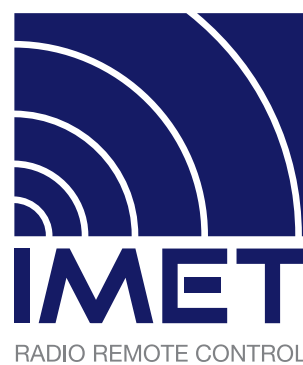




Realized in accordance
UNI/EN 17067 Standard

IMET FORST
SAFE CONTROL IN THE FOREST



RADIO CONTROLS FOR AGRICULTURE AND FORESTRY

Since 1988 we design and manufacture industrial safety radio remote controls for industrial lifting and automation. Solidity, ergonomics, safety and quality of the materials used, make of it a cutting edge product, of the innovative design.



ADVANTAGES

Increased work safety, efficiency and comfort

The operator, free from the bond of the cable or of the fixed station, can take place in the most safe and suitable position to control the machine and the load, without the aid of other operators.

Automatic frequency change

The radio remote control is autonomously able to position itself on the best radio transmission channel. Manual changes of channel change are no longer required.

Comfortable buttons

The IMET buttons are extra large to prevent finger fatigue during prolonged use and increase readability.

Optical joysticks

Designed and manufactured by IMET; thanks to their wide inclination angle ($\pm 40^\circ$), guarantee a precise handling, like no other, that will continue throughout the remote control's life. Stepless and Stepped controls available (1X1, 3X3, 3X5, 5X5).

Ergonomic waist belt

The practical belt allows the operator to completely free his hands to better follow the operations of hooking/unhooking the load of the crane.

Size and weight

All portable transmitter units boast compact dimensions combined with a low weight, features that allow you to maximize working comfort, freedom of movement and robustness.

Extreme environments

Enclosures designed and built with highly shock-resistant materials and temperature changes with a degree of protection IP65 and IP66.

Certified safety

The STOP circuit ensures the maximum level of safety in accordance with the European and international standards.

Configurability and system diagnostics

The PIT00L device allows to interface the transmitting and receiving units to a PC in order to set operating parameters and collect diagnostic information.

THOR2

Strong and complete

THOR2 stands out for its wide paneling commands that allow to contain from 2 to 4 biaxial and triaxial joysticks, up to 9 monoaxial joysticks and many other commands such as selectors, potentiometers and buttons. It can be equipped with a double battery for non-stop shifts thanks to the Twin-B option. The completeness of THOR2 commands makes it ideal for controlling very complex machines in all sectors.

Dimensions

295 x 180 x 165 mm

Weight

2300 g



PL d

Safety category

ZEUS2

Solid and versatile

Perfect combination of reliability and versatility combined in a single control console. ZEUS2 is the synthesis of the best features of ergonomics and functionality. Thanks to the optimized spaces that make it easily customizable according to different needs. ZEUS2 can be equipped with 2 biaxial or triaxial joysticks and up to 6 monoaxial joysticks and auxiliary controls on buttons, selectors and/or potentiometers; it is suitable for controlling various complexity with step or stepless speeds.



