Global partner for innovation

PROFESSIONAL
RADIO REMOTE CONTROLS SINCE 1988

IMET
RADIO REMOTE CONTROL

QUALITY AND SAFETY SINCE 1988

A winning team

IMET was founded in 1988 and is one of the pioneering companies in the development and manufacturing of radio remote controls. IMET is first and foremost a team. It is a combination of a number of individuals who pool their talents successfully to create innovative products. Each day presents them with new opportunities to improve in terms of quality and design skills.

No limits of application

IMET radio remote controls improve safety, productivity and efficiency, together with comfort and simplicity in the daily use of your application. By opting for one of the many models in IMET's range you will be able to create a tailor-made system for use in every sector: construction, industrial hoisting equipment, hydraulic cranes, concrete pumping, eco-drainage, drilling and industrial automation.

Designed to serve, built to last

IMET radio remote controls have always been famous for their extreme reliability and for the high quality of its materials, which are the outcome of a constant commitment to research and experimentation. IMET radio remote controls are employed where it is indispensable to operate a handling machine "remotely" and cableless, and use radio waves as a means of transmission. They are highly reliable and particularly valuable in terms of safety, productivity and freedom of movement.

Pre-sales advice, post-sales assistance

IMET's sales and assistance network covers over 40 countries. After the first shake of hands, we escort you step by step during the product development process, in order to mix your experience with ours and develop a solution that makes your product unique: a combination of talents.

IMET CERTIFICATIONS ASSURED SAFETY

As a result of its steady search for innovation and renewal, IMET has always been increasingly geared towards quality and design improvement. The new M880 series of radio remote controls, designed and built to comply with PLe and SIL3 safety performance, is the result of over 30 years of history and experience in the industry.

IMET has been collaborating for years with some of the prestigious international certification bodies such as Nemko, TÜV NORD and CTAI, which certify the functional and electrical safety of electrical and electronic command and control systems in order to protect people and the environment. IMET has always been committed to ensuring maximum control, in compliance with the permitted radio emissions, to provide the highest degree of safety for the operator when using the radio remote control, while guaranteeing top output and operational performance of the device.

An industrial radio remote control must, indeed, comply with the essential radio emission, electromagnetic compatibility and electrical safety requirements, set forth by the RED 2014/53/EU directive, providing functional safety protection from the design and manufacturing stages, in compliance with the requirements of machinery directive 2006/42/EC. In addition to being CE, FCC, IC-marked and thus eligible for marketing in most countries of the world.

IMET products are also RCM (Regulatory Compliance Mark) and MIC (Ministry of Internal Affairs and Communications) certified for Australia/New Zealand and Japan, respectively. n particular, the Regulatory Compliance Mark (RCM) certifies that the electrical and electronic product complies with Australia's and New Zealand's mandatory requirements. A recent addition is the EAC marking for Russia and Eurasian countries.

The certification issued by the RCM concerns electrical safety, electromagnetic compatibility, radio and exposure to electromagnetic radiation. The DC powered receivers are approved for all applications involving vehicles. Type approval recognised by the E24 mark, which is shown on the labels applied to the receivers. This type approval, issued by NSAI authority, considers electromagnetic compatibility based on noise emissions and resistance thereto.

All in order to ensure proper functioning of the electrical or electronic devices installed in vehicles and to protect the safety of drivers and passengers. Reliability and safety are not tantamount. And safety requires the highest priority regardless of the reliability achieved.

The flagship for IMET is the ATEX / IECex certification for its range of products dedicated to environments at risk of explosion.

BEFORE, DURING AND AFTER THE PURCHASE

A widespread, consolidated presence with sales and support networks in more than 40 countries; recognised extensive coverage, tantamount to reliability and service speed both at a pre-order inquiry level, and for every need in the after-market stage. Customer satisfaction and attention to customer, expectations is a source of personal drive to us which urges us to establish a constructive, collaborative and, above all, long-lasting relationship. A shared path that begins from the very first contact and develops through to the delivery of the product; we stand by your side throughout the radio remote control of the development process, with a view to tangibly fulfilling your needs through our experience, until you get an optimised solution for your application - a sum of skills aimed at achieving a winning result.

TITAN

Maximum performance without limit of functions

The new dimension of remote control for no limits applications in a efficiency and innovation concentration. TITAN gives you the ability to create endless customization possibilities with an ergonomic design, robust and a 40% weight lower than the previous model. Thanks to 110 commands between analog and digital, data feedback on leds or 4.3" graphic display, TITAN redesigns the boundaries of the remote control.

