

**ROBUST**

**ERGONOMIC**

**SECURE**

# Gama

## TRANSMITTER

Gama transmitter adapts to the application to make the process more efficient. This easy-to-use handheld module gives incomparable freedom of movement, and higher productivity while providing best high motion accuracy operators' safety. With Gama transmitter, experience today's cutting-edge technology.

### MAIN FEATURES

- > Configurable, smart bi-directional radio link exchanges information while adapting to the radio environment.
- > User-friendly screen for look-up, selection, validation, configuration...
- > Ergonomic casing and buttons, even when wearing thick gloves.
- > Function buttons designed to SIL 2 per EN 61508 and PL d per EN ISO 13849.
- > Quick and easy setup for application configuration thanks to **iDialog** software (labels, feedback, alarms, mapping actuators/outputs, interlocks, network features, access by PIN codes).
- > Easy to maintain thanks to its diagnosis aid system (on screen message, iDialog analysis software).
- > 2 charging modes on Gama:
  - Rugged industrial charger for operator module,
  - Rugged industrial charger for battery.

### FULLY COMPLIANT WITH SAFETY AND SECURITY STANDARDS:

Machinery directive 2006/42/EC:  
 Emergency stop  
 > SIL 3 per EN 61508  
 > Performance level PL e  
 per EN ISO 13849-1 and -2  
 EC type certificate issued by TÜV  
 NORD



Radio and telecommunication terminal  
 equipment  
 (low voltage, electromagnetic  
 compatibility, radio spectrum)  
 FCC part 15  
 ARCEP certificate  
 Radio Equipment Directive (RED)



## DESCRIPTION

The transmitter comes in two versions:

> «**6+2**»<sup>(a)</sup> transmitter with 6 function buttons<sup>(b)</sup>:

- 6 single-action pushbuttons
- OR 6 double-action pushbuttons
- OR 4 double-action pushbuttons + 2 single-action pushbuttons (under the display)

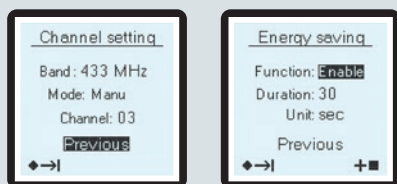
> «**10 +2**»<sup>(a)</sup> transmitter with 10 function buttons<sup>(b)</sup>:

- 10 single-action pushbuttons
- 10 double-action pushbuttons
- OR 6 double-action pushbuttons
- OR + 4 single-action pushbuttons (under the display)
- OR 8 double-action pushbuttons + 2 single-action pushbuttons (under the display)

<sup>(a)</sup> Each version has 2 navigation pushbuttons.

<sup>(b)</sup> The single-action pushbuttons can be configured as selectors for 2, 3 or «n» positions with status indication on the screen.

The screen on the transmitter allows configuring easily and choosing items such as:



- > Screen language
- > Receiver which you want to use
- > Radio transmit frequency and power
- > Duration of the « standby » time delay (automatically stops transmitter and associated receiver if not used for a defined period of time)
- > Operating modes of the equipment (32 max.)

It also displays:

- Battery charge level
- Radio communication
- Equipment labels and controlled functions (max 96 different labels for selectors)
- Equipment feedback (16 feedbacks max with 10 labels / feedback - 48 max labels in total)
- Alarms (8 for application use + 8 for system)

### Compatibility:

These transmitters work with **Elio**, **Alto**, **Timo** Nemo receivers to be defined according the application.

## TECHNICAL CHARACTERISTICS

### MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

Housing material	shock-resistant reinforced ABS
Water tightness	IP65
Weight (with battery)	6 buttons: 768 g
	10 buttons: 893 g
Dimensions	6 buttons: 290 x 93 x 64 mm
	10 buttons: 360 x 93 x 64 mm
Storage	on charger support
Carried	by 2-point shoulder strap

### ENVIRONMENTAL WITHSTAND CAPACITY

Operating temperature range	-20 °C to +50 °C
Storage temperature without battery	-20 °C to +70 °C
Battery storage temperature	-20 °C to +50 °C

### ELECTRICAL AND RADIO CHARACTERISTICS

Power supply	Li-ion battery
Autonomy (25 °C) with radio link activated 100 % time	10 hours
Frequency selection	64 frequencies for 433-434 MHz
	12 frequencies for 869 MHz
	64 frequencies for 911-918 MHz
	64 frequencies for 2.4 GHz
Emission power	< 10 mW (license free)
Range limitation	10 selectable levels of power
Modulation	FM or LoRa with 2.4 GHz
Average range <sup>(1)</sup>	100 m in industrial environment <sup>(1)</sup>
	300 m in open space <sup>(1)</sup>
	800 m-300 m band 2.4 GHz in industrial environment <sup>(1)</sup>
	800 m-2 Km band 2.4 GHz in open space <sup>(1)</sup>
Charging time (endurance > 80 %)	3 hr (20 mn of charge provides 1hr autonomy)
Charging temperature range	0 °C to +40 °C