Dimensions

205 x 150 x 150 mm

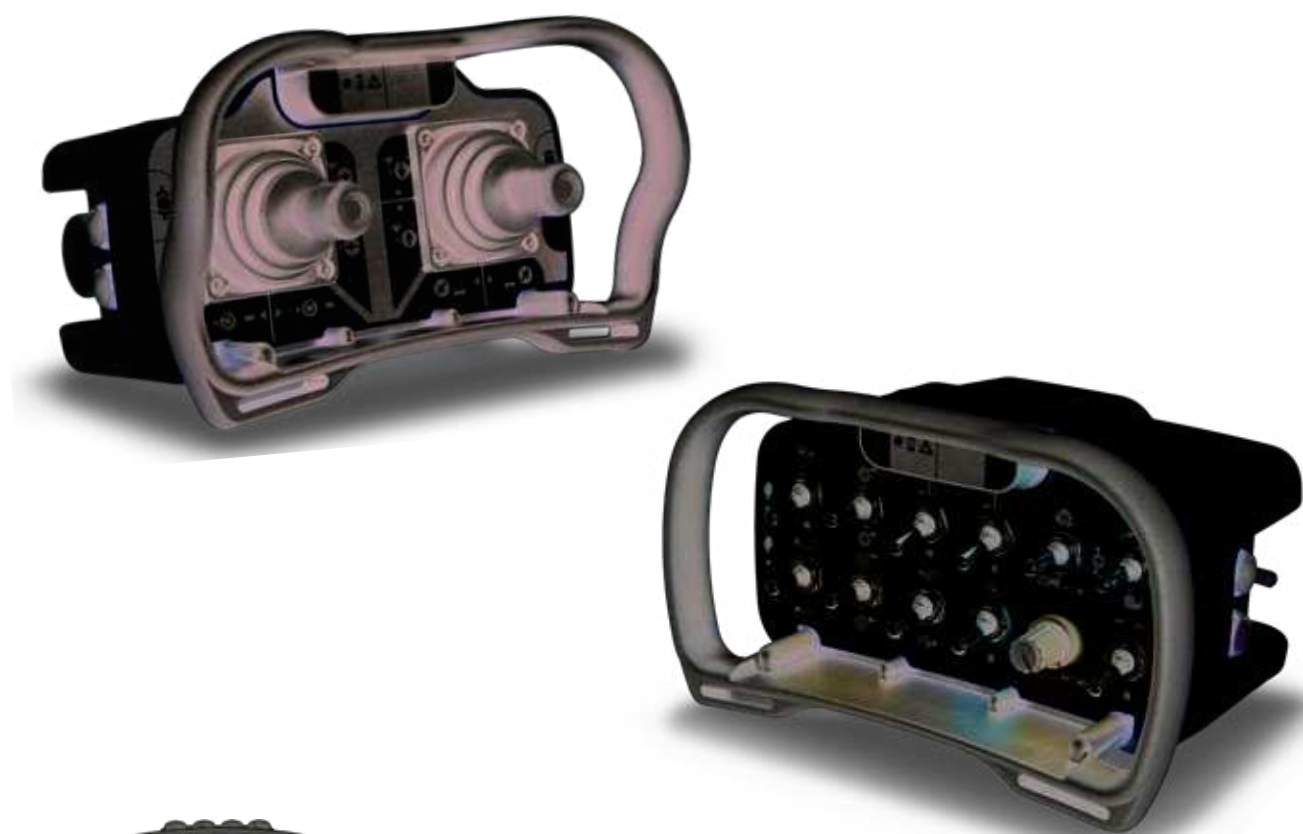
Weight

1450 g

ZED

Synthesis of functionality

ZED is the synthesis of the best ergonomic and functional features. Despite its extremely compact size, the control panel can contain, both monoaxial and biaxial joysticks, as well as selectors, buttons and potentiometers that make it suitable for any type of machine.



Dimensions
214 x 128 x 162 mm

Weight
1000 g



KRON

Robust and innovative

Designed for maximum performance despite its compact size, it is ideal for small machines with few, but requiring maximum safety during all work operations. It is equipped with a practical clip for quick attachment to the belt or pocket, allowing the operator freedom of movement.



Dimensions
180 x 107 x 160 mm

Weight
900 g



ARES2

Compact and robust

ARES2 has been thought to suit all those applications requiring a limited amount of digital and analog functions operated by toggle switches, pushbuttons, rotary switches and potentiometers. Easiness of use is guaranteed even when wearing gloves, thanks to the attention paid in the transmitter layout design. For the carrying, a robust belt clip is integrated in the housing. ARES2 E features a STOP command in cat. PLe/ cat.4/SIL3, suitable for the most demanding safety-critical applications.