Dimensions
400 x 230 x 170 mm
15.7 x 9.05 x 6.7 in

Weight
4000 g
6,61 lb

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
11.61 x 7.08 x 6.30 in

Weight
2300 g
5,07 lb

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	Weight
205 x 150 x 150 mm 8.07 x 5.90 x 5.90 in	1450 g 3,197 lb

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	Weight
214 x 128 x 162 mm 8.42 x 4.21 x 6.38 in	1000 g 2,20 lb

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
7.08 x 4.21 x 6.30 in

Weight

900 g
1,98 lb

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
5.63 x 3.15 x 5.63 in

Weight

700 g
1,54 lb

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	Weight
120 x 63 x 161 mm 4.73 x 2.48 x 6.34 in	500 g 1,10 lb

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	Weight
75 x 43 x 180 mm 2.83 x 1.65 x 7.48 in	235 g 0,51 lb

WAVE2 L

Dimensions	Weight
75 x 43 x 245 mm 2.83 x 1.65 x 0,56 in	315 g 0,69 lb

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
180 x 80 x 44 mm
7.08 x 3.15 x 1.70 in

Weight
350 g
0,77 lb

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.

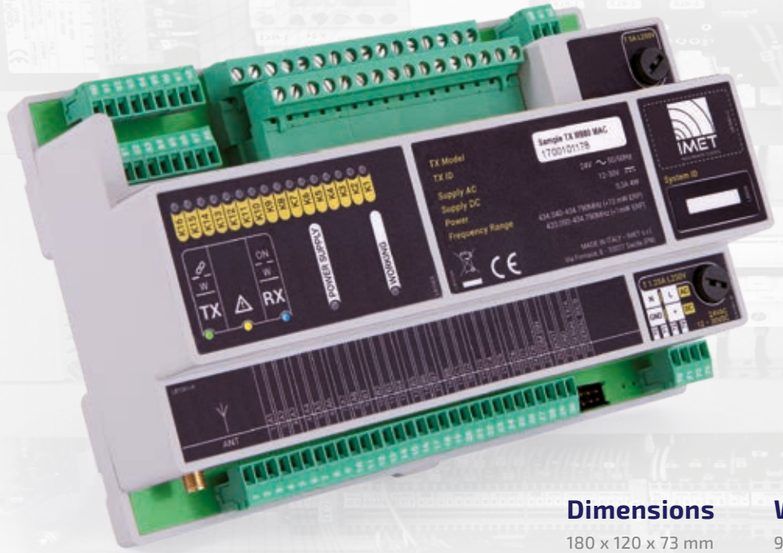
Dimensions
162 x 80 x 43 mm
6.37 x 3.15 x 1.70 in

Weight
350 g
0,77 lb

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
7.08 x 4.72 x 2.87 in

Weight
900 g
1,98 lb

OPTIONS

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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.

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

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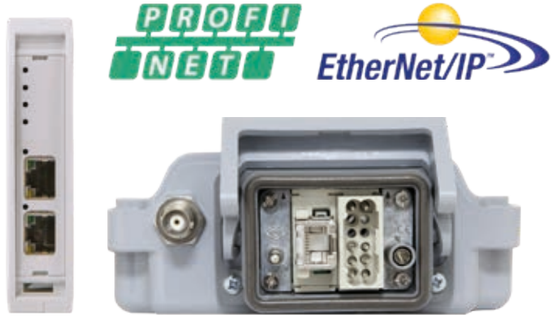
Wired remote control

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.

MTRS
multi transmitter-receiver system

MTS
multi transmitter system

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.

