

**ROBUST****ERGONOMIC****SECURE**

# Gama

## OPERATOR MODULE

The Gama operator module adapts to your application to make your process more efficient. This easy-to-use handheld module gives you incomparable freedom of movement, precise quality manoeuvres, and higher productivity while ensuring your operators' safety. With the Gama operator module, experience today's cutting-edge technology.

### MAIN FEATURES

- Configurable, intelligent 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 gloves.
- Function buttons designed to SIL2 per EN 61508 and PLd per EN 13849.
- Easy to maintain thanks to its diagnostic aid system (information on screen, iDialog analysis software).
- 2 charging modes possible:
  - Rugged industrial charger for operator module,
  - Rugged industrial charger for battery.

### FULLY COMPLIANT WITH EUROPEAN DIRECTIVES :

#### Machinery 2006/42 :

- Emergency stop
    - SIL3 per EN 61508
    - Performance level PLe Per EN13849-1 and -2
- EC type certificate issued by TÜV NORD



No 44 250 11 382580 002

#### Radio and telecommunication terminal equipment

(low voltage, electromagnetic compatibility, radio spectrum)  
R&TTE 99/5/CE  
ARCEP certificate



BIDIRECTIONAL  
RADIO LINK

2 ATTACHMENT  
POINTS FOR  
SHOULDER STRAPS

INTEGRATED REIN-  
FORCED ABS AND  
PROTECTION FOAM

SEALS

FUNCTION BUTTON  
SIL2 - PLd

CASING SHAPED  
TO PREVENT  
UNINTENTIONAL  
ACTIONS

NAVIGATION  
BUTTON

HIGH-CAPACITY  
PLUG-IN BATTERY

EMERGENCY STOP  
PALMSWITCH  
SIL3 - PLe

6+4 MODEL

OPTIONAL  
MULTIMODES

OPTIONAL STARTUP  
BY IR VALIDATION

SEALED USB PORT  
FOR DIAGNOSTICS,  
CONFIGURATION

TOUGH BACKLIT  
SCREEN WITH  
ANTI-REFLECTION,  
SHOCK-PROOF,  
ANTI-SCRATCHING  
FEATURES

LARGE-SIZED  
EASY-TOUCH  
CONTROL BUTTONS :  
• FOR EASY USE  
WITH GLOVES  
• PREVENT  
MUSCULO-SKELETAL  
DISORDER (MSD)

OPTIONAL  
ANTI-ZAPPING  
FUNCTION

IDENTIFICATION  
OF FUNCTIONS

BREATHABLE  
MEMBRANE  
PREVENTS  
CONDENSATION

ON / VALIDATION  
BUTTON

OPTIONAL VIBRATOR  
(ALARM)

10+4 MODEL

## DESCRIPTION

The operator module comes in two housing versions :

→ « 6 + 4 »<sup>[a]</sup> operator module 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 + 4 »<sup>[a]</sup> operator module with 10 function buttons<sup>[b]</sup> :

- 10 single-action pushbuttons

OR • 10 double-action pushbuttons

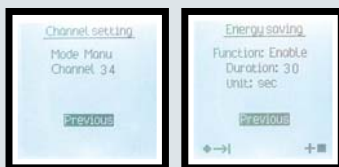
OR • 6 double-action pushbuttons + 4 single-action pushbuttons (under the display)

OR • 8 double-action pushbuttons + 2 single-action pushbuttons (under the display)

<sup>[a]</sup> Each version has 2 navigation pushbuttons, 1 «On/Validation» pushbutton and 1 emergency stop palmswitch.

<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 operator module allows you to easily configure and choose items such as :



→ The screen language

→ The transceiver which you want to use

→ The radio transmit frequency and power

→ The duration of the « standby » time delay (Automatically stops operator module and associated transceiver if not used for a defined period of time)

## TECHNICAL CHARACTERISTICS

### MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

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

### ENVIRONMENTAL WITHSTAND CAPACITY

Operating temperature range	-20°C to + 50°C
Storage temperature range of housing alone	-20°C to + 70°C
Storage temperature range of battery	-20°C to + 50°C