Dimensions

143 x 80 x 140 mm

Weight

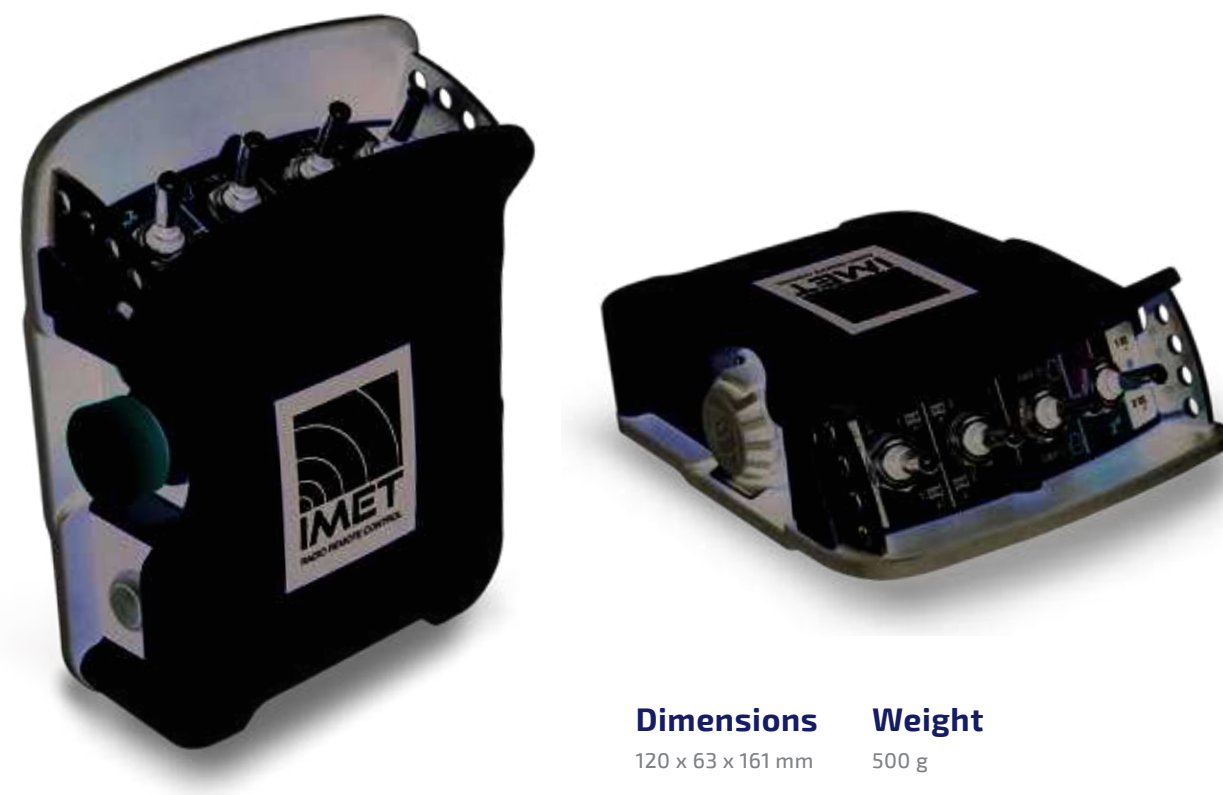
700 g



AXT

Small and powerful

With an extremely strong and resistant construction, AXT is the compact solution for applications where simplicity, ergonomics and easy-of-use must be uncompromised. In the standard configuration, it's equipped with a start button, 4 selectors/ buttons and a STOP mushroom with restraint. On request, it can be customized according to the needs of the customer. There are three system LEDs that monitor the status of the battery and of the radio connection. The latter benefits from the latest radio communication technologies, such as automatic frequency management in the presence of other radio devices.



Dimensions

120 x 63 x 161 mm

Weight

500 g



WAVE2

Ergonomic and complete

WAVE2, in addition to the START and STOP mushroom controls, is available in 6, 8, 10 and 12 double-click buttons that make it perfect for any level of complexity. This versatile transmitter has the option of displaying feedback information graphic displays and Leds. In addition, there is a housing for an auxiliary button control, rotary switch, switch or potentiometer.



WAVE2 S

Dimensions
75 x 43 x 180 mm

Weight
235 g



WAVE2 L

Dimensions
75 x 43 x 245 mm

Weight
315 g



RAY CP

One step, ultra flexible

A one step pushbuttons transmitter with an innovative and versatile design. A Li-ion polymer battery that guarantees an autonomy over 25 hours. Automatic management of the radio channels with AFA technology. Wide possibilities of command layout customization and availability of buttons, selectors, or backlit membrane-foil buttons.

Characterized by Plc functionality for applications where a high Performance Level is not required. It is ideal for the mobile sector, such as roadside rescue, agricultural, forestry and many more.

