

### **handheld transmitter with 2 and 8 keys:**

The handheld transmitter is available with 2, 4 and 8 keys. The keys can be labeled individually. The version with 8 keys has integrated an additional safety feature in the keyboard.



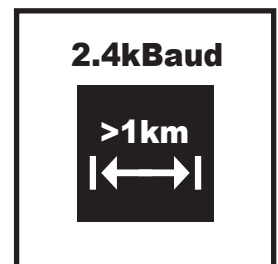
### **receiver with 8...32 relays:**

With additional Slave-modules, the functionality or redundancy of Cobra can be extended. Each Slave-module adds 4 relays.



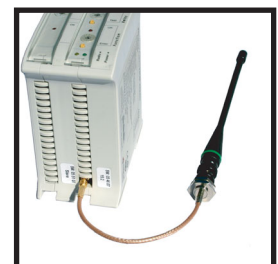
### **higher operating range:**

If an operating range of more than 1 km is required, a special version of Cobra is available with a lower communication data rate.



### **external antenna:**

An external antenna can be connected to the receiver if required. In this case, the built in standard antenna can be switched off. Mostly the internal antenna is sufficient even when the receiver is installed in a metallic cabinet, because of the highly sensitive receiver.



## Technical specifications Cobra Handheld Transmitter 2K, 4K, 8K

Frequency range	433.075 MHz to 434.775 MHz 14 frequency channels in the 100 kHz grid
Transmitting power	+ 10 dBm
Antenna	Internal
Number of keys	2, 4 or 8 tactile pushbuttons respectively up to 16 switching channels with double occupation
Coding of data	Manchester coding with CRC16
Addressing mode	Unique 24-bit codes permanently programmed by the factory
Extended transmitting functions	Double-click function (8K, 16K), keylock, double-click lock, automatic frequency
Power supply	2 batteries with 1.5 V or 2 NiMH rechargeable batteries with 1.2 V (AA/LR6)
Power consumption	16 mA (in transmit mode)
Life span of battery	150 hours of continuous operation with an alkaline battery of 2200 mAh
Body	Synthetic material, IP65, orange colour
Temperature range	-20 to +55 °C
Dimensions	120 x 65 x 23 mm
Compliance with standards	CE, R&TTE

## Technical specifications Cobra Receiver 4K-19.2kBaud

Frequency range	433.075 MHz to 434.775 MHz 14 frequency channels in the 100 kHz grid
Transmitting power	+ 10 dBm (for the link control to the handheld transmitter)
Antenna	Internal antenna which can be disconnected MCX socket for external antenna
Programming	2 keys / 2 coding switches, adjustable with a screwdriver up to 60 handheld transmitters can be registered
Coding of data	Manchester coding, error recognition with CRC 16
Power supply	12-24 VDC / min. 9 VDC, max. 30 VDC
Power consumption	125 mA, all relays activated (supply voltage = 12 V DC) 45 mA, all relays deactivated
Relay Functions	Max. turn-off load 250 V AC / 8 A Impulse, toggle, On-Off, Timer (Option)
delay after activation of button on transmitter	On: 50ms incl. key debounce and relay switching time Off: 50ms (typ.) 75ms (max.) Timeout: 350ms (relay with Impulse-Function))
Body	Synthetic material (PC/ABS), light grey colour, for DIN-rail mounting on a DIN rail according to EN 50022 specification
Temperature range	-20 to +55 °C
Dimensions	120 x 101 x 35 mm
Compliance with standards	CE, R&TTE