COMPACT

EASY TO HANDLE

FLEXIBLE

JAY

Beta
TRANSMITTER

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

MAIN FEATURES

> Configurable, smart bi-directional radio link to exchange information while adapting to the radio environment.

> User-friendly screen for look-up, selection, validation, configuration…

> Compact, easy-to handle casing for one-hand control.

> 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 (screen message, iDialog analysis software).

> 2 charging modes on Beta 6 + 4 model:
   - 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

TÜV NORD
TÜV NORD CERT GmbH
Type Tested

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

OPTIONAL STARTUP VALIDATION BY IR
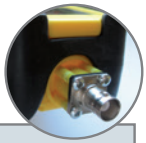
OR

OPTIONAL IR WORK AREA LIMITATION (A)

OR

OPTIONAL PUSHBUTTON

OR

OPTIONAL M12 INDUSTRIAL CONNECTOR TO CONNECT TWO DRY CONTACTS

OR

OPTIONAL BNC ANTENNA CONNECTOR

OR

BREATHABLE MEMBRANE TO PREVENT CONDENSATION

BIDIRECTIONAL RADIO LINK

OPTIONAL BUZZER 80 DBA

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

MULTIMODES OPTION

INTEGRATED REINFORCED ABS AND PROTECTIVE FOAM

SEALS

NAVIGATION BUTTONS

CASING SHAPED TO PREVENT UNINTENTIONAL ACTIONS

LABELS FOR IDENTIFYING FUNCTIONS

OPTIONAL IR WORK AREA LIMITATION (B)

ON / VALIDATION BUTTON

HIGH-CAPACITY PLUG-IN BATTERY (6+2 MODEL)

2+2 model

6+2 model

EMERGENCY STOP PALMSWITCH SIL 3 - PL e

OPTION AUTOMATIC DETECTION OF INACTIVITY «DEAD MAN»

CARRYING STRAP

OPTIONAL VIBRATOR (ALARM)

SEALED USB INTERFACE FOR DIAGNOSIS, CONFIGURATION

Setup
Identifying
Language
Display
Function
Button

Radio
Testing
Power
Channel setting
Previous

DESCRIPTION

The transmitter comes in two versions:

> « 2+2(a) »[a] transmitter with 2 function buttons[b]:

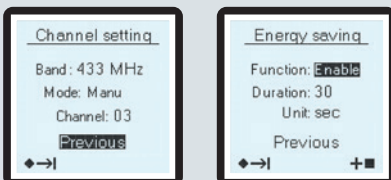- • 2 single-action pushbuttons

  OR 2 double-action pushbuttons

> « 6+2 »[a] transmitter with 6 function buttons[b]:

- • 6 single-action pushbuttons

  OR 6 double-action pushbuttons

  OR 4 double-action pushbuttons
     + 2 single-action pushbuttons
     (under the navigation buttons)

[a] Each version has 2 navigation pushbuttons

[b] 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:


```
Channel setting
Band: 433 MHz
Mode: Manu
Channel: 03
Previous
◆ →|
```

```
Energy saving
Function: Enable
Duration: 30
Unit: sec
Previous
◆ →|        + ■
```

> Screen language

> Receiver which you want to use

> Radio transmit frequency and power

> Duration of the « standby » time delay (automatically stops operator module 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 labels max 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)	2 buttons: 400 g
	6 buttons: 485 g
Dimensions	2 buttons: 182 x 75 x 50 mm
	6 buttons: 235 x 75 x 50 mm
Storage	on charger support
Carrying	in carrying sleeve
	by 2-point shoulder strap
	by 3-point shoulder strap

ENVIRONMENTAL WITHSTAND CAPACITY

Operating temperature	-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) radio with activated	
100 % time	10 hours
Frequency selection	11 frequencies for 418-419 MHz
Manual / automatic	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	Selectable 10 levels of power
Modulation	FM or LoRa with 2.4 GHz
Average range [1]	100 m in industrial environment [1]
	300 m in open space [1]
	80 m-300 m band 2.4 GHz in industrial environment [1]
	800 m-2 Km band 2.4 GHz in open space [1]
Charging time (autonomy > 80 %)	3 hr (20 mn of charge provides 1 hr 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	mini-B 5-point USB connector
diagnostics	Easy access in a compartment on the backside
	of the transmitter
Operating indications	Displayed on screen (radio link status,
	battery status, status of buttons,
	information feedbacks…)
Function buttons	2 or 6 pushbuttons (available as single
	or double-action buttons
	and configurable as selectors with n positions)
Navigation and	2 pushbuttons
buttons	configure the product
	1 On / Validation button (for startup
	and validation of menus on screen)
Emergency stop	2 positions with rotary unlock system
Standby function	User-defined time delay
	(from 1 s to infinity)

[1] Range varies according to environment conditions around transmitter and reception antenna (steel works, metal walls, etc.).