Dimensions

180 x 80 x 44 mm

Weight

350 g



RAY EP

Safety and compact

Pushbuttons features Ple safety on the STOP circuit. RAY finds natural use for "mobile" applications such as roadside assistance, agriculture, forestry and many more.



Dimensions

157 x 80 x 44 mm

Weight

350 g

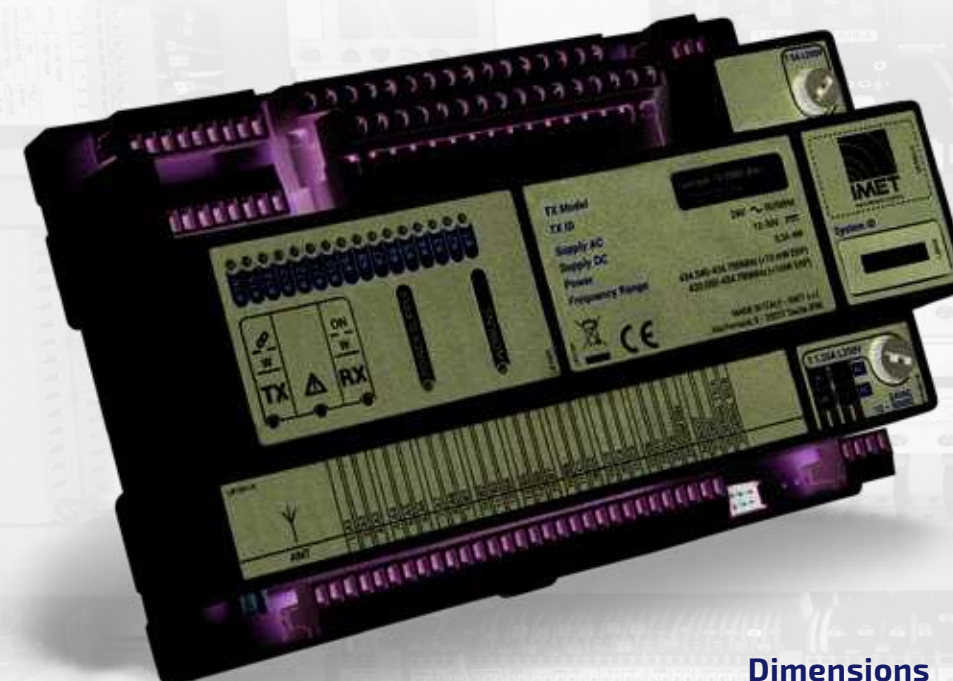


MODIN

The alternative that completes the panel, data transmission via radio and much more

MODIN is the transmitter to be installed on DIN rails inside an electrical panel. It makes available to the user, input terminal blocks for digital, analog and serial commands.

It is used in many sectors that, as an alternative to overly long or difficult wiring, prefer the radio transmission of signals from sensors, limit switches, PLC controllers and ports CAN-BUS, RS232 and RS485 or for sending commands from PLCs, joysticks, buttons, selectors, potentiometers or for the transmission of an emergency shutdown command. MODIN has the following inputs: Start, E-stop, 24 digital inputs, 8 analog, CAN-BUS port, RS232 or RS485. It is the ideal and safe solution for the communication between in tandem or trio coupled cranes.



Dimensions

180 x 120 x 73 mm

Weight

900 g



OPTIONS

FROM IMET WORLD

IMET is constantly looking for innovation and increasingly efficient and safe solutions for the workplace and for the various application needs of the different industrial sectors.



4,3" Color DISPLAY

The high brightness (800 nit) and the 65.000 reproducible colors, allow for a clear and sharp display, even in environments with intense sunlight. It is easily upgradable and programmable via USB with a dedicated software.

