GENESIS
Radio remote control

Radio remote control equipped with "move" highly configurable universal platform that integrates new generation electronics enhancing customization levels. Sturdy and reliable, with modern and ergonomic shapes, it is designed for safe and userfriendly use in a variety of sectors.

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.
- Ergonomic rubber-coated handle for easy and safe grip.
- Practical and sturdy hand rest for smoother maneuvering.
- IP protection degree: Genesis 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.

OPTIONS

- Available with 7 segment large digit read-out display, or graphic display with 16x16 pixels icons or full screen 128x64 pixels, 4 sets of digits (2 of which are programmable: Cirillic, Greek, etc.), 2 vertical and/or horizontal led bars for immediate event recognition.
- 433/869 MHz dual band continuous sequential scanning receiver (also available at 915 MHz for the United States and Canada), CANopen connectivity (with over 50 basic profiles) RS422 and RS485 connectivity for PLC and automation.

- Outputs: digital (on/off), voltage (ratiometric, Danfoss valve, etc.), current (0-20mA), PWM.
- Inputs: digital (on/off), analogue (current), analogue (voltage).
- Transmitter powered by patented wireless electromagnetic induction charger or by external rechargeable Li-Ion batteries, featuring an innovative no-stop system that enables continuous operation of the remote control even while the discharged batteries are being replaced.
- Receivers are available for mounting inside the electric panel (RX DIN), in an IP65 watertight case for outdoor installation (RubyBox), and in a compact case (Ecobox).
- Supplied with a sturdy and reliable waterproof antenna (UHF model) for the receiver mounted inside the electric panel (RX DIN) or with an internal antenna for the versions with outdoor casing (RubyBox and Ecobox).
- Directional and high-gain antennas also available (Flat870 model).

CERTIFICATIONS

- CE Marking.
- Peformance Level Category 4 PL e.
- Performance Level Category 3 PL d.

Manufactured by RemDevice Srl – Distributed by TER Tecno Elettrica Ravasi Srl.

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POSSIBLE ASSEMBLIES

RECEIVER UNITS

RX DIN **Ecobox** **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 Categoria 4 PL e: Stop Protection Categoria 3 PL d: Protection againist unintednted movements from the standstill position
Markings and homologations	CE

TECHNICAL SPECIFICATIONS

Ambient temperature	Storage -20°C/+70°C
	Operational -20°C/+70°C
Multiband working frequency	Full-Duplex, 72 channels - ISM band
Hamming code	> 4
Response time	From 20 ms to 80 ms depending on configuration
Active Emergency/Stop response time	From 20 ms to 80 ms depending on configuration
Passive Emergency response time	1 s
Operating range	100 mt
Stop control classification	Cat 4 PL-E (ISO 13849-1) and SIL 3 (EN 62061)
Joystick controls (UMFS) classification	Cat 3 PL-D and SIL 2

SPECIFICATIONS OF TRANSMITTER UNIT

Modulation	FM - GFSK
Output power	From 1 to 10 mW
Oscillator	Digital synthesing PLL
Antenna	Dedicated multiband
Power supply	3.6 Vdc
Power consumption	50 mA max
Batteries	Integrated 3x1 x 1.2 V = Battery life 30 hours
	External LI-ION 7.4 V = Battery life 20 hours
Low battery warning time	30 minutes
IP protection degree	IP 65
Overall dimensions	310 x 193 x 163 mm (LxWxD)
Weight	1580 g (depending on configuration)

SPECIFICATIONS OF RECEIVER UNITS

Radio frequency receiver	Single Chip
Antenna	RubyBox and Ecobox: dedicated multiband (external antennas available)
	RX DIN: external
Safety relay contact rating	8A (DC1/AC1) /115 Vac
Control relay contact rating	4A (DC1/AC1) /115 Vac
Stop relay contact rating	4A (DC1/AC1) /115 Vac
Power supply	12-24 Vdc
	24-115 Vac
	230 Vac
IP protection degree	RubyBox and Ecobox watertight Nylon casing for outdoor mounting: IP 65
	RX DIN for internal mounting on DIN bar: IP 20
Overall dimensions	RubyBox: 266 x 169 x 89mm (LxWxD)
	Ecobox: 177 x 123 x 50 mm (LxWxD)
	RX DIN: 158 x 90 x 75 mm (LxWxD)

SPECIFICATIONS OF EXTERNAL ANTENNAS

Model	UHF	Flat870	Whip
Specifications	Universal antenna suitable for standard applications. Prepared for fastening through a 16 mm diameter hole.	Directional antenna suitable for special applications where increased radio coverage in a particular direction is necessary. Prepared for pole or similar support.	Omnidirectional antenna suitable for applications where an all-direction radio coverage is required. Prepared for fastening through a 13 mm diameter hole.
Working frequency	418 MHz, 433-434 MHz, 870 MHz, 915 MHz	870 MHz	418 MHz, 433-434 MHz, 870 MHz, 915 MHz
Gain	5 dB	14 dB	8 dB
IP protection degree	IP 65, material: PA6 FV	-	-
Overall dimensions	128 x 72 x 50 mm (LxWxD)	240 x 25 x 240 mm (LxWxD)	35 x 450 x 35 mm (LxWxD)
Weight	140 g	800 g	190 g
Connection	Supplied with 1.5 m cable and SMA or SMB connector (depending on the model)	Supplied with 3 m cable and SMA connector	Supplied with 3 m cable and SMA connector