# BRICK
## Radio remote control

Radio remote control with handheld transmitter with shoulder strap, suitable for cranes and bridge cranes. Ergonomic, compact and lightweight. Designed to reduce installation and maintenance time and costs.

## FEATURES

- Quick and easy installation: from the transmitter it is possible to change the frequency, visualizing it through the flashing led channel indicator, program automatic switch-off functions, enable low power start-up, program the auxiliary button functions to meet the operator's needs.
- Transmitter equipped with high elasticity and resistance elastomer buttons.
- IP protection degree: Brick is classified IP65.
- Extreme temperature resistance: from -20°C to +70°C.
- Tough NYLON casing for protection against shocks and scraping, resistant to acids, oils and chemical agents.
- Designed with an ergonomic shaped base and anti-slip bars for a better grip.
- Automatic switch-off after 4 minutes inactivity.
- Standard version includes a digital key for higher reliability.

## OPTIONS

- Available in configurations from 9 to 12 actuators, plus Start and Stop.
- Patented universal electromagnetic induction charging device: the batteries inside the transmitter are recharged by inductive energy transfer by simply placing the transmitter on its base. A 20 minute charge is enough for a typical working day.
- Receivers are available for mounting inside the electric panel (RX DIN) or in an IP65 watertight case for outdoor installation (RX RubyBox).
- Operational data storage by the receivers (working hours, total amount of start-ups and shut-downs, number of lift or movements); the tester Monitor (on request) is available to display the data.
- Supplied with a sturdy and reliable waterproof antenna (Active 2 model) for the receiver mounted inside the electric panel (RX DIN) or with an internal antenna for the version with outdoor casing (RX RubyBox).
- Directional and high-gain antennas also available (aerial LogP model and panel Flat870 model).

## CERTIFICATIONS

- CE Marking.
- Performance Level Category 3 PL d.
- Performance Level Category 2 PL c.

The data and the products illustrated in this brochure may be modified without notice. Under no circumstances can their description have a contractual value.

## RECEIVER UNITS

| RX DIN | RX RubyBox |
|--------|-----------|

## CERTIFICATIONS

| | |
|---|---|
| **Conformity to Community Directives** | R&TTE 99/05/CE (Annex III)  Radio and Telecommunications Terminal Equipment Directive |
| | LVD (2006/95/CE)  Low Voltage Directive |
| **Conformity to CE Standards** | EN 301 489-3  Electromagnetic compatibility and Radio spectrum Matters (ERM) - Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 3. |
| | EN 300 220-2  Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices (SRD) - Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW - Part 2. |
| | EN 60950-1  Information technology equipment - Safety - Part 1: General requirements. |
| | EN 60204-32   Safety of machinery - Electrical equipment of machines - Part 32: Requirements for hoisting machines. |
| | EN 13557  Cranes - Controls and control stations |
| | EN 61000-6-2  Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments. |
| | EN ISO 13849-1:2006  Performance Level of Safety Function<br>Category 3 PL d  Stop Protection<br>Category 2 PL c  Protection againist unintednted movements from the standstill position |
| **Markings and homologations** | $C \epsilon$ |

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Ambient temperature** | Storage -20°C/+70°C |
| | Operational -20°C/+70°C |
| **Frequency** | 869.700 – 870.000 MHz, 11 channels, 25 KHz |
| | 433.050 – 434.790 MHz, 59 channels, 25 KHz |
| **Hamming code** | > 4 |
| **Maximum no. of simultaneous on/off controls** | 10 |
| **Response time** | 45 ms |
| **Active Emergency/Stop response time** | 45 ms |
| **Passive Emergency response time** | 1 s |
| **Operating range** | Approx. 100 mt |
| **Stop control classification** | Cat 3 PL-D |

## SPECIFICATIONS OF TRANSMITTER UNIT

| | |
|---|---|
| No. of buttons | From 9 to 12 + Start and Stop |
| Modulation | FM Manchester code |
| Output power | From 1 to 10 mW |
| Oscillator | Digital PLL |
| Antenna | Integrated |
| Power supply | 3.6 Vdc |
| Power consumption | 45 mA |
| Batteries | Integrated 3x1 x 1.2 V - 1800mA |
| Battery life | ≈ 35 hours  (20°C) |
| Low battery warning time | 60 minutes |
| IP protection degree | IP 65 |
| Overall dimensions | 210 x 80 x 40 mm (LxWxD) |
| Weight | 400 g |

## SPECIFICATIONS OF RECEIVER UNITS

| | |
|---|---|
| Radio frequency receiver | Single Chip |
| Antenna | RX RubyBox: integrated (external antennas available) |
| | RX DIN: external |
| Control relay contact rating | 4A /115 Vac |
| Stop relay contact rating | 4A /115 Vac |
| Power supply | 12-24 Vdc 1,0A |
| | 24-115Vac 0.4A |
| | 230Vac 0.2 A |
| IP protection degree | RX RubyBox watertight Nylon casing for outdoor mounting: IP 65 |
| | RX DIN for internal mounting on DIN bar. IP 20 |
| Overall dimensions | RX RubyBox: 266 x 169 x 89mm (LxWxD) |
| | RX DIN: 158 x 90 x 75 mm (LxWxD) |

## SPECIFICATIONS OF EXTERNAL ANTENNAS

| Model | Active2 | Flat870 | LogP |
|---|---|---|---|
| Specifications | Robust, reliable, watertight and suitable for any application | Flat antenna with microstrip technology, boosts signal strength, designed for use in areas where reception may be compromised by signal disturbance or obstructions | Robust and reliable, for use on any application where increased performance is necessary due to interference by shielding sources |
| Configuration | ¼ λ amplified | Panel | Directional log-periodic |
| Working frequency | 869.700 - 870.000 MHz (870 MHz version) 433.050 - 434.790 MHz (434 MHz version) | 863.000 - 870.000 MHz | 869.700 - 870.000 MHz |
| Gain | 8 dB | 14 dB | 10 dB |
| IP protection degree | IP 65 | - | - |
| Overall dimensions | 128 x 72 x 50 mm (LxWxD) | 240 x 25 x 240 mm (LxWxD) | 175 x 60 x 515 mm (LxWxD) |
| Weight | 140 g | 800 g | 580 g |
| Connection | Supplied with 1.5 m cable and SMA connector | Supplied with 3 m cable and SMA connector | Supplied with 3 m cable and SMA connector |

## REMARKS

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