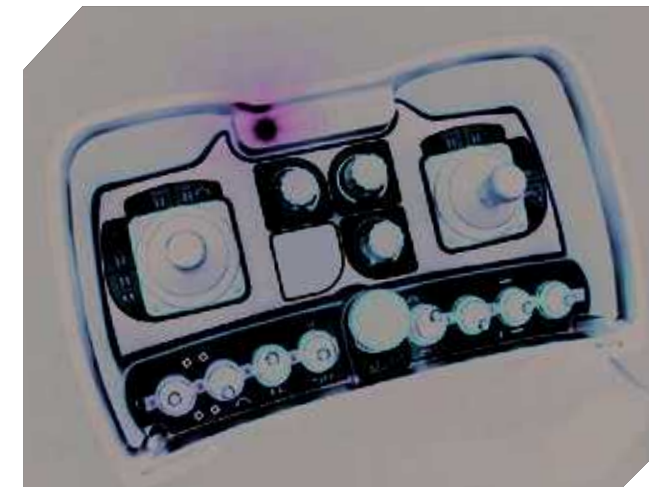
- ZED, ZEUS2, THOR2, TITAN available with 4,3" display



Monochromatic DISPLAY

For applications that do not need complex graphics, customized software with icons and texts according to customer specifications.

- THOR2 available with 3,5" display
- ZEUS2 available with 2,8" display
- WAVE2 available with 1,5" display

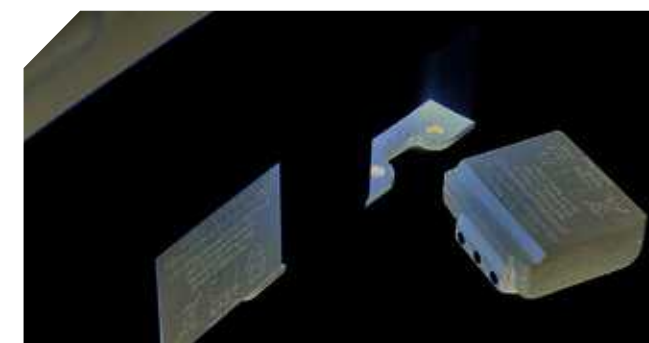


Backlit panel

ZEUS2 and THOR2 models can be equipped with a backlit panel for a perfect readability of the transmitter panel in gloom or low-lights situations.

ADD BOX

ADD BOX expands the commands number present in the transmitter unit allowing further pushbuttons, potentiometers, commutators and LEDs.

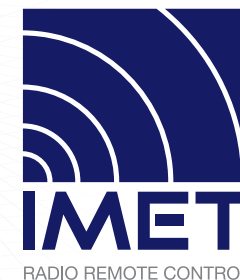


TWIN B

Double battery option. Ideal when the radio remote controlled machine has to operate continuously for long periods of time. Available on THOR2.

OPTIONS

FROM IMET WORLD

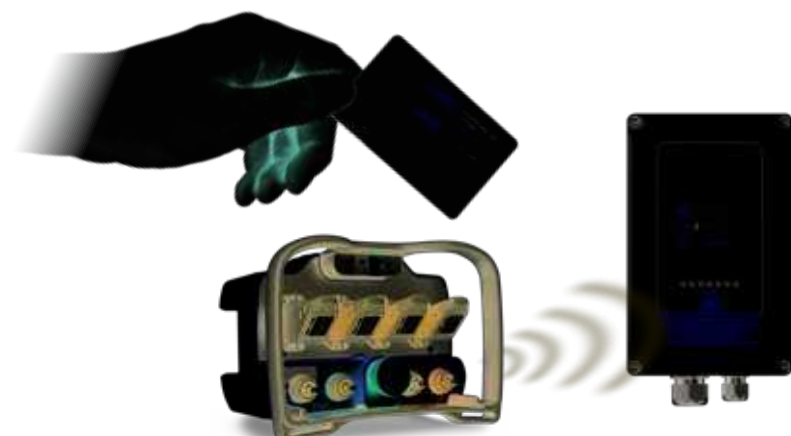


Wired remote control

The range of IMET wired remote controls with CAN BUS or CAN OPEN allows a direct communication with the machine PLC.

PROFINET / ETHERNET IP

Fieldbus interface on M880 L and M receivers for communication with PLCs that are equipped with a Profinet network (Siemens S7) and Ethernet IP.



KAPTA

KAPTA option allows to pair a new transmitter to a receiver in few seconds. For this purpose the transmitting units include a wireless reader and the receiving units come with a smart card. KAPTA pairing procedure guarantees permanent and exclusive control.

ATEX

Remote controls for potentially explosive environments applications.

