



# AIR SERIES

## SOLUTIONS FOR INDUSTRIAL LIFTING AND AUTOMATION

DIMENSIONS: 123x202x83 mm  
WEIGHT: 1.2 Kg

**ACRS13-G/L  
DCRS13  
receiving units**

DIMENSIONS: 185x235x105 mm  
WEIGHT: 2.2 Kg

**ACRM15  
receiving units**

DIMENSIONS: 144x120x63 mm  
WEIGHT: 0.65 Kg

**HACRP8  
receiving units**

DIMENSIONS: 144x120x63 mm  
WEIGHT: 0.65 Kg

**MVRCAN  
receiving units**

**ACRS13-G/L RECEIVING UNIT:** AC power supply. 12 programmable relays + Start and Stop, and internal or external antenna. The ACRS13-G receiving unit has a removable power supply card and 4 Data Feedback inputs, whereas ACRS13-L has an integrated power supply card.

**DCRS13 RECEIVING UNIT:** DC power supply. 12 programmable relays + Start and Stop, and internal or external antenna. Removable power supply card. 4 Data Feedback inputs.

**ACRM15 RECEIVING UNIT:** AC power supply. 14 programmable relays + Start and Stop, and internal or external antenna. Up to 16 outputs with optional relay cards and 4 Data Feedback inputs are available. Analogue outputs for VFD/inverter control and digital and/or analogue inputs (e.g. for load cell and pulse counter) are available. RS-232 / 485 serial communication ports are available.

**HACRP8 RECEIVING UNIT:** AC power supply. 7 relays + Start and Stop. Dedicated output to enable command activation. Integrated blinker. An integrated buzzer is available as an option.

**MVRCAN RECEIVING UNIT:** AC/DC power supply. 4 programmable relays + Stop. CANopen 2.0 serial I/O.

### Technical data

GENERAL	
Frequency band	433.05-434.79 MHz (64 channels) / 915-928 MHz (256 channels)
Hamming distance	≥ 9
Typical working range	75-100 m
Safety category for the STOP protection (EN ISO 13849-1)	PL d
Protection degree	IP65 (NEMA 4)
TRANSMITTING UNITS	
Power supply	7.4 Vdc (Li-ion) - 7.2 Vdc (NiMH)
Run time with fully charged battery (continuous use at 20°C)	40h (Li-ion) – 20h (NiMH)
Run time with fully charged battery (continuous use at 20°C) with Data Feedback	20h (Li-ion) – 10h (NiMH)
Operating and storage temperature	(-20°C)-(+55°C) / (-40°C)-(+70°C)
Low battery warning time	2h
RECEIVING UNITS	
ACRS13-G/L	
Power supply range	40-264 Vac
Operating and storage temperature	(-20°C)-(+70°C) / (-40°C)-(+80°C)
Number of functions	up to 12 on/off + Start and Stop
DCRS13	
Power supply range	9-30 Vdc
Operating and storage temperature	(-20°C)-(+70°C) / (-40°C)-(+80°C)
Number of functions	up to 12 on/off + Start and Stop
ACRM15	
Power supply range	40-264 Vac
Operating and storage temperature	(-20°C)-(+70°C) / (-40°C)-(+80°C)
Number of functions	up to 30 on/off + Start and Stop
Proportional outputs (optional)	up to 6 (0±10 V, 4-20 mA)
Digital inputs	up to 12
Analogue inputs (optional)	4 (0-10 V, 4-20 mA)
HACRP8	
Power supply range	40-440 Vac
Operating and storage temperature	(-20°C)-(+70°C) / (-40°C)-(+80°C)
Number of functions	7 on/off + Start and Stop
MVRCAN	
Power supply range	8-30 Vdc / 24 Vac
Operating and storage temperature	(-20°C)-(+70°C) / (-40°C)-(+80°C)
Bus output	CANopen 2.0
Number of functions	4 on/off + Stop

Products comply with the R&TTE Directive (99/05/EC), the LVD Directive (2006/95/EC) and the Machinery Directive (2006/42/EC), as applicable



## PROVEN PROTECTION



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Cert. UNI EN ISO 9001:2008 No. 50 100 2877  
Design, manufacture and service of remote control systems for safety industrial applications.



AIR DEPLUANT ENG 5.01\_05/14



## PROVEN PROTECTION



### Radio remote controls for all needs

The AIR series has a wide range of transmitting and receiving units that meet any need in the sector of industrial lifting and automation. The A8, A6 and A4 pushbutton handsets are the lightweight and compact solutions for the control of lifting, automation and material handling applications. They resist fall tests from 1.5 metres, are equipped with multi-function pushbutton (latching, momentary, switch, 1, 1+2, 2, 1/2) and a browsing menu for optimisation of functions and performance according to the application.

The AJM, AJR and AJS joystick controllers are ergonomic handsets that can mount a wide array of switches and 2 to 6 joysticks: this enables countless configuration options both in the version with digital commands only or inclusive of proportional commands. All the pushbutton handsets come with a Li-ion battery as a standard, whereas the joystick models have a standard NiMH battery or an optional Li-ion battery, which does not suffer any memory effect and ensures twice as long run time compared to NiMH technology, better performance even at low temperatures and reduced charging time.

