

Remotus

Robust radio remote control for safety critical industrial applications



NAME: Remotus Jupiter Era 8B.
SPECIALITY: Radio remote control
for overhead crane
READY FOR MISSION: 2015



NAME: Remotus Jupiter Era 100J.
SPECIALITY: Radio remote control
for industrial crane
READY FOR MISSION: 2015







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POLARDON

NAME: Åkerströms Björbo AB, Sweden.
FOUNDED: 1918.
Åkerströms develops robust radio remote control products for demanding environments.



WELCOME TO THE REAL WORLD.

Our products are right at home in extreme environments. When other products give up, ours just keep on going without complaint. Rugged, reliable remote control for industrial and mobile applications, designed for constant use. Whenever. Wherever. In the real world.

Today we are an international company that develops, manufactures, markets, and services robust wireless products for demanding industrial environments and mobile applications. Our entire range is distinguished by excellent ergonomics and design. We are scattered far and wide geographically, but we value personal contact with our customers above all. This brochure contains information on our radio remote control for safety-critical industrial applications: **Remotus**

Remotus Jupiter is our robust standardized remote-control product line developed for most of today's industrial cranes and overhead cranes, used, for example, in manufacturing, steel works, mines, and processing industries. The system has pre-programmed selections and works on the general frequency bands, so users can easily install and start up the system.

The Remotus Jupiter line has many different transmitters to choose from depending on usage area. **Jupiter Era** is the name of the latest model.

Remotus Jupiter Era

The Jupiter Era waist transmitters have a modern, rugged design. They have rubberized handles for a good grip and they also stand firmly on their protective metal feet when not in use. The Jupiter Era handheld transmitters have a modern, ergonomic design, clear display, and LEDs near each button that indicate the selected function. The Era models are lightweight and easy to carry.

Dual CPUs for superior safety

Jupiter Era waist transmitters have dual CPUs, which means superior safety, even with movements/functions. They have an active stop function, which means the receiver will stop in less than 100 ms. The waist transmitter has a built-in tilt function, which means that it stops if you fall. The system uses the general frequency bands at 418-419 MHz, 433-434 MHz, 863-870 MHz, and 915-928 MHz. A user can maneuver several objects from the same transmitter (multi-crane operation), and several users can maneuver one object from several transmitters (multi-operator operation). A duplex function enables data transmission back to the transmitter.

Configurable display with alarm function

The Jupiter Era 100/150 have a large, clear display that is easy to read, even in bright sunlight. The transmitters also have a vibrator and buzzer, which can be individually configured to different alarm events via the display menu. The display's backlighting can also shift to red with different alarms that can be chosen from the menu. The Jupiter Era 90 has no display or alarm function. The waist transmitter has a unique battery solution where the battery is well protected from water and dust in a replaceable module whose opening is located directly below the transmitter. The transmitter can be placed in deep water without affecting the battery.

Easily configured and functional

Configuration of button functions, frequency, shutdown time, and permanent/temporary functions is done from the pushbuttons or display. The waist transmitters can also be configured via our proprietary configuration tool. A configuration information module (CIM) card stores the transmitter's configuration. The transmitter's configuration can thereby be easily moved to another transmitter. The CIM card is secured during operation but is easily accessible for service.

The safety stop function in the Remotus Jupiter line is certified according to PL d, Cat 3, EN ISO 13849-1.



REMOTUS JUPITER

Remotus Jupiter is our standardized remote-control product line developed for most of today's industrial cranes and overhead cranes.

REMOTUS

Jupiter Era — Waist transmitters

Jupiter Era waist transmitters are easy to use and have a well-thought-out, robust design. The transmitters are equipped with rubberized handles for optimum grip, and when the transmitter is not in use it stands firmly on its metal feet. There are three different transmitters available: two simpler versions that handle three movements at two speeds and contain two extra functions, and another that is a more sophisticated version that handles three movements at two speeds and contains five extra functions. The Jupiter Era 100/150 come standard with a graphic display and a built-in vibrator and buzzer that can be configured for different alarm events. The graphical display has a simple setup menu for setting the selected values. All models are available with Nordic* or DIN symbols*.

REMOTUS Jupiter Era 90

No. of functions: Three movements at two speeds and two extra functions	Range: Up to 200 m
Type of transmission: FM GMSK	Antenna: Internal
Transmission speed: 9 600 baud	Battery: 3.7 V/1.9 Ah
Ambient temperature: -25°C to +55°C	Operating time: about 14 hours
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Protection class: IP65-67
Output power: 10 mW (433-434 MHz) 5 mW (863-870 MHz)	Dimensions: 260 x 165 x 150 mm
Art. no. Jupiter Era 90J Nordic*: Jupiter Era 90J DIN*:	Weight: 1.3 kg 949767-400/800 949767-401/801



REMOTUS Jupiter Era 100

No. of functions: Three movements at two speeds and two extra functions	Antenna: Internal
Type of transmission: FM GMSK	Battery: 3.7 V/1.9 Ah
Transmission speed: 9 600 baud	Operating time: about 14 hours
Ambient temperature: -25°C to +55°C	Protection class: IP65-67
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Dimensions: 260 x 165 x 150 mm
Output power: 10 mW (433-434 MHz) 5 mW (863-870 MHz)	Weight: 1.3 kg
Range: Up to 200 m	Display type: Graphic LCD, 128x64 pixels
Art. no. Jupiter Era 100J Nordic*: Jupiter Era 100J DIN*:	Art. no. 949768-400/800 949768-401/801



*Nordic symbols *DIN symbols
↑ □ ○ □ ▼ ▲

REMOTUS Jupiter Era 150

No. of functions:

Three movements at two speeds and five extra functions

Type of transmission:

FM GMSK

Transmission speed:

9 600 baud

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Output power:

10 mW (433-434 MHz)
5 mW (863-870 MHz)

Range:

Up to 200 m

Art. no.

