JAY électronique

FREE YOURSELF FROM CABLES !

Alto
TRANSCEIVER

The Alto radio transceiver by JAY Electronique provides solutions to the wide range of functional needs involved in secure industrial applications. This highly flexible product integrates today's cutting edge technology for optimum performance.

MAIN FEATURES

→ Modular unit with a large choice of functions

→ Configurable, intelligent bi-directional radio link exchanges information while adapting to the radio environment.

→ Internal, unique SIM card contains all the transceiver and operator module parameters linked to the application, and :
  - allows an operator module to associate to a transceiver by recovering the application configuration,
  - allows you to quickly replace a transceiver if necessary.

→ Quick and easy product configuration by mini-B USB connector and thanks iDialog software.

→ Cable glands or industrial connector (32, 40 or 72 contacts) on transceiver for easy installation.

→ Spring-type, plug-in terminal strips facilitate wiring and maintenance.

## FULLY COMPLIANT WITH EUROPEAN DIRECTIVES :

Machinery 2006/42 :
Emergency stop
→ SIL3 per EN 61508
→ Performance level PL e
  Per EN13849-1 and -2
EC type certificate issued by
TÜV NORD

TÜV NORD
TÜV NORD CERT GmbH
Type Tested

No 44 250 11 382580 006

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

PLUG-IN SIM CARD WITH APPLICATION CONFIGURATION

USB CONNECTOR FOR MAINTENANCE AND CONFIGURATION
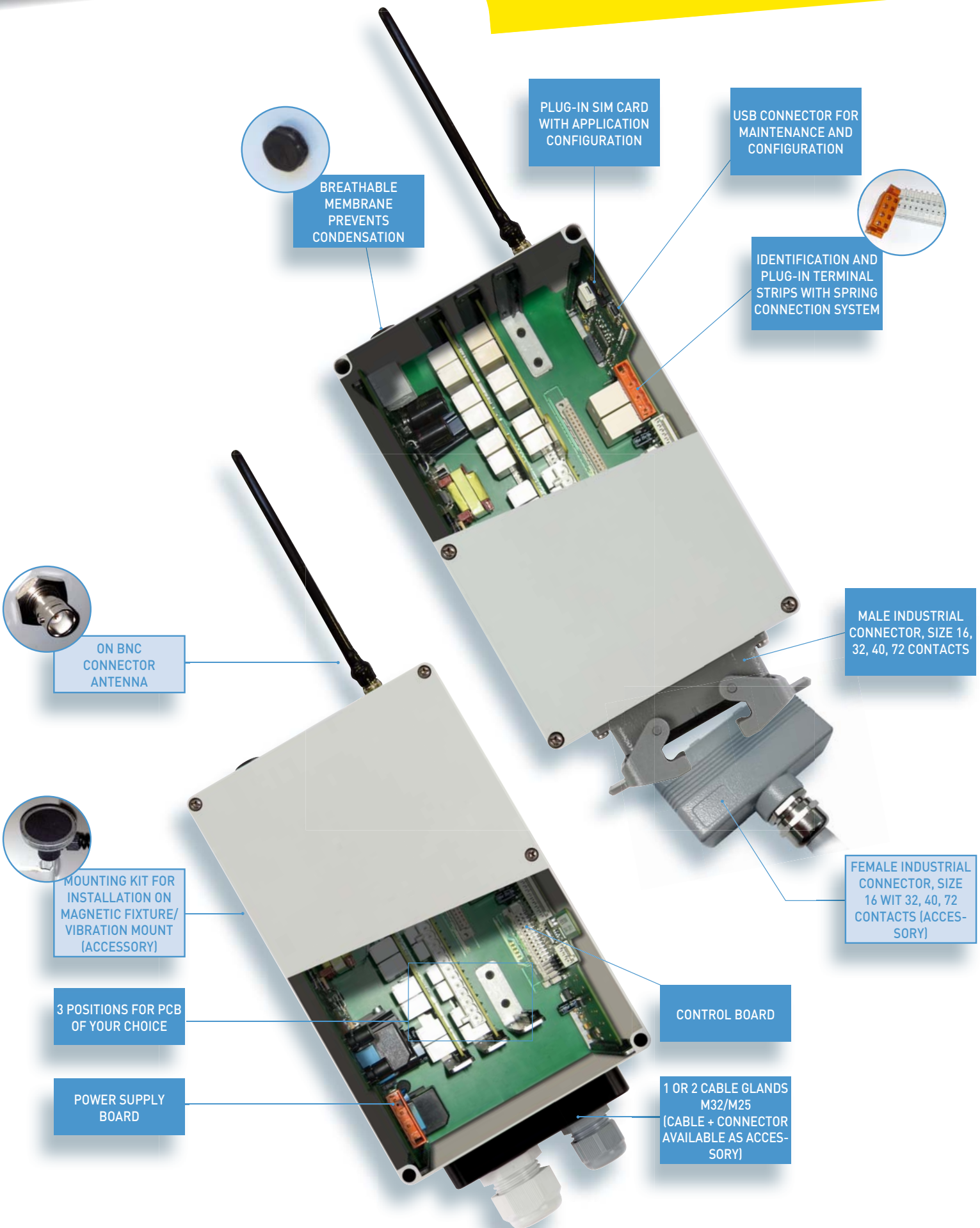
BREATHABLE MEMBRANE PREVENTS CONDENSATION

