

COMPACT

ERGONOMIC



Pika

TRANSMITTER

Pika transmitter adapts to the application to make the process more efficient. This easy-to-use remote control gives incomparable freedom of movement, high motion accuracy, and higher productivity while providing best operators' safety. With Pika 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 display for look-up, selection, validation, configuration...
- > Compact, super-ergonomic unit.
- > 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).
- > Plug-in battery and industrial charger.

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)



BIDIRECTIONAL RADIO LINK

OPTIONAL STARTUP VALIDATION BY IR
OPTIONAL WORK AREA LIMITATION

OPTIONAL CROSS-LOCKING SYSTEM

OPTIONAL PERSONALIZED FRONT PLATE

STANDARD JOYSTICKS WITH 1 TO 4 NOTCHES OR PROPORTIONAL CONTROL

OPTIONAL SECURE INTENTIONAL-ACTION JOYSTICKS

EMERGENCY STOP PALMSWITCH SIL 3 - PL e

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

MULTIMODES OPTION

4 FUNCTION BUTTONS

ON / VALIDATION BUTTON

NAVIGATION BUTTONS



POSITIONS FOR « TOGGLE » SWITCHES

1-JOYSTICK MODEL

OPTIONAL INDUSTRIAL CONNECTOR C16 / 4 POINTS TO CONNECT 2 DRY CONTACTS OR C16 / 7 POINTS FOR WIRE CONNECTION WITH TIMO, NEMO, ALTO

OPTIONAL AUXILIARY PUSHBUTTON

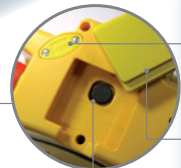
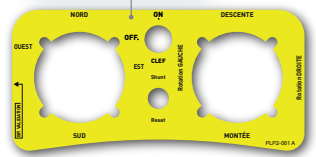
OPTIONAL AUTOMATIC DETECTION OF INACTIVITY «DEAD MAN»

2-JOYSTICK MODEL

OPTIONAL VIBRATOR (ALARM)

BREATHABLE MEMBRANE TO PREVENT CONDENSATION

FUNCTION LABELS
SEALED USB INTERFACE FOR DIAGNOSIS, CONFIGURATION
HIGH-CAPACITY PLUG-IN BATTERY



DESCRIPTION

The transmitter comes with:

- > **Transmitter^(a) with 1 joystick or 2 joysticks:**
4 function pushbuttons^(b)
+ 2 positions for additional switches^(c)

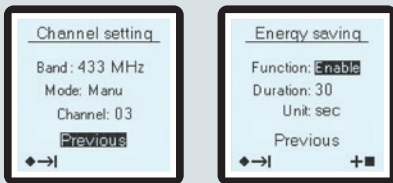
^(a) Each version has 2 navigation pushbuttons, 1 «On/Validation» pushbutton and 1 emergency stop palmswitch.

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

^(c) You can choose from among the following control components :

- key selector switches
- selector switches with 2 fixed positions
- 2-position buttons with return to initial position
- selector switches with 3 fixed positions
- 3-position buttons with return to initial position
- 3-position buttons with 2 fixed positions + 1 return to initial position
- rotary selector switches with 4 to 12 positions
- potentiometer

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



- > Screen language
- > Transceiver which you want to use
- > Radio transmit frequency and power
- > Duration of the « standby » time delay (automatically stops transmitter and associated receivers 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 polyamide
Water tightness	IP65
Weight (with battery)	1 joystick: 1300 g 2 joysticks: 1400 g
Dimensions	243 x 180 x 170 mm
Carried	by carrying belt by 2-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) with radio, 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
Manual / automatic	
Emission power	< 10 mW (license free)
Range limitation	10 selectable 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 get 1hr autonomy)
Charging temperature range	0 °C to +40 °C

FUNCTIONAL CHARACTERISTICS

Display	Backlit LCD display, 128 x 128 pixels 42 mm (W) x 40 mm (H)
USB interface for configuration and diagnosis	mini-B 5-point USB connector Easy access in a compartment on the level side of transmitter
Operating indications	On screen (radio link status, battery status, status of buttons, information feedbacks...)
Function buttons	4 pushbuttons (mounted around the screen) + 2 positions for switches
Navigation and startup buttons	2 pushbuttons to 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.).