Jupiter Era 150J Nordic*:
Jupiter Era 150J DIN*:

Antenna:

Internal

Battery:

3.7 V/1.9 Ah

Operating time:

about 14 hours

Protection class:

IP65-67

Dimensions:

260 x 165 x 150 mm

Weight:

1.3 kg

Display type:

Graphic LCD, 128x64 pixels



*Nordic symbols



*DIN symbols



REMOTUS

Jupiter Era — Handheld transmitters

Jupiter Era handheld transmitters have a modern and robust design. The transmitters weigh only 265 grams and fit easily in your hand. They are IP67 classified, which means they are completely dust and waterproof. They have large, easy-to-read two-stage buttons that enable double functions on each push-button. Era 8B is available incl or excl LCD. A separate LED indicates storage battery status and operation and all models except Era 8B (excl LCD) have LEDs at each button that indicate the selected function. The output of the transmitters is adaptive, i.e. if the signal strength is strong, then both transmitter and receiver “downshift” to a lower output. The transmitters are available with Nordic* or DIN* symbols.

REMOTUS Jupiter Era 8B

No. of buttons:
8 two-stage buttons

Type of transmission:
FM GMSK

Transmission speed:
9 600 baud

Ambient temperature:
-25°C to +55°C

Radio frequencies:
418-419 MHz, 433-434 MHz,
863-870 MHz, 915-928 MHz

Output power:
10 mW (433-434 MHz)
5 mW (863-870 MHz)

Antenna:
Internal

Art. no.
Jupiter Era 8B Nordic*:
Jupiter Era 8B DIN*:

Battery:
3.7 V/1.9 Ah

Operating time:
40 hours

Protection class:
IP67

Dimensions:
183 x 67 x 45 mm

Weight:
265 g

Display type:
Graphic, 128x64 pixels. Up to
four numerical values with unit
can be displayed simultaneously.
The values can be displayed
numerically or as bars.

950193-400/800
950285-400/800



REMOTUS Jupiter Era 8B (excl LCD)

No. of buttons:
8 two-stage buttons

Type of transmission:
FM GMSK

Transmission speed:
9 600 baud

Ambient temperature:
-25°C to +55°C

Radio frequencies:
433-434 MHz

Output power:
10 mW

Antenna:
Internal

Art. no.
Jupiter Era 8B excl LCD DIN*:

Battery:
3.7 V/1.9 Ah

Operating time:
40 hours

Protection class:
IP67

Dimensions:
183 x 67 x 45 mm

Weight:
265 g

950884-400



*Nordic symbols



*DIN symbols



REMOTUS Jupiter Era 6B

No. of buttons:
6 two-stage buttons

Type of transmission:
FM GMSK

Transmission speed:
9 600 baud

Ambient temperature:
-25°C to +55°C

Radio frequencies:
433-434 MHz

Output power:
10 mW

Antenna:
Internal

Art. no.

Jupiter Era 6B Nordic*:
Jupiter Era 6B DIN*:

Battery:
3.7 V/1.9 Ah

Operating time:
40 hours

Protection class:
IP67

Dimensions:
183 x 67 x 45 mm

Weight:
265 g

Display type:
Graphic, 128x64 pixels. Up to four numerical values with unit can be displayed simultaneously. The values can be displayed numerically or as bars.

950269-400
950284-400



REMOTUS Jupiter Era 4B

No. of buttons:
4 two-stage buttons

Type of transmission:
FM GMSK

Transmission speed:
9 600 baud

Ambient temperature:
-25°C to +55°C

Radio frequencies:
433-434 MHz

Output power:
10 mW

Antenna:
Internal

Art. no.

Jupiter Era 4B Nordic*:
Jupiter Era 4B DIN*:

Battery:
3.7 V/1.9 Ah

Operating time:
40 hours

Protection class:
IP67

Dimensions:
183 x 67 x 45 mm

Weight:
265 g

Display type:
Graphic, 128x64 pixels. Up to four numerical values with unit can be displayed simultaneously. The values can be displayed numerically or as bars.

950270-400
950283-400



*Nordic symbols



*DIN symbols



REMOTUS

Jupiter — Handheld transmitters

Jupiter hand held transmitters are developed for indoor and outdoor use. The transmitters are robust and designed with large, clearly, visible, rugged buttons. A protective rubber bumper makes them extra shock resistant. Jupiter 8B/10B have 8/10 two-stage buttons that enable double functions for each pushbutton. Jupiter 10B has a trolley selection function. Jupiter 9B RS has 9, two-stage buttons and a rotary switch, and can be programmed for up to 18 functions in 4 positions. LEDs on each button indicate selected function and a separate LED indicates storage battery status and operation. The transmitters are available with Nordic* or DIN* symbols. Jupiter 9B RS and 10B are available with or without graphic display.