IDENTIFICATION AND PLUG-IN TERMINAL STRIPS WITH SPRING CONNECTION SYSTEM

ON BNC CONNECTOR ANTENNA

MALE INDUSTRIAL CONNECTOR, SIZE 16, 32, 40, 72 CONTACTS

MOUNTING KIT FOR INSTALLATION ON MAGNETIC FIXTURE/ VIBRATION MOUNT (ACCESSORY)

FEMALE INDUSTRIAL CONNECTOR, SIZE 16 WIT 32, 40, 72 CONTACTS (ACCESSORY)

3 POSITIONS FOR PCB OF YOUR CHOICE

CONTROL BOARD

POWER SUPPLY BOARD

1 OR 2 CABLE GLANDS M32/M25 (CABLE + CONNECTOR AVAILABLE AS ACCESSORY)

DESCRIPTION

The modular transceiver is formed by PCBs which connect into the unit's motherboard.

The unit is systematically equipped with :

→ 1 power supply board

→ 1 control board containing safety relays RS1 & RS2 / On-Horn relay / 3 inputs for infrared module

 OPTION : 1 logic input / 1 analog input / 1 RS485 Modbus serial link

3 positions are provided to receive, in accordance with your application :

→ 1 board with 12 On/Off relays

→ 1 board with 12 logic inputs + 2 analog inputs

→ 1 board with 6 analog outputs + 1 bypass output

→ 1 BUS board

TECHNICAL CHARACTERISTICS

MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

Housing material	ABS,
Tightness	IP 65
Weight	2Kg (approx.)
Dimensions	160 x 250 x 120 mm max (not including antenna)
Operating temperature range	- 20°C to + 60°C
Storage temperature range	- 30°C to 70°C
Cable lead-out	- by plug-in connector, 32, 40 or 72 contacts
	- by 2 cable glands (size M32/M25)
Wiring connection	Spring-type plug-in connectors

RADIO CHARACTERISTICS

Frequency	- 64 programmable frequencies on 433-434 MHz band
	- 12 programmable frequencies on 869 MHz band
Transmit power	< 10 mW (license free)
Modulation	FM
Antenna	plug-in antenna on BNC connector
Average range [1]	100 m in industrial environment [1]
	300 m in open space [1]

ELECTRICAL CHARACTERISTICS OF POWER SUPPLY BOARD

Power supply voltage	12-24VDC ± 15 %/ 24-48VAC ± 25 % / 115-230VAC ± 15 %
Maximum consumption	15 W
USB Interface	mini-B 5-contact USB connector
Indication	- yellow indicator lights : power on
Number of relays controllable according to power supply without or with 1 IR module connected	30