Certified Transmitters EUT 19 ATEX 3493

II 2 G Ex ib IIB T4 Gb
II 2 D Ex ib IIIC 135°C Db
I M2 Ex ib I Mb
Tamb.: -20°C/+55°C

IECEX EUT 19.0015

Ex ib IIB T4 Gb
Ex ib IIIC T135°C Db
Ex ib I Mb



TILT SENSOR

When the accidental fall of the transmitter or of the operator can be dangerous. The Tilt Sensor operating mode can be set according to the required level of safety: from the simple activation of predefined functions (i.e. horn signal), up to the suspension of all functions of the radio remote control.

This option allows the exclusive control by several operators of the same application. A maximum of 255 operators each with the own transmitter, can control until 8 receivers. MTRS is available in the Standard and Easy versions.



The MTS option allows to have a radio remote control with back-up transmitters that can be immediately activated zeroing the breakdown time. Each radio remote control can count on up to 256 spare transmitters.

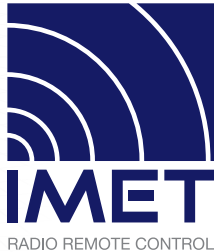
The radio remote control equipped with iReady option obliges the operator to point the transmitter towards the specific machine he intends to turn on within 20 m range. This option guarantees so, more security in working situations in which are present several radio remote controlled machines, likely to be confused with each other.



The DSC (Dynamic Speed Control) function is operated by a "+/-" regulation command placed on the transmitter allowing a real time adjustment of the movements speed while operating the machine in "slow speed" mode.

M880

TECHNICAL DATA



Transmitting units	RAY	WAVE2	AXT	ARES2	KRON	ZED	ZEUS2	THOR2	MODIN	
Dimensions (L.W.A.)	CP: 162x80x43 EP: 180x80x43 mm	S: 72x42x190 L: 72x42x255 mm	120x63x161 mm	143x80x143 mm	180x107x160 mm	214x128x162 mm	205x150x150 mm	295x180x160 mm	180x120x73 mm	
Dimensions with display (L.W.A.)	/	Same	/	/	/	214x204x186 mm	205x205x150 mm	295x250x165 mm	/	
Weight (battery included)	350 g max	S: 235 g max L: 315 g max	500 g max	700 g max	900 g max	1000 g max	1450 g max	2300 g max	900 g	
Max number of ON/OFF commands	18	32	32	32	56	24	56	56	24	
Max number of analog commands (optional)	16	4	8	8	16	16	16 (19) max	16	8	
Joystick commands UMFS ^a = Unintended Movement From Standstill (ISO 13849-1: 6.2.6 architecture)	/	/	/	/	16	4	16	16	/	
Range	100 m									
Casing material	Charged Nylon UL94 HB									
Battery	Ricaricabili IMET Lipo 3,7 2Ah	Ricaricabili IMET Lipo 3,7 2Ah	NiMH 1,2V – 4300 mAh	NiMh 3,6V- 2,2Ah	NiMh 3,6V- 2,2Ah	NiMh 3,6V- 2,2Ah	NiMh 3,6V- 2,2Ah	NiMh 3,6V- 2,2Ah	/	
Autonomy at 20°C with charged battery in continuous service	≈ 25 ore	≈ 23 ore	≈ 25 ore	≈ 25 ore	≈ 22 ore	≈ 22 ore	≈ 22 ore	≈ 22 ore	/	
Command	STOP			PLe Cat.4 (ISO 13849-1:6.2.7 architecture)						
	WITHOUT STOP MUSHROOM			PLc Cat.1 (ISO 13849-1:6.2.4 architecture)						
	JOYSTICK			PLd Cat.3 (ISO 13849-1:6.2.6 architecture)						
	LEVER - BUTTON			PLc Cat.2 (ISO 13849-1:6.2.5 architecture)						
Operating frequency 1			I.S.M. Band 433.050-434.790 MHz Number of programmable channels: 69, AFA mode (Adaptive Frequency Agility) or on fixed channel. Max power: 1 mW e.r.p							
Operating frequency 2			I.S.M. 434.040-434.790 MHz Number of programmable channels: 30, AFA mode (Adaptive Frequency Agility) or on fixed channel. Max power: 10 mW e.r.p							
Operating frequency 3			2,4 Ghz 38 ch							
Alphanumeric LCD display (optional)	/	1,5"	/	/	/	/	2,8"	3,5"	/	
Monocromatic Graphic Display (optional)	/	/	/	/	/	/	2,8"	3,5"	/	
Color Graphic Display (optional)	/	/	/	/	/	4,3"	4,3"	3,5" - 4,3"	/	
Operating temperature			-25°C - +70°C							
Storage temperature			-40°C - +85°C							
Power supply			Single Battery on RAY, WAVE2, ARES2, KRON, ZEUS2, G4 S (Double battery optional on model THOR2) ^b							/
Radio transmission			Half Duplex							
Degree of protection			IP 65							IP 20

