



GENESIS

Technical Sheet



A step forward in all fields

Genesis fears no challenge: its recognized resistance to work exploits the tested but innovative (patented) wireless induction recharging system. Genesis is the fully customizable, robust and ergonomic console.

Technical characteristics

- Dual Band frequency: 433 MHz / 60 channels and 870 MHz / 12 channels
- Frequency: 418MHz / 11 channels China
915 MHz / 51 channels USA-Canada
- Commands: on/off, CANbus, PWM, voltage/current, RS 422/485
- Connectivity CANopen (with over 50 base objects) for automotive applications
- Connectivity RS422 and RS485 for PLC and automation
- All types of outputs: digital (on/off) - voltage (radiometric, danfoss, etc.)
- PWM power current - current 4-20 mA
- Type of inputs: digital (on/off)
analogue in tension (0-10V)
analogue in current (4-20mA)
- Hamming code distance > 4
- Response time to commands: from 20 ms to 80 ms according to configuration
- Active emergency stop command response time: 20 ms
- Command passive emergency response time: 1 s
- The stop command is rated PL-E cat. 4 (ISO 13849-1) and SIL 3 (EN62061)
- The joysticks (UMFS) are rated PL-D cat. 3 and SIL 2
- Range: about 100 m
- Operating and storage temperature: -20°C / +70°C

Transmitter unit

- Modulation: GFSK Manchester
- Radiofrequency emitting power: 1-10 mW
- Oscillator: PLL digital synthesizer
- Antenna: built in
- Power Supply: 3.6 Vdc
- Current demand: max. 50 mA
- Accumulators: built in 3X1.2V = up to 40 hours' autonomy
- Battery low warning time: 30 minutes
- Casing protection grade: IP 65
- Material: PA6 FG Nylon PA6
- Dimensions (LxHxD) 310X163X193 mm
- Weight (variable according to configuration): 1580 g

Options

- LCD 1.3" display
- 1.6" and 3.2" graphic display
- Control cable (radio exclusion)



- Version with external LI-ION rechargeable and replaceable battery in continuous operation 24/7 without interruption of commands also during the replacement of the external battery



Receiver units

- Radiofrequency receiver: Single Chip
- Antenna: Multiband internal UHF. Antenna external optional
- Safety relay contact capacity: 8A (DC1/AC1)* / 115V
- Command relay contact capacity: 4A (DC1/AC1) / 115V
- Stop relay contact capacity: 4A (DC1/AC1) / 115V
- RUBYBOX move
 - No. of on/o fcontacts: 16 + START + 2 STOP + CLAX + LAMP
 - No. of digital inputs: 2
 - No. of optional modules (4 for each RUBYBOX): 12 + 1
- DIN move
 - No. of on/o fcontacts: 22 + START + 2 STOP + CLAX
 - No. of digital inputs: 2
 - No. of optional modules (2 for each Modulbox): 12 + 1
- ECOBOX move
 - No. of on/o fcontacts: 2 + 2 STOP
- Available optional modules:
 - module with No. 8 on/o fcontacts
 - module with No. 8 PWM or 0-10V or 4-20mA outputs
 - module with No. 8 digital inputs
 - module with No. 6 analogue or 0-10V or 4-20mA inputs
 - serial communication module
 - special and customized modules
- Power Supply: 12-24 Vdc $\pm 25\%$ / 24-115 Vac $\pm 10\%$
- Waterproof Casing for Outdoor use: Nylon PA6 FG, Protection Grade IP65
- Dimensions (LxHxD): RUBYBOX move 166 X 279 X 91 mm
- Dimensions (LxHxD): ECOBOX move 129 X 178 X 51 mm
- Dimensions (LxHxD): DIN move 158 x 75 x 90 mm



Available receiver units

DIN move, RUBYBOX move, ECOBOX move



Monitor tester

Self-powered display instrument to connect to the receiver, capable of acquiring the operating data of the radio control.

VIEWABLE INFORMATION:

- Working frequency and operating channel
- Signal and interference level
- Number of starts and working hours
- Number of Up and Down commands
- Relay operating diagnostics
- Active controls



Induction Charging System

Genesis transmitters are equipped with the exclusive Patented wireless induction charging system



Reference standards

Safety	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
Health	EN 62479:2010
EMC	EN 61000-6-2:2005 EN 61000-6-3:2007 + A1:2011
Radio	ETSI EN 300 220-1 V3.1.1 Final Draft ETSI EN 300 220-2 V3.1.1 Final Draft ETSI EN 301 489-1 V2.1.1 ETSI EN 301 489-3 V2.1.0 Draft

Reference rules

FCC	Rule Parts 15C
IC	RSS-247 Issue 1 RSS-GEN Issue 4
Cina	Radio Transmission Approval Certificate
Russia	EAC-GOST Certificate
Machinery (as applicable)	EN 60204-32:2008 EN 13557:2003 + A2:2008 UNI EN ISO 13849-1:2016

Reference directives

- Radio Equipment Directive (RED) 2014/53/EU
- Machinery Directive 2006/42/CE (as applicable)



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