Moka

OPERATOR MODULE

The Moka operator module adapts to your application to make your process more efficient. This easy-to-use module gives you incomparable freedom of movement, precise quality manoeuvres, and higher productivity while ensuring your operators' safety. With the Beta 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 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 diagnostic aid system (information on screen, iDialog analysis software).

→ Plug-in battery and rugged industrial charger.

FULLY COMPLIANT WITH EUROPEAN DIRECTIVES :

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

No 44 250 11 382580 005

Radio and telecommunication terminal equipment
(low voltage, electromagnetic compatibility, radio spectrum)
R&TTE 99/5/EC
ARCEP certificate

OPTIONAL STARTUP
BY IR VALIDATION

OPTIONAL ACTION
AREA LIMITATION

OPTIONAL
MULTIMODES

EMERGENCY STOP
PALMSWITCH
SIL 3 - PL e

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

BIDIRECTIONAL
RADIO LINK
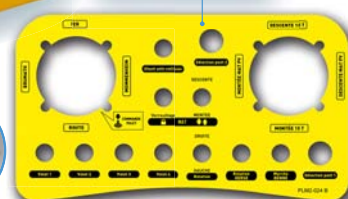
FUNCTION LABELS

2-JOYSTICK MODEL

OPTION
PERSONALIZED
FRONT PLATE

OPTIONAL
CROSS-LOCKING
SYSTEM

STANDARD
JOYSTICKS WITH
1 TO 4 NOTCHES
OR PROPORTIONAL
CONTROL

OPTIONAL
INTENTIONAL-
ACTION JOYSTICKS

3-JOYSTICK MODEL

POSITIONS
FOR « TOGGLE »
CONTROL SWITCHES
IN THE CHOICE

4 FUNCTION
BUTTONS

ON/VALIDATION
BUTTON

NAVIGATION
BUTTONS

OPTIONAL
AUXILIARY PUSHBUTTON

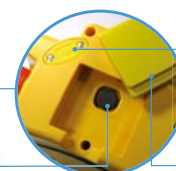OPTION
C16 4 POINTS CONNECTOR
FOR CONNECTING TWO DRY
CONTACTS

OPTION
C16 7 POINTS INDUSTRIAL
CONNECTOR FOR WIRE
CONNECTION

**6-PROPORTIONAL
LEVERS MODEL**

OPTION
AUTOMATIC DETECTION OF
INACTIVITY
«DEAD MAN»

OPTIONAL
ISOLATED WORKER
ALARM SYSTEM

OPTIONAL
VIBRATOR (ALARM)

BREATHABLE MEMBRANE
PREVENTS
CONDENSATION

SEALED USB PORT
FOR DIAGNOSTICS,
CONFIGURATION

HIGH-CAPACITY
PLUG-IN BATTERY

DESCRIPTION

The operator module comes in 3 housing versions:

→ **Operator module[a] with 2 joysticks :**
4 function pushbuttons[b]
+ 12 positions for control components of your choice[c]

→ **Operator module[a] with 3 joysticks:**
4 function pushbuttons[b]
+ 8 positions for control components of your choice[c]

→ **Operator module[a] with 6 proportional levers :**
4 function pushbuttons[b]
+ 8 positions for control components of your choice[c]
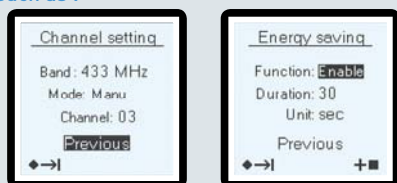
→ **Autres configurations en spécial**

[a] Each version has 2 navigation pushbuttons, 1 On/Valida-tion» pushbutton and 1 emergency stop palmswitch.

[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 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)
→ The different 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 max feedback with 10 labels / feedback and max 48 labels in total)
- Alarms (8 for application use + 8 for system)

Compatibility:

These operator modules work with **Elio**, **Alto**, **Timo** transceivers to be defined according the application.