^a = depends on the command configuration / ^b = TwinB



AC



DC



Receiving units

H AC / H DC

L AC / L DC

S AC / S DC

M AC

Supply voltage

H AC: 45-240 VAC (50-60 Hz);
H DC: 11÷30 VDC and 24 VAC (50-60 Hz)

L AC: 24-240 VAC (50-60 Hz);
L DC: 11÷30 VDC

S AC: 24 VAC (50-60 Hz) / 12÷30 VDC (Optional 24-440 VAC [50-60 Hz])
S DC: 12÷30 VDC

12÷30 VDC / 24 VAC (50-60 Hz)

Safety commands

STOP, Safety-Enable (up to 8)

STOP, Safety-Enable

STOP, Safety-Enable

STOP, Safety-Enable

Commands

73^a relays or MOS,
32^a Analog
(PWM, current, voltage)

16 relays or 20 MOS,
8 Analog
(PWM, current, voltage)

S AC: 14 relè (N.O.);
S-DC: Max 14 MOSFET (N.O),
4 Analog, 2 digital IN

22 relè (18 N.O. and
4 N.C./N.O.) 4 Analog
(Current, voltage)

Service commands

Start, Horn, Timed-Relay

Start, Horn, Timed-Relay^b

Start, Horn

Start, Horn

STOP relay category^a

PLe Cat 4, ISO 13849-1
6.2.7 architecture

PLe Cat 4, ISO 13849-1
6.2.7 architecture

PLe Cat 4, ISO 13849-1
6.2.7 architecture.
PLc Cat 1, ISO 13849-1
6.2.3 architecture,
(Con ARES2 C e WAVE2 C)

PLe Cat 4, ISO 13849-1
6.2.7 architecture

Field BUS

RS232 / RS485 (115200 Baud max) CAN_Bus (ID 11-29 bit) (1Mbit/s max) CANOpen (ID 11-29 bit) (1Mbit/s max)

RS232 / RS485 (115200 Baud max) CAN_Bus (ID 11-29 bit) (1Mbit/s max) CANOpen (ID 11-29 bit) (1Mbit/s max), Profinet, Ethernet IP

RS232 / RS485 (115200 Baud max) CAN_Bus (ID 11-29 bit) (1Mbit/s max) CANOpen (ID 11-29 bit) (1Mbit/s max)

RS232 / RS485 (115200 Baud max) CAN_Bus (ID 11-29 bit) (1Mbit/s max) CANOpen (ID 11-29 bit) (1Mbit/s max), Profinet, Ethernet IP

Integrated flashing light

/

/

Only AC version

/

Operating temperature

-25°C - +70°C

-25°C - +60°C

-25°C - +60°C

-25°C - +70°C

Protection degree

IP 66

IP 66

IP 66

IP20

Dimensions

205 x 130 x 280 mm

140 x 65 x 230 mm

127 x 147 x 70 mm

180 x 73 x 120 mm

Weight

3500 g

1700 g

600 g

900 g

^a : depends on the configuration / ^b : only for L DC

Compliance to the regulations

- IEC/EN 60950-1
- EN 50371
- EN 60204-32
- EN 60529:1991+A1
- ISO 13849-1

- EN 13557/A2
- EN 61000-6-2
- EN 301 489-1
- EN 301 489-3
- EN 300 220-1

- EN 300 220-2
- 1999/5/CE (Directive R&TTE)
- 2006/42/CE (Directive Machines)
- RED Directive (2014/53/EU)