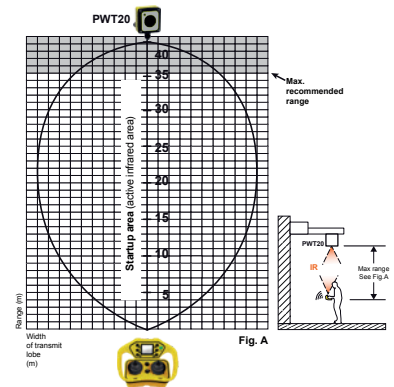
ADDITIONAL OPTIONS

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.

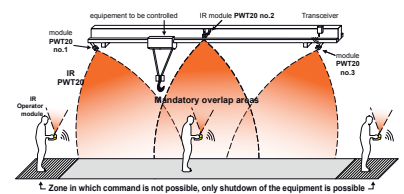
- The IR startup feature has a range of 35 m (see fig. A).



LIMITATION OF ACTION AREA BY INFRARED

The transmitter features 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 35 meters.



C16 INDUSTRIAL CONNECTOR FOR 2 DRY CONTACTS

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

C16 INDUSTRIAL CONNECTOR FOR WIRE CONNECTION

- 7 connection terminals
- male socket
- supplied with cap

ACCESSORIES

Reference	Description	Picture
UWE102	Removable 2-points shoulder strap	
PWM103	Carrying belt	
PWM112	Carrying harness for Pika or Moka transmitter	
PWC	Charger for PWB plug-in battery Dimensions : 170 x 65 x 36 mm Power supply 12/24 Vdc, 7 W	
PWCPM01	Docking Station Pika/Moka with 2 Relays + 1 logical input + Buzzer Dimensions : 274 x 159 x 170 mm Power supply 12/24 Vdc, 7W Warning, compatible with all Pika & Moa transmitter equipped with charging contacts	
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	
UBCU	110-240 Vac / 12 Vdc Adapter with European, UK and US plugs For charger PWC, PWCPM01	
PWA4	Cigarette lighter socket 12-24 Vdc. For charger PWC, PWCPM01	
PWL010	10 m cable for wired link	
PWT17	Female M12 connector 4/5 pins with 2 m cable - Auxiliary Beta plug - M12 Timo Plug	
PWE01	Rotary switches 2 positions with standard metal key "Pika-Moka" for metal box	
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	

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MODULAR

MULTIFUNCTION

Moka

TRANSMITTER

Moka transmitter adapts to the application to make the process more efficient. This easy-to-use remote control gives incomparable freedom of movement, high motion accuracy, and higher productivity while providing best operators' safety. With Moka 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 display for look-up, selection, validation, configuration...
- > Modular unit with wide ranging choice of functions.
- > 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).
- > Plug-in battery and rugged industrial charger.

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
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 FCC part 15
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OPTIONAL STARTUP VALIDATION BY IR
OPTIONAL WORK AREA LIMITATION

MULTIMODES OPTION



EMERGENCY STOP PALMSWITCH
SIL 3 - PL e

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

FUNCTION LABELS

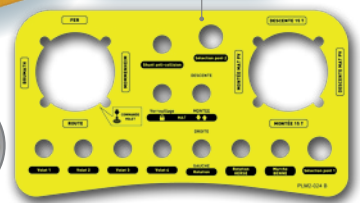


BIDIRECTIONAL RADIO LINK

OPTIONAL CROSS-LOCKING SYSTEM

2-JOYSTICK MODEL

OPTIONAL PERSONALIZED FRONT PLATE



STANDARD JOYSTICKS WITH 1 TO 4 NOTCHES OR PROPORTIONAL CONTROL



OPTIONAL INTENTIONAL-ACTION JOYSTICKS



POSITIONS FOR SWITCHES IN THE CHOICE

4 FUNCTION BUTTONS

ON / VALIDATION BUTTON

NAVIGATION BUTTONS

3-JOYSTICK MODEL



OPTIONAL AUXILIARY PUSHBUTTON

OPTIONAL C16 4 POINTS CONNECTOR TO CONNECT TWO DRY CONTACTS

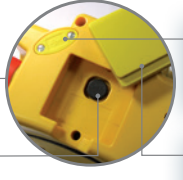
OPTIONAL C16 7 POINTS INDUSTRIAL CONNECTOR FOR WIRE CONNECTION

OPTIONAL AUTOMATIC DETECTION OF INACTIVITY «DEAD MAN»