REMOTUS Jupiter 8B

No. of buttons: 8 two-stage buttons	Antenna: Internal
Type of transmission: FM GMSK	Battery: 3.7 V/1.9 Ah
Transmission speed: 9 600 baud	Operating time: ca 13 hours
Ambient temperature: -25°C to +55°C	Protection class: IP65
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Dimensions: 243 x 77 x 41 mm
Output power: 10 mW (433-434 MHz) 5 mW (863-870 MHz)	Weight: 480 g
Art. no. Jupiter 8B Nordic*: Jupiter 8B DIN*:	945696-800 946091-800



REMOTUS Jupiter 10B

No. of buttons: 10 two-stage buttons	Battery: 3.7 V/1.9 Ah
Type of transmission: FM GMSK	Operating time: ca 13 hours
Transmission speed: 9 600 baud	Protection class: IP65
Ambient temperature: -25°C to +55°C	Dimensions: 243 x 77 x 41 mm
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Weight: 520 g
Output power: 10 mW (433-434 MHz) 5 mW (863-870 MHz)	Display type: Graphic, 102x64 pixels. Up to four numerical values with unit can be displayed simultaneously. The values can be displayed numerically or as bars.
Antenna: Internal	
Art. no. Jupiter 10B Nordic*: Jupiter 10B Nordic* Display:	945697-800 947703-800
Art. no. Jupiter 10B DIN*: Jupiter 10B DIN* Display:	946093-800 947704-800



*Nordic symbols *DIN symbols



REMOTUS Jupiter 9B RS

No. of buttons:

9 two-stage buttons and a rotary switch with 4 positions

Type of transmission:

FM GMSK

Transmission speed:

9 600 baud

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz,
863-870 MHz, 915-928 MHz

Output power:

10 mW (433-434 MHz)
5 mW (863-870 MHz)

Antenna:

Internal

Art. no.

Jupiter 9B RS Nordic*

Jupiter 9B RS Nordic* Display:

Jupiter 9B RS DIN*

Jupiter 9B RS DIN* Display:

Battery:

3.7 V/1.9 Ah

Operating time:

ca 13 hours

Protection class:

IP65

Dimensions:

243 x 77 x 41 mm

Weight:

520 g

Display type:

Graphic, 102x64 pixels. Up to four numerical values with unit can be displayed simultaneously. The values can be displayed numerically or as bars.



*Nordic symbols



*DIN symbols



REMOTUS

Jupiter — Receivers

The Jupiter RX160/110 are robust receivers pre-programmed with different application programs. They are easy to install and start up. Configurations and settings are easily made with our proprietary configuration tool (RX160). The receivers have a multi-transformer for universal use. RX160 has an analogue input for reading selected values, for example, in a display. The selected values are formatted using the configuration tool. The receivers have dual processors that monitor each other, so a message is checked before the relay function goes out into the receiver. Command errors don't occur and safety increases. The receivers are of protection class IP67. Siren optional. The RX160 is compatible with all Jupiter transmitters, RX110 with Era 8B excl LCD.

REMOTUS Jupiter RX160

No. of outputs:

16 outputs; 4 changeover and 12 open contacts of which 6 safety relays

Outputs for emergency stop:

2 safety relays; 2 changeover contacts

Number of inputs:

1 analogue input
0(4)-20 mA or 0/2-10 V
1 serial input: RS422/RS485
2 opto isolated digital inputs for 24/48 V AC/DC, 115 V AC or 230 V AC 50/60 Hz

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Art. no.

Jupiter RX160
Jupiter RX160, Siren
Siren kit

Power consumption:

max 12 VA

Ambient temperature:

-25°C to +55°C

Casing:

Flameproof plastic (UL 94 5VA)

Protection class:

IP67

Dimensions:

277 x 217 x 115 mm

Weight:

1.5 kg

Connection voltage:

24/48/115/230 V AC or 24 V DC



REMOTUS Jupiter RX110

No. of outputs:

11 outputs; of which 1 safety relay

Radio frequency:

433-434 MHz,

Power consumption:

max 12 VA

Ambient temperature:

-25°C to +55°C

Casing:

Flameproof plastic (UL 94 5VA)

Protection class:

IP67

Art. no.

Jupiter RX110

Dimensions:

277 x 217 x 115 mm

Weight:

1.5 kg

Connection voltage:

24/48/115/230 V AC or 24 V DC





Remotus Mercury is our robust, customized remote control product line for industrial cranes and overhead cranes, for use in industries such as manufacturing, steel works, mines, and processing.

The Remotus Mercury line is constructed to provide the safety and reliability required for wireless remote control in demanding industrial environments. The products in the Mercury line are tailored to the customer's wishes, with customized functions and layout. A variety of actuators are available.

Remotus Mercury Era

The Mercury Era 100 waist transmitter has a modern, rugged design. It has rubberized handles for a good grip and stands firmly on its protective metal feet when not in use. The Mercury Era 8B handheld transmitter has eight buttons, a modern, ergonomic design, clear display, and LEDs near each button that indicate the selected function. Mercury Era 8 can be equipped with customized symbols and is very easy to carry.