TECHNICAL CHARACTERISTICS

MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

Housing material	shock-proof polyamide
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 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
Manual / automatic	12 frequencies on 869 MHz band
	64 frequencies on 911-918 MHz band
Transmit power	<10 mW (license free)
Range limitation	10 power levels, configurable
Modulation	FM
Average range [1]	100 m in industrial space [1]
	300 m in open space [1]
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 display, 128 x 128 pixels
	42mm (L) x 40mm (H)
USB interface for configuration and diagnostics	mini-B 5-point 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	4 pushbuttons (mounted around the screen)
	+ up to 12 positions
	for control components of your choice
	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-definable time delay
	(from 1 s to infinity)

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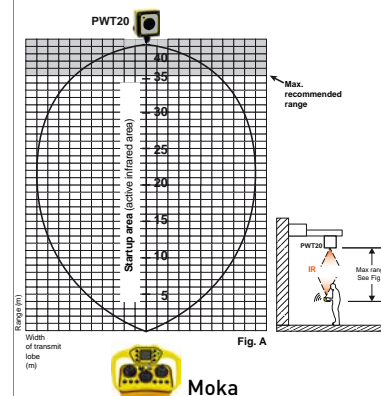
ADDITIONAL OPTIONS

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.
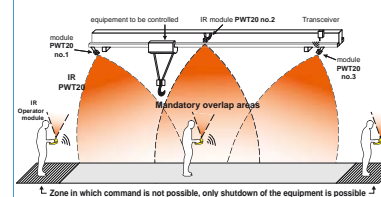
- The IR startup feature has an action range of 0 to 35 m (see fig. A).

Fig. A

LIMITATION OF ACTION AREA BY INFRARED

The operator module is equipped 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 range guarantied between the PWT20 IR modules and the operator module is 35 meters.

C16 INDUSTRIAL CONNECTOR FOR 2 DRY CONTACTS

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

C16 INDUSTRIAL CONNECTOR FOR WIRE CONNECTION

- 7 connection points
- male socket
- supplied with cap

Battery charger

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

Plug-in battery for operator module

Reference : PWB
Dimensions : 57x56x16 mm
Voltage : 3,7V
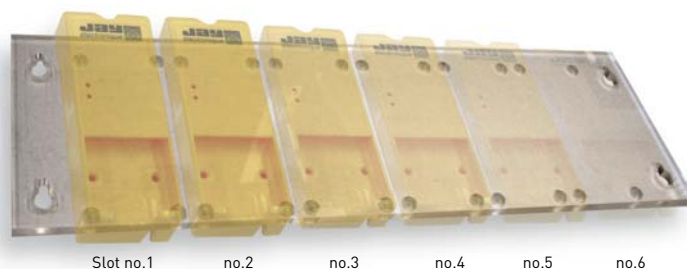Capacity : 1900mA
Technology : lithium Ion

Mains adapter for battery charger

Reference : UBCU
Dimensions : 41x72x39 mm
Power supply : 115-230VAC
Output : 12VDC
Power : 7 w

Cigarette lighter plug adapter for battery charger

Reference : PWA4
Dimensions : 90x20x20 mm
Power supply : 12-24VDC
Output : Power supply

Rack for battery chargers (6 positions)
Sold without charger

Reference : PWR
Dimensions : 470x147x8 mm

Slot no.1   no.2   no.3   no.4   no.5   no.6

Mains power adapter for rack

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

Removable shoulder strap
Reference : UWE102

Carrying belt
Reference : PWM103

Key switch No. 2D138 diameter 22 for cabinet
Reference : PWE01

Cable for wire connection between operator module and transceiver

Reference : PWL010
Length : 10 meters
Equipped with a C16 female connector on one side and a C16 male connector on the other side

C16 male 4 points industrial connector Kit to be screwed

Reference : PWM202

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