### FUNCTIONAL CHARACTERISTICS

Display	Backlit LCD, 128 x 128 pixels
	42 mm (W) x 40 mm (H)
USB interface for configuration and diagnosis	mini-B 5-contact USB connector
	Easy access in a compartment on the backside of transmitter
Operating indications	Displayed on screen (radio link status, battery status, status of buttons, information feedbacks...)
Function buttons	6 or 10 pushbuttons (available as single or double-action buttons and configurable as selectors with n positions)
	Ø 14 mm - travel 7 mm
	Endurance :
	1 million cycles for 1st level pushbutton action
	500 000 cycles for 2nd level pushbutton action
Navigation and startup buttons	2 pushbuttons to configure the product (above the emergency stop palmswitch)
	On / Validation button (for startup and validation of menus on screen)
	Endurance:
	500 000 cycles
Emergency stop	2 positions with rotary unlock system
Standby function	User-defined time delay (from 1 s to infinity)

<sup>(1)</sup> Range varies according to environment conditions around transmitter and reception antenna (steel works, metal walls, etc. ...).

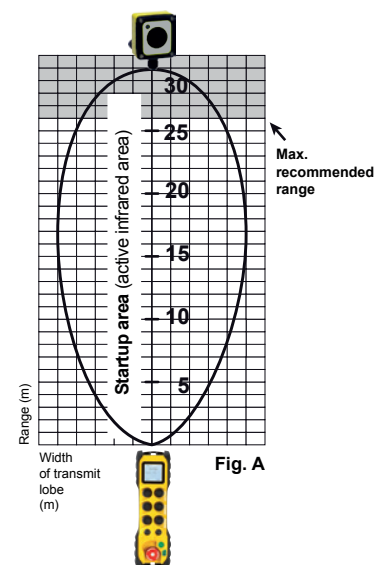
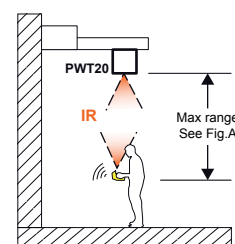
## ADDITIONAL OPTIONS

### STARTUP VALIDATION BY IR

Startup of the remote-controlled equipment can be secured by adding an IR startup feature.








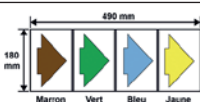


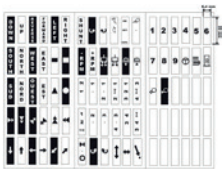
- To start the equipment, the operator must point the module in the direction of the PWT20 IR module(s) mounted on the equipment to control. The "transmitter / Equipment controlled" match-up takes place with no possibility of error.

- The IR startup feature has a range of 26 m (see fig. A).





## ACCESSORIES

Reference	Description	Picture
<b>UWE102</b>	Removable 2-points shoulder strap	
<b>PWC</b>	Charger for PWB plug-in battery Dimensions : 170 x 65 x 36 mm Power supply 12/24 Vdc, 7 W	
<b>PWCG060</b>	Standard charger for Beta2 transmitter Dimensions: 355 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
<b>PWCG061</b>	Docking charger Beta2 with 2 Relays + 1 logical input + Buzzer Dimensions: 355 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
<b>PWCG100</b>	Standard charger for Beta6 transmitter Dimensions: 428 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
<b>PWCG101</b>	Docking charger Beta6 with 2 Relays + 1 logical input + Buzzer Dimensions : 428 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
<b>PWB</b>	Supplementary plug-in battery 3.7 V 2200 mA lithium Ion (for Beta 6) Dimensions : 57 x 56 x 16 mm Voltage: 3.7 V Capacity: 1900 mAh	
<b>UBCU</b>	110-240 Vac / 12 Vdc Adapter with European, UK and US plugs For charger PWC, PWCB02x, PWCB06x	
<b>PWA4</b>	Cigarette lighter socket 12-24 Vdc. For charger PWC, PWCB02x, PWCB06x	
<b>UWE002</b>	4 self-adhesive directional colored arrows (4 x 122 x 180 mm)	
<b>UWE202</b>	6 label kit arrows color	
<b>UWE205</b>	48 blank label kit	
<b>UWE207</b>	Kit 90 labels buttons black & white	

**JAY**

ZAC La Bâtie  
Rue Champrond  
F 38334 SAINT-ISMIER France  
Tel. +33 (0)4 76 41 44 00  
[www.jay-electronique.com](http://www.jay-electronique.com)

A company of

**CONDUCTIX**  
wamplifier

Not all products shown on this leaflet may be available in your area: please contact your Conductix-Wamplifier office.