Dual CPUs for superior safety

The Mercury Era 100 has dual CPUs, which means superior safety, even with movements/functions. It has an active stop function, which means the receiver will stop in less than 100 ms. The Mercury Era 100 has a built-in tilt function, which means that it stops if you fall. Mercury uses the frequency bands 418-419 MHz, 433-434 MHz, 863-870 MHz, and 915-928 MHz, and also licensed bands on request. There are several functions for automatically connecting transmitter and receiver on an available frequency and for sharing the same frequency band. A user can

maneuver several objects from the same transmitter (multi-crane operation), and several users can maneuver one object from several transmitters (multi-operator operation). A duplex function enables data transmission back to the transmitter.

Configurable display with alarm function and a unique battery solution

The Mercury Era 100 has a large, clear display that is easy to read even in bright sunlight. It also has a vibrator and buzzer, which can be individually configured to different alarm events via the display menu. The display's backlighting can also shift to red with different alarms that can be chosen from the menu. The transmitter has an unique battery solution where the battery is well protected from water and dust in a replaceable module whose opening is located directly below the transmitter. The transmitter can be placed in deep water without affecting the battery.

Portable configuration and RFID

A configuration information module (CIM) card stores the transmitter's configuration, so it can be easily moved to another transmitter. The CIM card is secured during operation but is easily accessible for service. The Mercury Era 100 has optional RFID capabilities.

The safety stop function in the Remotus Mercury line is approved according to PL d, Cat 3, EN ISO 13849-1.

REMOTUS Mercury 500



REMOTUS MERCURY

Remotus Mercury is our customized remote-control product line for industrial cranes and overhead cranes.

REMOTUS

Mercury — Waist transmitters

Remotus Mercury waist transmitters are built to handle everything from standard solutions to highly sophisticated machine control. They are available in three basic designs that can be customized to fit the needs of the customer. The transmitters are built to tolerate tough conditions, including impacts, drastic temperature fluctuations, dust, oil, and humidity. The waist transmitters can be equipped with up to four joysticks that can control up to eight movements. They can also be equipped with indicators and a display for showing different types of information from the crane via the duplex function. The article numbers for Mercury waist transmitters are customer specific.

REMOTUS Era Mercury 100

No. of functions:

Up to six movements, 2-position, 4-position, or stepless joystick (max two joysticks)

Type of transmission:

FM FSK/FM GMSK

Transmission speed:

4 800-19 200 baud depending on choice of radio

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Output power:

Varies depending on application and licensing limitations. Usually 10 to 400 mW.

Range:

Up to 1 000 m

Antenna:

Internal

Battery:

3.7 V/1.9 Ah

Operating time:

ca 14 hours

Protection class:

IP65-67

Dimensions:

260 x 165 x 150 mm

Weight:

1.3 kg

Display type:

Graphic LCD, 128x64 pixels



REMOTUS Mercury 100

No. of functions:

Up to six movements, 2-position, 4-position, or stepless joystick (max two joysticks)

Type of transmission:

FM FSK/FM GMSK

Transmission speed:

4 800-19 200 baud depending on choice of radio

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Output power:

Varies depending on application and licensing limitations. Usually 10 to 400 mW.

Range:

Up to 1 000 m

Antenna:

Internal

Battery:

7.2 V / 1.0 Ah

Operating time:

ca 10 hours

Dimensions:

230 x 155 x 135 mm

Weight:

1.2 kg

Display type:

LCD, 1 row 8 characters, 1-3 rows 16 characters/row



REMOTUS Mercury 300

No. of functions:

Up to six movements, 2-position, 4-position, or stepless joystick (max three joysticks)

Type of transmission:

FM FSK/FM GMSK

Transmission speed:

4 800-19 200 baud depending on choice of radio

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Output power:

Varies depending on application and licensing limitations. Usually 10 to 400 mW.

Range:

Up to 1 000 m

Antenna:

Internal

Battery:

6 V / 2.4 Ah

Operating time:

ca 10 hours

Dimensions:

250 x 175 x 160 mm

Weight:

1.2 kg

Display type:

LCD, 1 row 8 characters, 1-3 rows 16 characters/row, 8 LEDs



REMOTUS Mercury 500

No. of functions:

Up to eight movements, 2-position, 4-position or stepless joystick (max four joysticks)

Type of transmission:

FM FSK/FM GMSK

Transmission speed:

4 800-19 200 baud depending on choice of radio

Ambient temperature:

-25°C to +55°C

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Output power:

Varies depending on application and licensing limitations. Usually 10 to 400 mW.

Range:

Up to 1 000 m

Antenna:

Internal

Battery:

6 V / 2.4 Ah

Operating time:

ca 10 hours

Dimensions:

340 x 175 x 160 mm

Weight:

2.5 kg

Display type:

LCD, 1 row 8 characters, 1-3 rows 16 characters/row, 8 LEDs



REMOTUS

Mercury — Handheld transmitters

Mercury handheld transmitters are made for indoor and outdoor use. The transmitters are robust and designed with large, clearly visible, durable two-stage buttons, providing dual functions on each pushbutton. The buttons are designed to be used with gloves. The Mercury Era 8B is very flexible, weighs only 265 grams. The transmitters are available with customer-specific symbols. LEDs on each button indicate the selected function and a separate LED indicates storage battery status and operation. The Mercury 9B RS has a rotary switch and can be programmed for up to 18 functions/commands in 4 positions. The Mercury Era 8B comes standard with a graphic display. Mercury 10B/9B RS/12B are available with or without graphic display.