ELECTRICAL CHARACTERISTICS OF CONTROL BOARD

Contact type	2 relays with linked contacts
Contacts and connection	3 connection points, 1 Contact Spring-type plug-in connectors
Indication	- 1 green indicator light : Radio status and quality
	- 1 yellow indicator light : Power on
	- 1 red indicator light : fault and diagnostic
Active stop time	100 ms
Passive stop time	adjustable 0,5 to 2 s

ON CONTROL BOARD (OPTION)

1 Logic input

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
1 active input consumption	< 10mA
Voltage	0 to 30VDC
Lowlevel on input	< 2VDC
Highlevel on input	> 3VDC

1 Analog input

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
Max. input level	10V or 4-20mA
1 active input consumption	< 12mA

1 RS485 serial link

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors

STARTUP BY IR VALIDATION (ON CONTROL BOARD - OPTION)

ACTION AREA LIMITATION BY INFRARED (ON CONTROL BOARD - OPTION)

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

ADDITIONAL OPTIONS

ELECTRICAL CHARACTERISTICS OF BOARD WITH 12 CONTROL RELAY OUTPUTS

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
Outputs	Independent relays
	- Category DC13 0,5A / 24VDC , AC15 2A / 230VAC
	- Interrupting capacity, 2000VA max.
	- Max. current 8A (control relay), 6A (safety relay)
	- Min. current 10 mA (12 Vmin.)
	- Max. voltage 250VAC
Response time	- On startup : 0,5s max
	- On command : 200ms typical

ELECTRICAL CHARACTERISTICS OF BOARD WITH 12 LOGIC INPUTS + 2 ANALOG INPUTS

Logic inputs

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
Consumption of an active input	< 10mA
Voltage	0 to 30VDC
Low level on input	< 2Vdc
High level on input	> 3Vdc

Analog inputs

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
Max. input level	10V or 4-20mA
Consumption of an active input	< 12mA

ELECTRICAL CHARACTERISTICS OF BOARD WITH 6 ANALOG OUTPUTS + 1 BYPASS OUTPUT

Analog outputs

Contacts and connection	2 connection points, 1 Contact Spring-type plug-in connectors
Output level	0 / 10V
	-10V / 0 / +10V
	3V / 6V / 9V
	6V / 12V / 18V
Voltage output max. current	10mA

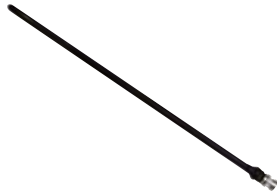### ELECTRICAL CHARACTERISTICS OF BOARD WITH OUTPUT BUS

CANopen

Straight antenna, 1/4 wave, BNC
Reference : VUB084

Short straight antenna, 1/4 wave, BNC
Reference : VUB082

Straight antenna, 1/2 wave, BNC
Reference : VUB086

0.5 m extension for BNC antenna
Reference : VUB170

2 m extension for BNC antenna + bracket
Reference : VUB105

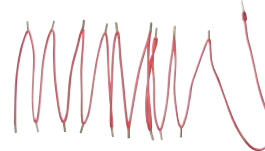**5 m extension for BNC antenna + bracket**
Reference : VUB125

10 m extension for BNC antenna + bracket
Reference : VUB131

Transceiver mounting kit using magnetic fixtures
Reference: UDWR38

Wiring accessories for common points
Reference: PWT03

Cable gland kit PE M25 with 2 wire grommets
Reference: PWT01

2m cable + 16-pin male connector
Reference : UDWR14

2m cable + 24-pin male connector
Reference : UDWR13

Female industrial connector kit, size 16
32 contacts, reference: PWT10
40 contacts, reference: PWT11
72 contacts, reference: PWT12

1 IR module
(10m cable and plastic M16 cable gland included) for options : startup by IR validation or limitation of action area by IR system
Reference: PWT20

10m cable extension + connector
for PWT20 IR module
Reference : UDWR10

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