ADVANCED 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.

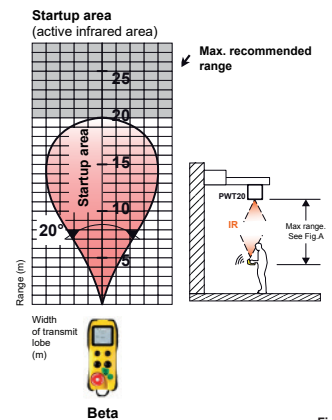- The IR startup feature has a range of 0 to 20 m (see fig. A).

Startup area (active infrared area)

Max. recommended range

Startup area

PWT20
IR
Max range. See Fig.A

Range (m)

Width of transmit lobe (m)

Beta

Fig. A

LIMITATION OF ACTION AREA BY INFRARED

The transmitter work features with an IR emission function which detects an operator in the IR working area. Operator safety is ensured since the operator is required to work in the IR area.

The maximum guaranteed work distance between PWT20 IR modules and the transmitter is 20 meters (see fig.A) or 8 meters (see fig.B).
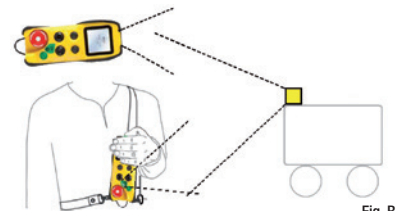

Fig. B

C16 INDUSTRIAL CONNECTOR FOR 2 DRY CONTACTS

- 4 connection terminals
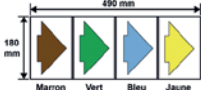- switching capacity < 10 mA
- female socket
- supplied with cap
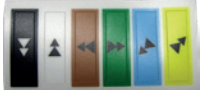
ACCESSORIES

Reference	Description	Picture
UWE102	Removable 2-points shoulder strap	
UWE104	Removable 3 points shoulder strap for thorax protective case for PWM109 (Beta2) or PWM102 (Beta 6)	
PWM102	Carrying and Protection cover for Beta 6. Used with shoulder strap UWE102 (2 points) or UWE104 (3 points)	
PWM106	Protection cover for Beta 6	
PWM107	Carrying sleeve for Beta 2 transmitter	
PWM108	Carrying sleeve for Beta 6 transmitter	
PWM109	Thorax protective case for Beta 2 transmitter. Used with removable strap UWE102 (2-points) or UWE104 (3-points)	
PWM111	Wrist strap for transmitter	

Reference	Description	Picture
PWC	Charger for PWB plug-in battery Dimensions : 170 x 65 x 36 mm Power supply 12/24 Vdc, 7 W	
PWCB020	Standard charger for Beta2 transmitter Dimensions : 220 x 82 x 76 mm Power supply 12/24 Vdc, 7 W	
PWCB021	Docking charger Beta2 with 2 Relays + 1 logical input + Buzzer Dimensions : 220 x 82 x 76 mm Power supply 12/24 Vdc, 7 W	
PWCB022	Docking charger Beta2 with 1 Relay + 4 logicals inputs + Buzzer Dimensions : 220 x 82 x 76 mm Power supply 12/24 Vdc, 7 W	
PWCB06M	Mechanical support for Beta6 Dimensions : 272 x 82 x 76 mm	
PWCB060	Standard charger for Beta6 transmitter Dimensions : 272 x 82 x 76 mm Power supply 12/24 Vdc, 7W	
PWCB061	Docking charger Beta6 with 2 Relays +1 logical input + Buzzer Dimensions : 272 x 82 x 76 mm Power supply 12/24 Vdc, 7 W	
PWCB062	Docking charger Beta6 with 1 Relay + 4 logicals inputs + Buzzer Dimensions : 272 x 82 x 76 mm Power supply 12/24 Vdc, 7W	
PWB	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	

Reference	Description	Picture
UBCU	110-240 Vac / 12 Vdc Adapter with European, UK and US plugs For charger PWC, PWCB02x, PWCB06x	
PWA4	Cigarette lighter socket 12-24 Vdc. For charger PWC, PWCB02x, PWCB06x	
PWT17	Female M12 connector 4/5 pins with 2 m cable - Auxiliary Beta plug - M12 Timo Plug	
UWE002	4 Self-adhesive directional colored arrows (4 x 122 x 180 mm)	
UWE202	6 label kit arrows color	
UWE205	48 blank label kit	
UWE207	Kit 90 labels buttons black & white	