REMOTUS Era Mercury 8B

No. of buttons: 8 two-stage buttons	Battery: 3.7 V/1.9 Ah
Type of transmission: FM GMSK	Operating time: 40 hours
Transmission speed: 9,600 baud (863-870 MHz)	Protection class: IP67
Ambient temperature: -25°C to +55°C	Dimensions: 183 x 67 x 45 mm
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Weight: 265 g
Output power: 10 mW (433-434 MHz) 5 mW (863-870 MHz)	Display type: Graphic, 128x64 pixels. Up to four numerical values with unit can be displayed simultaneously. The values can be displayed numerically or as bars.
Antenna: Internal	



REMOTUS Mercury 8B

No. of buttons: 8 two-stage buttons	Antenna: Internal
Type of transmission: FM FSK/FM GMSK	Battery: 3.7 V/1.9 Ah
Transmission speed: 4,800-19,200 baud depending on choice of radio	Operating time: about 13 hours
Ambient temperature: -25°C to +55°C	Protection class: IP65
Radio frequencies: 418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz	Dimensions: 243 x 77 x 41 mm
Output power: 10 to 400 mW	Weight: 510 g



REMOTUS Mercury 10B

No. of buttons:
10 two-stage buttons

Type of transmission:
FM FSK/FM GMSK

Transmission speed:
4,800-19,200 baud depending
on choice of radio

Ambient temperature:
-25 to +55°C

Radio frequencies:
418-419 MHz, 433-434 MHz,
863-870 MHz, 915-928 MHz

Output power:
10 to 400 mW

Antenna:
Internal

Battery:
3.7 V/1.9 Ah

Operating time:
about 13 hours

Protection class:
IP65

Dimensions:
243 x 77 x 41 mm

Weight:
520 g

Display type:
Graphic, 102x64 pixels. Up to four
numerical values with unit can
be displayed simultaneously. The
values can be displayed numerically
or as bars.



REMOTUS Mercury 9B RS

No. of buttons:
9 two-stage buttons and a rotary
switch with 4 positions

Type of transmission:
FM FSK/FM GMSK

Transmission speed:
4,800-19,200 baud depending
on choice of radio

Ambient temperature:
-25°C to +55°C

Radio frequencies:
418-419 MHz, 433-434 MHz,
863-870 MHz, 915-928 MHz

Output power:
10 to 400 mW

Antenna:
Internal

Battery:
3.7 V/1.9 Ah

Operating time:
about 13 hours

Protection class:
IP65

Dimensions:
243 x 77 x 41 mm

Weight:
520 g

Display type:
Graphic, 102x64 pixels. Up to
four numerical values with unit
can be displayed simultaneously.
The values can be displayed
numerically or as bars.



REMOTUS Mercury 12B

No. of buttons:
12 two-stage buttons

Type of transmission:
FM FSK/FM GMSK

Transmission speed:
4,800-19,200 baud depending
on choice of radio

Ambient temperature:
-25°C to +55°C

Radio frequencies:
418-419 MHz, 433-434 MHz,
863-870 MHz, 915-928 MHz

Output power:
10 to 400 mW

Antenna:
Internal

Battery:
3.7 V/1.9 Ah

Operating time:
about 13 hours

Protection class:
IP65

Dimensions:
243 x 77 x 41 mm

Weight:
490 g

Display type:
Graphic, 102x64 pixels. Up to
four numerical values with unit
can be displayed simultaneously.
The values can be displayed
numerically or as bars.



REMOTUS

Mercury — Actuators

The Mercury systems are tailored to customers' requirements. Functions, frequencies, design, and layout are all customized. Text and symbols are adapted and a large number of actuators are available. Remotus Mercury waist transmitters are equipped with two to four joysticks for controlling up to eight movements. They can also be equipped with indicators and a display for showing different types of information from the crane via the duplex function. Such information could be the weight of the load, wind conditions, etc.



REMOTUS Mercury — Example of actuators

Rotary switches



ROTARY SWITCH

4-POS Art. no. 830385-000
8-POS Art. no. 903359-000
10-POS Art. no. 903875-000
12-POS Art. no. 946332-000
16-POS Art. no. 946333-000



POTENTIOMETER

1k Ω Art. no. 946209-000

Pushbuttons



PUSHBUTTON 12 MM

111 BLACK Art. No. 917959-000
112 RED Art. No. 917959-001
113 GREEN Art. No. 917959-002



PUSHBUTTON 16 MM

BLACK Art. no. 939115-000
BLUE Art. no. 939115-001
RED Art. no. 939115-002
GREEN Art. no. 939115-003
YELLOW Art. no. 939115-004
WHITE Art. no. 939115-005
ORANGE Art. no. 939115-006