### ELECTRICAL AND RADIO CHARACTERISTICS

Power supply	Li-ion battery
Endurance [25°C] of radio link, activated 100% time	10 hours
Frequency selection	64 frequencies on 433-434 MHz band 12 frequencies on 869 MHz band
Manual / automatic	
Transmit power	<10 mW (license free)
Range limitation	10 power levels, configurable
Modulation	FM
Average range <sup>[1]</sup>	100 m in industrial space <sup>[1]</sup> 300 m in open space <sup>[1]</sup>
Charging time (endurance > 80%)	3 h [20 mn of charge get 1h autonomy]
Charging temperature range	0°C to + 40°C

### FUNCTIONAL CHARACTERISTICS

Display	Backlit LCD, 128 x 128 pixels
USB interface for configuration and diagnostics	mini-B 5-contact USB connector Easily accessible by cover on back of operator module
Operating indications	Visible on screen (radio link status, battery status, status of buttons, information feedback...)
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-definable time delay (from 1 s to infinity)

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

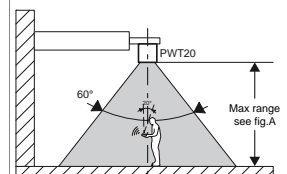
## ADDITIONAL OPTIONS

### Startup by IR validation

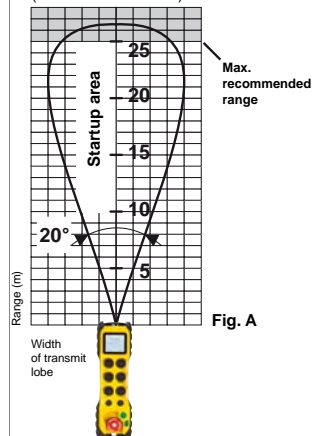
Startup of the remote-controlled equipment can be secured by adding an IR startup feature.

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

- The IR startup feature has an action range of 0 to 25 m (see fig. A).



### Startup area (active infrared area)





## ACCESSORIES



### Standard charger for 6+4 or 10+4 Gama operator modules

Reference : PWC6060  
PWC6100  
Dimensions : • 355x94x96 mm  
• 428x94x96 mm  
Power supply: 12/24 VDC  
Power: 7 w



### Battery charger

Reference : PWC  
Dimensions : 170x65x36 mm  
Power supply : 12/24 VDC  
Power : 7w

### Plug-in battery

Reference : PWB  
Dimensions : 57x56x16 mm  
Voltage : 3,7V  
Capacity : 1900mAh



### Mains power adapter

Reference : UBCU  
Dimensions : 41x72x39 mm  
Power supply : 100-240VAC  
Output : 12VDC  
Power : 7 W



### Rack for battery chargers (6 positions)

Sold without charger  
Reference : PWR  
Dimensions : 470x147x8 mm

### Mains power adapter for rack

Reference : PWAUR  
Power supply : 100-240VAC  
Output : 12VDC  
Power : 36 W

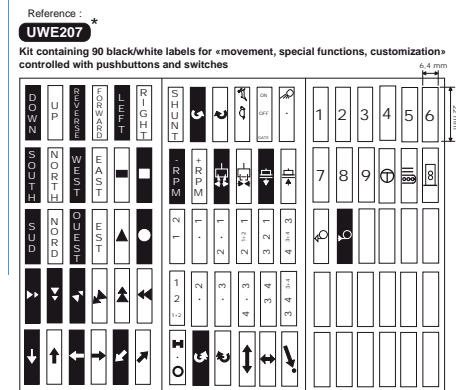


### Removable 2-point shoulder strap

Reference : UWE102

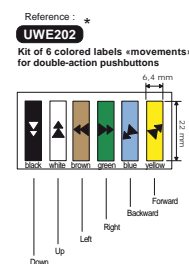
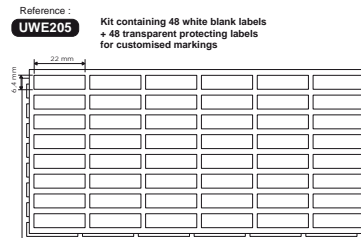
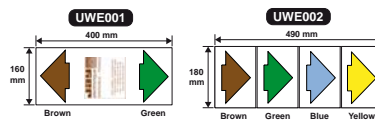
### Sheet of adhesive labels for operator module :

The button functions are identified by adhesive labels in the recesses provided in the operator module casing next to the pushbuttons.



\* = standard sheet of labels supplied with operator module

### Sheet of adhesive labels for your mobile equipment :



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