The receiving units are developed for a vast range of applications and have the following characteristics:

- extended power supply range is supported, with all supply values managed with a single input
- terminals and terminal blocks are easy to install, to facilitate wiring operations
- relays may be programmed through software.

Strengths of the AIR series:

- automatic search for the working frequency at start-up
- dual-band radio (434 MHz and 915 MHz)
- PL d category for the STOP function (EN ISO 13849-1)
- system configuration customisable through the AIR TOOL software
- data log to record radio remote control operations
- Li-ion battery: 40-hour run time, no memory effect, no ageing
- CAN and serial communication
- the removable AIR-key (on joystick units) contains the unique and univocal code of the radio remote control

### Functions

The whole AIR series offers many functions for better customisation of working settings

Low Power Start Up: it restricts the start-up working range.

Range Limiting: it restricts the work area of the radio remote control. The radio link is maintained only if the transmitting unit is working within the area limited by the working range.

AIR Programming Tool: connectable to a pc or tablet to customise installation and operation settings (activation of start-up PIN, PIN code customisation, radio parameters, switch-off time, etc.).

### Multiple systems

All AIR series radio remote controls are designed also for applications requiring multiple systems: they consist of several transmitting and/or receiving units, which may constantly control the radio link of the receiving units selected and consequently stop the system if it loses the link with one of them.

Digital inputs are available to stop the transmitting unit if control sensors (i.e.: limit switch, overload, etc.) linked to a receiving unit activate.

The multiple systems are:

- Multi Units: consists of up to four transmitting units and four receiving units
- Take & Release: consists of up to fifteen transmitting units and one receiving unit
- Multi Receiver: consists of up to fifteen receiving units and one transmitting unit

### Data feedback

Thanks to the two-way radio communication which is always active, all receiving units can transfer information about the controlled machine to the transmitting unit and show it on 4 LEDs and/or high performance display with 16 LEDs (for joystick controllers).

A 1.54" display is mounted on the AJS transmitting unit, whereas the AJR and AJM units may also mount a 2.7" display, for indoor (OLED display) and outdoor use (transflective display). In both cases, information appears as icons, descriptions or measurements, depending on the desired settings.

Display visualization examples



1.54" graphic display

2.7" graphic display, available both as OLED and as transflective display



### Configurations

The AIR series transmitting units are available as joystick controllers and pushbutton handsets.

The pushbutton handsets are available with 4, 6 or 8 pushbuttons.



A4

DIMENSIONS: 64.5x179x37.5 mm  
WEIGHT (including battery): ~ 250 g

A6

DIMENSIONS: 64.5x179x37.5 mm  
WEIGHT (including battery): ~ 250 g

A8

DIMENSIONS: 64.5x179x37.5 mm  
WEIGHT (including battery): ~ 250 g

### AJS, AJR, AJM

**AJS transmitting units**

Customisable versions with 2 to 3 dual-axis joysticks; up to 7 actuators, plus Start and Stop may be added.

**AJR transmitting units**

Customisable versions; up to 3 dual-axis joysticks and a large number of actuators may be mounted.

**AJM transmitting units**

Customisable versions; up to 4 dual-axis joysticks and a large number of actuators may be mounted.

The transmitting units are available with digital commands (up to 42 commands) or analogue commands (up to 6 analogue commands and 28 digital commands).

Joystick controllers are also available with a printed aluminium panel to resist the harshest and aggressive environments.

Additional options are available, such as:

- Cable control, it can be easily connected to the transmitting and receiving unit and may replace the radio remote control when particular situations occur (i.e. during maintenance operations, or when working in places where radio frequency communication is not allowed)
- IR, a sophisticated infrared system that enables the machine to switch on and the operator to work only if the infrared units are aligned ("Range Limiting" function)
- Zero G Sensor, an innovative system that prevents uncontrolled commands from being sent when the transmitting unit rolls, is dropped, tilted or thrown
- External buzzer, an 85Db alert that emits the noise of alarms, of the machine's horn, etc. and it has IP65 protection
- External antenna on the receiving units that extends radio reception to the typical range whenever communication is difficult in the usage environment.

## AJS



DIMENSIONS: 258x170x126 mm  
WEIGHT (including battery): ~ 1.3 kg

2 dual-axis joysticks / 5 switches

2 dual-axis joysticks / 4 switches

Data Feedback

## AJR



DIMENSIONS: 260x200x190 mm  
WEIGHT (including battery): ~ 2 kg

3 dual-axis joysticks / 6 switches

2 dual-axis joysticks / 10 switches

Data Feedback

## AJM



DIMENSIONS: 310x210x190 mm  
WEIGHT (including battery): ~ 2.5 kg

4 dual-axis joysticks / 8 switches

2 dual-axis joysticks + 12 switches +

1 rotary switch

Data Feedback