PUSHBUTTON 12 MM

Art. no. 939124-000



PUSHBUTTON WITH LED, LOCKING

RED Art. no. 930894-000
YELLOW Art. no. 930894-001
GREEN Art. no. 930894-002



PUSHBUTTON WITH LED, NON-LOCKING

RED Art. no. 933112-000
YELLOW Art. no. 933112-001
GREEN Art. no. 933112-002

Joysticks



ÅKERSTRÖMS' STANDARD JOYSTICK

Available as stepless or with various steps and directions



JOYSTICK, STEPLESS

3-AXIS Art. no. 944608-000
2-AXIS Art. no. 944608-100



JOYSTICK, STEPLESS

2-AXIS + BUTTON Art. no. 944608-200
1-AXIS + BUTTON Art. no. 944608-300

Toggle switches



1-0 LOCKING

Art. no. 710734-000
1-0-1 NON-LOCKING Art. no. 918794-000
1-0-1 LOCKING Art. no. 918935-000
1-0-1 LOCKING + NON-LOCKING Art. no. 918938-000

Toggle switches (Mercury Era 100)

1-0 LOCKING

Art. no. 949973-000
1-0-1 LOCKING Art. no. 949973-001
1-0-1 LOCKING + NON-LOCKING Art. no. 949973-007
1-0-1 NON-LOCKING Art. no. 949973-006



1-0 LOCKING

Art. no. 918936-000
1-0 NON-LOCKING Art. no. 921887-000
1-0-1 LOCKING Art. no. 918937-000
1-0-1 LOCKING + NON-LOCKING Art. no. 940855-000
1-0-1 NON-LOCKING Art. no. 941403-000

Key switch



Key switch for M-300, 500 Art. no. 901884-000



Key switch Art. no. 915022-000

LEDs



RED Art. no. 946358-000
GREEN Art. no. 946358-001
YELLOW Art. no. 946358-002
BLUE Art. no. 946358-003
HIGH POWER Art. no. 946359-xxx

REMOTUS

Mercury — Receivers

Remotus Mercury receivers are modular and flexible so they can be customized to each customer's specific needs. The line consists of three basic models that can be expanded using several specially designed expansion cards for various applications, and a receiver for controlling existing PLCs. The receivers have dual safety relays for controlling the line circuit breaker and very secure radio transmissions.

REMOTUS Mercury RX82

No. of outputs:

8 independent relays; of which 5 changeover and 3 open contacts, and line circuit breaker hold with monitoring safety relay.
1 serial COM port.

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Relay data:

250 V AC, 8 A

Expansion slots:

2

Ambient temperature:

-25°C to +55°C

Casing:

Powder coated sheet metal

Dimensions:

300 x 200 x 122 mm excluding attachments and connectors

Weight:

5 kg

Connection voltage:

24/48 or 115/230 + 15-20 % V AC or 15-35 V DC



REMOTUS Mercury RX182

No. of outputs:

18 independent relays with changeover contacts and line circuit breaker start and hold with monitoring safety relays. 2 serial COM ports.

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Relay data:

250 V AC, 8 A

Expansion slots:

2

Ambient temperature:

-25°C to +55°C

Casing:

Powder coated sheet metal

Dimensions:

335 x 250 x 160 mm excluding attachments and connectors

Weight:

8 kg

Connection voltage:

24/48 or 115/230 + 15-20 % V AC or 15-35 V DC



REMOTUS Mercury RX161

No. of outputs:

16 outputs; 4 changeover and 12 open contacts of which 6 safety relays

Outputs for emergency stop:

2 safety relays; 2 changeover contacts

No. of inputs:

1 analogue input
0(4)-20 mA or 0/2-10 V
1 serial input: RS422/RS485
2 opto isolated digital inputs for 24/48 V AC/DC, 115 V AC or 230 V AC 50/60 Hz

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Expansion slots:

1 extra relay card incl 16 relays, of which 4 changeover

Ambient temperature:

-25°C to +55°C

Casing:

Powder coated sheet metal

Dimensions:

300 x 200 x 122 mm excluding attachments and connectors

Weight:

5 kg

Connection voltage:

24/48/115/230 V AC or 24 V DC



REMOTUS Mercury RX161

No. of outputs:

16 outputs; 4 changeover and 12 open contacts of which 6 safety relays

Outputs for emergency stop:

2 safety relays; 2 changeover contacts

No. of inputs:

1 analogue input
0(4)-20 mA or 0/2-10 V
1 serial input: RS422/RS485
2 opto isolated digital inputs for 24/48 V AC/DC, 115 V AC or 230 V AC 50/60 Hz

Radio frequencies:

418-419 MHz, 433-434 MHz, 863-870 MHz, 915-928 MHz

Expansion slots:

1 extra relay card incl 16 relays, of which 4 changeover

Ambient temperature:

-25°C to +55°C

Casing:

Flameproof plastic (UL 94 5VA)

Protection class:

IP67

Dimensions:

277 x 217 x 115 mm

Weight:

1.5 kg

Connection voltage:

24/48/115/230 V AC or 24 V DC



REMOTUS Mercury Rxs96

Radio frequencies:

433-434 MHz bands or licensed frequency bands on request

MC relay data:

250 V AC, 2 A

PROFIBUS DP slave:

16 bytes out/in (consistent data)

PROFINET I/O slave :

16 bytes out/in (consistent data)

Ambient temperature:

-25°C to +55°C

Casing:

Aluminium profile for screw mounting or mounting on DIN rail

Dimensions:

165 x 105 x 150 mm excluding attachments and connectors

Weight:

1.8 kg



REMOTUS

Mercury — Expansion options

Remotus Mercury receivers can be expanded using several specially designed expansion cards for various applications. The receivers have a standard 8-18 relay outputs that can easily be expanded for up to 50 functions.