iREADY

DSC
dynamic speed control

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

IMET
RADIO REMOTE CONTROL

Transmitting units		TITAN	THOR2	ZEUS2	ZED	KRON	ARES2	AXT	WAVE2	RAY	MODIN
Dimensions (L.W.A.)		400 x 230 x 170 mm / 15.7 x 9.05 x 6.7 in	295 x 180 x 160 mm / 11.61 x 7.08 x 6.30 in	205 x 150 x 150 mm / 8.07 x 5.90 x 5.90 in	214 x 107 x 162 mm / 8.42 x 4.21 x 6.38 in	180 x 107 x 160 mm / 7.08 x 4.21 x 6.30 in	143 x 80 x 143 mm / 5.63 x 3.15 x 5.63 in	120 x 63 x 161 mm / 4.73 x 2.48 x 6.34 in	S: 72 x 42 x 190 mm / 2.83 x 1.65 x 7.48 in L: 72 x 42 x 255 mm / 2.83 x 1.65 x 0,56 in	CP: 162 x 80 x 43 mm / 6.37 x 3.15 x 1.70 in EP: 180 x 80 x 43 mm / 7.08 x 3.15 x 1.70 in	180 x 120 x 73 mm / 7.08 x 4.72 x 2.87 in
Dimensions with display (L.W.A.)		415 x 300 x 250 mm / 16.33 x 11,8 x 9,8 in	300 x 255 x 200 mm / 11.8 x 10 x 7.87 in	215 x 225 x 170 mm / 8.46 x 10 x 6,69 in	215 x 205 x 185 mm / 8.46 x 8 x 7.28 in	/	/	/	Same	/	/
Weight (battery included)		from 3 to 4,5 kg / from 6,61 to 9,92 lb depending on the configuration	2300 g / 5,07 lb	1450 g / 3,197 lb	1000 g / 2,20 lb	900 g max / 1,98 lb	700 g max / 1,54 lb	500 g max / 1,10 lb	S: 235 g max / 0,51 lb L: 315 g max / 0,69 lb	350 g max / 0,77 lb	900 g max / 1,98 lb
Max number of ON/OFF commands		64	56	56	32	56	32	20	32	18	24
Max number of analog commands (optional)		30	16	16	8	16	8	8	4	16	8
Joystick commands UMFS [α] = Unintended Movement From Standstill (ISO 13849-1: 6.2.6 architecture)		Monoaxial: 30 Biaxial: 8	Monoaxial: 9 Biaxial: 4	Monoaxial: 6 Biaxial: 2	Monoaxial: 6 Biaxial: 2	Monoaxial: 4	/	/	/	/	/
Range		100 m / 330 ft				100 m / 330 ft					
Casing material		Charged Nylon UL94 HB				Charged Nylon UL94 HB					
Battery		NiMH 2,4V - 4,3 Ah	NiMH 3,6V - 2,2 Ah	NiMH 3,6V-2,2Ah	NiMH 3,6V-2,2Ah	NiMH 3,6V-2,2Ah	NiMH 3,6V - 2,2 Ah	NiMH 1,2V - 4300 mAh	Rechargeable IMET Lipo 3,7 2Ah	Rechargeable IMET Lipo 3,7 2Ah	/
Autonomy at 20°C with charged battery in continuous service		≃ 14 hours	≃ 22 hours	≃ 22 hours	≃ 22 hours	≃ 22 hours	≃ 25 hours	≃ 25 hours	≃ 23 hours	≃ 25 hours	/
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. Maximum power: 10 mW e.r.p									
Alphanumeric LCD display (optional)		/	/	/	/	/	/	/	1,5"	/	/
Color Graphic Display (optional)		/	3,5"	3,5"	/	/	/	/	/	/	/
Monocromatic Graphic Display (optional)		4,3"	4,3"	4,3"	4,3"	/	/	/	/	/	/
Operating temperature		-25°C +55°C / -13°F +133°F				-25°C +55°C / -13°F +133°F					-40°C +80°C / -40°F +176°F
Storage temperature		-40°C +85°C / -40°F +185°C				-40°C +85°C / -40°F +185°C					
Power supply		Single Battery on TITAN, ZEUS2, KRON, ARES2, AXT, WAVE2, RAY (Double battery optional on model THOR2) #				Single Battery on TITAN, ZEUS2, KRON, ARES2, AXT, WAVE2, RAY (Double battery optional on model THOR2) #					/
Radio transmission		Half Duplex				Half Duplex					
Degree of protection		IP 65				IP 65					IP 20

* = depends on the command configuration / # = TwinB

M880

TECHNICAL DATA

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 * relays or MOS, 32 * 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 #	Start, Horn	Start, Horn
STOP relay category *	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 / -13°F +158°F	-25°C - +60°C / -13°F +140°F	-25°C - +60°C / -13°F +140°F	-25°C - +70°C / -13°F +158°F
Protection degree	IP 66	IP 66	IP 66	IP20
Dimensions	205 x 130 x 280 mm / 8 x 5 x 11 in	140 x 65 x 230 mm / 5,5 x 2,5 x 9 in	127 x 147 x 70 mm / 5 x 5,78 x 2,7 in	180 x 73 x 120 mm / 7 x 2,8 x 4,7 in
Weight	3500 g / 7,7 lb	1700 g / 3,74 lb	600 g / 1,32 lb	900 g / 1,98 lb

* : depends on the configuration / # : 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)

NOTES

IMET
RADIO REMOTE CONTROL

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