6-PROPORTIONAL LEVERS MODEL

OPTIONAL VIBRATOR (ALARM)

BREATHABLE MEMBRANE TO PREVENT CONDENSATION



SEALED USB PORT FOR DIAGNOSIS, CONFIGURATION

HIGH-CAPACITY PLUG-IN BATTERY

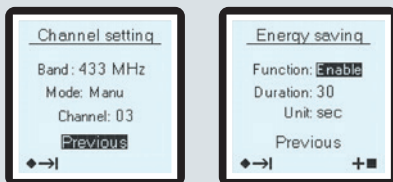
DESCRIPTION

The transmitter comes with:

- **Transmitter^(a) with 2 joysticks:**
4 function pushbuttons^(b)
+ 12 positions additional switches^(c)
- **Transmitter^(a) with 3 joysticks:**
4 function pushbuttons^(b)
+ 8 positions for additional switches^(c)
- **Transmitter^(a) with 6 proportional levers:**
4 function pushbuttons^(b)
+ 8 positions for additional switches^(c)
- **Autres configurations en spécial**

- ^(a) Each version has 2 navigation pushbuttons, 1 On / Validation» pushbutton and 1 emergency stop palm-switch.
- ^(b) The pushbuttons can be configured as selectors for 2, 3 or «n» positions with status indication on the screen.
- ^(c) Choose among the following control components:
- key selector switches
 - selector switches with 2 fixed positions
 - 2-position buttons with return to initial position
 - selector switches with 3 fixed positions
 - 3-position buttons with return to initial position
 - 3-position buttons with 2 fixed positions + 1 return to initial position
 - rotary selector switches with 4 to 12 positions
 - potentiometer (for 2-joystick model)

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 allows to view:

- 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** and **Nemo** receivers to be defined according to the application.

TECHNICAL CHARACTERISTICS

MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

Housing material	shock-proof polyamide
Water tightness	IP65
Weight (with battery)	from 1700 g to 1800 g depending on configurations
Dimensions	297 x 215 x 170 mm
Carried	by carrying belt by 2-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) with radio 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	10 selectable 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 get 1hr autonomy)
Charging temperature range	0 °C to +40 °C

FUNCTIONAL CHARACTERISTICS

Display	Backlit LCD display, 128 x 128 pixels 42 mm (W) x 40 mm (H)
USB interface for configuration and diagnosis	mini-B 5-point USB connector Easy access in a compartment on the back side of the transmitter
Operating indications	On screen (radio link status, battery status, status of buttons, information feedbacks...)
Function buttons	4 pushbuttons (mounted around the screen) + up to 12 positions for switches depending on number of joysticks
Navigation and startup buttons	2 pushbuttons to 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)

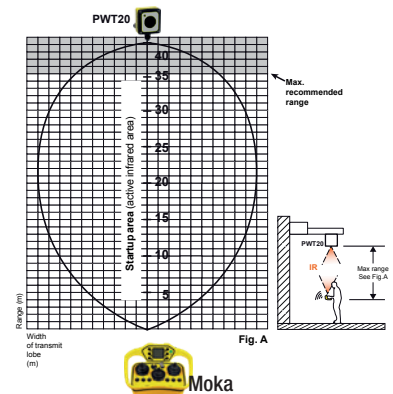
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ADDITIONAL OPTIONS

STARTUP VALIDATION BY IR

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

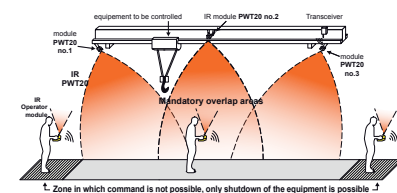
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- The IR startup feature has a range of 35 m (see fig. A).



LIMITATION OF WORK AREA BY INFRARED

The transmitter features 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 the PWT20 IR modules and the operator module is 35 meters.



C16 INDUSTRIAL CONNECTOR FOR 2 DRY CONTACTS

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

C16 INDUSTRIAL CONNECTOR FOR WIRE CONNECTION

- 7 connection terminals
- male socket
- supplied with cap

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