REMOTUS Mercury RX161

OUTPUT BOARD 16 RELAYS

Art. no. 950868-000

REMOTUS Mercury RX82

INPUT BOARD 3 DIGITAL 230 V AC
INPUT BOARD 3 DIGITAL 24 V AC
INPUT BOARD 8 DIGITAL 230 V AC
INPUT BOARD 8 DIGITAL 24 V AC
INPUT BOARD 3 ANALOGUE
OUTPUT BOARD 3 ANALOGUE
OUTPUT BOARD 3 RELAYS
OUTPUT BOARD 8 RELAYS

Art. no. 927169-000
Art. no. 927169-024
Art. no. 935525-000
Art. no. 935525-024
Art. no. 930527-000
Art. no. 925276-000
Art. no. 926293-000
Art. no. 934122-000

REMOTUS Mercury RX182

INPUT BOARD 3 DIGITAL 230 V AC
INPUT BOARD 3 DIGITAL 24 V AC
INPUT BOARD 8 DIGITAL 230 V AC
INPUT BOARD 8 DIGITAL 24 V AC
INPUT BOARD 3 ANALOGUE
OUTPUT BOARD 3 ANALOGUE
OUTPUT BOARD 3 RELAYS
OUTPUT BOARD 8 RELAYS
OUTPUT BOARD 16 RELAYS

Art. no. 927169-000
Art. no. 927169-024
Art. no. 935525-000
Art. no. 935525-024
Art. no. 930527-000
Art. no. 925276-000
Art. no. 926293-000
Art. no. 934122-000
Art. no. 935025-000



REMOTUS

System examples

Remotus systems are very user-friendly and customizable. It is possible to maneuver several objects from the same transmitter (**multi-crane operation**), which makes it easier when for example you need to lift multiple objects simultaneously. It is also possible to maneuver the same object from several transmitters (**multi-operator operation**). An advantage if you want to control, for example, an object where you have no oversight over the driving distance. You can therefore hand over the control between two transmitters. Remotus systems are secure and reliable, so you can always ensure by active choice that only one transmitter is in control of each object at a time.

MULTI-CRANE OPERATION



MULTI-OPERATOR OPERATION



REMOTUS

Mercury — Link systems

We offer different link systems for wireless data transmission between two or more units within a large area or when direct connections are not possible. With Mercury link systems, you avoid expensive cable installations.

REMOTUS Mercury DP-Link

The Remotus Mercury DP-Link is a system for wireless data transmission between two Profibus DP busses. The system enables data communication between two busses within a large area or when direct bus connections are not possible. The units are connected as DP slaves to the Profibus DP field bus. Transmission time for 16 bytes-in and 16 bytes-out in both directions over the radio link is less than 100 ms. The units must be connected to both nodes in a Profibus DP master to enable data communication. There is a serial asynchronous communication channel for communication, for example, with scales and position sensors. The Remotus Mercury DP-Link has a powerful, built-in programmable logic controller (PLC) system that handles sophisticated data processing. The system has a 14-bit address that allows for 16,384 different addresses, a serial, asynchronous communication channel for communicating with scales, position sensors, and the like, and a built-in monitor for test and parameter settings. There are also indicators for different system functions (status, outputs).



One- or two-way communication



REMOTUS Mercury RX-Link

Remotus Mercury RX-Link is a system for wireless I/O data communication between two or several units within a large area or when direct connections are not possible. The data can also be serial, such as wave value. An RX-Link system includes two Mercury receivers, RX82, RX182 or Rxs96. Connection to the system is via a standard 48 pole Harting connector. Other connectors can be offered. The Remotus Mercury RX-Link has a powerful, built-in programmable logic controller (PLC) system that handles sophisticated data processing. It also has a 14-bit address allowing for 16,384 addresses; serial, an asynchronous communication channel for communicating, for example, with scales and position sensors; a built-in monitor for test and parameter settings, and indicators of different functions in the system (e.g. status and outputs).



One- or two-way communication





REMOTUS

Mercury — Special systems

The Remotus Mini controller is our control system for crane cabs and fixed control points. The transmitter is mounted on the backside of an adapted ergonomic seat and the operating unit is mounted on the armrest. The receiver is adapted to a number of functions. Using this equipment, the operator can easily control the crane while sitting comfortably. It is an ergonomically correct alternative that provides a comfortable, individual driving position. The seat, control unit and joysticks are available in different versions and can be adapted to individual requirements. The signals are transmitted by cable or radio. The system can easily be combined with Åkerströms' portable transmitters.

REMOTUS Mercury Mini controllers

No. of functions:
Up to four movements, 2-position, 4-position or stepless joystick

Type of transmission:
FM FSK

Transmission speed:
Standard 4,800 baud

Ambient temperature:
-25°C to +55°C

Radio frequencies:
433-434 MHz bands or licensed frequency bands on request

Output power:
Varies depending on application and licensing limitations. Usually 10 to 400 mW.

Range:
Up to 1 000 m

Antenna:
Internal



Different joysticks are available. Our own joysticks are included as standard, see photo.



MERCURY MINI CONTROLLERS

The Mercury Mini controller is a control system for crane cabs and fixed control points that provides a comfortable driving position.



When other products give up.
Ours just keep on going.
Day after day.
In the real world.
Your world.



78782114522 POLAROID

NAME: Remotus Jupiter 10B
CLIENT: LKAB, Sweden
MISSION: Radio remote control of industrial crane
IN OPERATION SINCE: 2009

REMOTUS

Carrying devices and accessories

Our carrying devices help provide a comfortable, ergonomic working position and reduce strain on the body when working long hours. We have several different carrying devices to choose from that can easily be adjusted for each user. A custom belt is included with each transmitter. We also offer a wide range of accessories and spare parts such as batteries, chargers, storage cabinets, signs etc. Visit our web shop at akerstroms.com for more information, pictures, and article numbers.



Shoulder strap

SHOULDER STRAP
Era 100, J/M-100
Art. No. 944204-000

SHOULDER STRAP
M-300/500
Art. No. 944204-001



Harness

HARNES
Era 100, J/M-100,
Art. No. 947108-000



Belt holder

BELT HOLDER KIT
J-8B/10B/9B RS/12B
Art. No. 934158-000



Belt holder

BELT HOLDER CLIP ON
Era 4/6/8B
Art. No. 952147-000



Protective bag

PROTECTIVE BAG
J-M 8B/10B/12B
Art. No. 951900-001



Protective bag

PROTECTIVE BAG
Era 4/6/8B,
Art. No. 951900-000



Vehicle bracket

VEHICLE BRACKET
J-M 8B/10B/9RS/12B
Art. No. 935408-001



Vehicle bracket

VEHICLE BRACKET
Era 4/6/8B
Art. No. 952521-000



Wall bracket

WALL BRACKET
Era 4/6/8B
Art. No. 952148-000

Visit our webshop for accessories and spareparts at akerstroms.com



Vest

VEST
Era 100, J/M-100,
M-300/500
Adjustable size
Art. No. 951854-000



Belt

BELT
Era 100, J/M-100
Adjustable size
Art. No. 952704-000



Belt

BELT
M-300/500
Adjustable size
Art. No. 952705-000



Belt

BELT WITH RAIL
J/M-100
700-1100 mm
Art. No. 935537-000



Belt

BELT WITH FLIP-UP
J-M 8B/10B/9RS/12B
Art. No. 935537-004



Hook

HOOK
M-300/500
Art. No. 926708-000



Hook

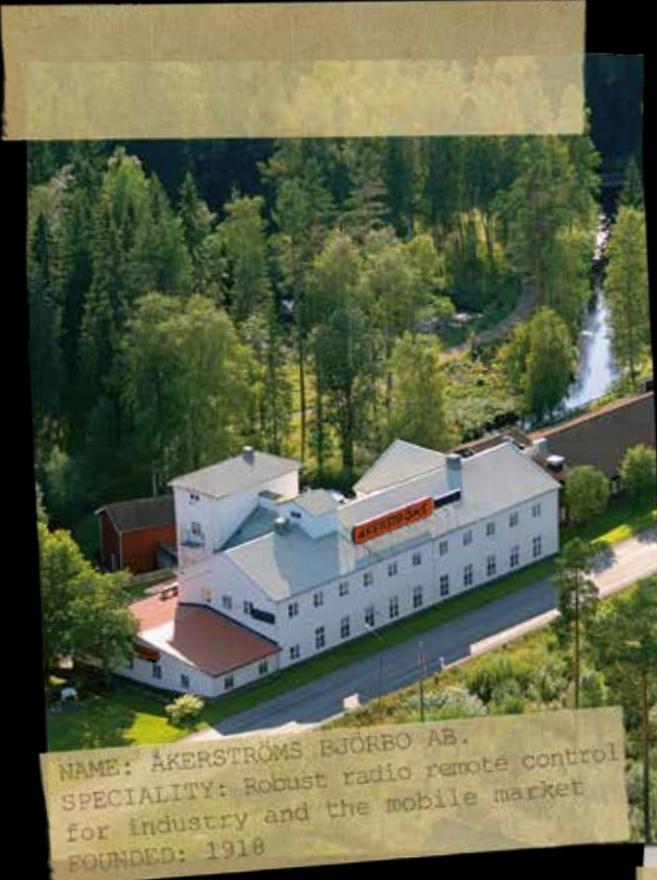
HOOK
J/M-100
Art. No. 925563-000



FREQUENCYCLOUD

Åkerströms' cloud service FrequencyCloud is a piece of software that runs via the internet. FrequencyCloud manages your frequencies simply and effectively.

www.frequencycloud.com



NAME: ÅKERSTRÖMS BJÖRBO AB.
SPECIALITY: Robust radio remote control
for industry and the mobile market
FOUNDED: 1918



NAMN: Åkerströms produktionsavdelning
SPECIALITET: Produktion av robust
radiostyrning för industrin och
mobila marknaden.



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