Technical specifications

	I/O modules		Radio modems			
Products	**ARF50**	**ARF50-PRO**	**ARF33-PRO**	**ARF43-PRO**	**ARF53-PRO**	**ARF73**
Range	Depending on modem	Depending on modem	200m	1000m	6km	25km
Inputs / ouputs						
Digital inputs 0/40V NPN	4	4	-	-	-	-
Digital outputs 0/40V PNP	4	4	-	-	-	-
Analog inputs 12 bits (0/20mA or 0/10V)	-	2	-	-	-	-
Analog outputs 12 bits (0/20mA or 0/10V)	-	2	-	-	-	-
I/O refreshing rate	From 100ms*	From 100ms*	-	-	-	-
Interface						
Connection to modem	RS485	RS485	RS485	RS485	RS485	RS485
Connection to supervisor	RS485	RS485	-	-	-	-
ARF50 daisy chain	Proprietary bus	Proprietary bus	-	-	-	-
Programming & set up	USB	USB	Through ARF50	Through ARF50	Through ARF50	Through ARF50
Serial rate	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6kbps
RF specifications						
Frequency	-	-	869.525MHz	869.525MHz	869.525MHz	400 to 470MHz
Radiated RF power	-	-	10mW	50mW	500mW	0.5 to 4W
Sensitivity	-	-	-112dBm	-112dBm	-112dBm	-115dBm
Radio data rate	-	-	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6 or 57.6kbps	9.6kbps
Consumption	-	-	Transmission: 0.4W Reception: 0.27W	Transmission: 0.7W Reception: 0.27W	Transmission: 3W Reception: 0.27W	Transmission:16W Reception: 2W
Protocole						
Bus	Modbus RTU	Modbus RTU	-	-	-	-
General information						
Operating temperature	-10 / +70°C	-10 / +70°C	-30 / +70°C	-30 / +70°C	-30 / +70°C	-30 / +70°C
Supply voltage	10 to 36V	10 to 36V	4.5 to 36V	4.5 to 36V	4.5 to 36V	10 to 28V
Packaging	DIN Rail mounting	DIN Rail mounting	Optional DIN Rail	Optional DIN Rail	Optional DIN Rail	Optional DIN Rail
Size	105 x 91 x 60 mm	105 x 91 x 60 mm	145 x 100 x 40 mm	145 x 100 x 40 mm	145 x 100 x 40 mm	169 x 100 x 55 mm

* Architecture: 1 master to 1 RF slave with a ARF53 modem in WB (rate 57.6kbps)

Accessories

	Part numbers	Use case	Type	Signals	ARF50 Connector	Modem Connection	Lenght
Cable ARF50 to modem (RS485#1)	ACC-CBL-10111	Modem with external antenna	4 wires	+v, A, B, 0v	4 wires WAGO terminal block	breakout cable	0.75m
Cable ARF50 to modem (RS485#1)	ACC-CBL-10122	Modem with integrated antenna	4 wires	+v, A, B, 0v	4 wires WAGO terminal block	breakout cable	2m
Cable ARF50 «master» to ARF50 «RF slave»	ACC-CBL-10133	ARF50 chaining	4 wires	+v, H, L, 0v	4 wires WAGO terminal block	nc	1m
DIN Rail fixing system for modem	ACC-ADP-10033	To install the modem on the Rail	nc	nc	nc	nc	nc

Part numbers

ARF7663AA **ARF50** 4 digital I/O version
ARF7663BA **ARF50-PRO** 4 digital I/O + 2 analog I/O version

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283 rue Louis Néel - Parc Technologique Pré Roux - 38920 CROLLES - France
Tél. : +33 (0)4 76 92 07 77 - Fax : +33 (0)4 76 04 80 87 - E-mail : arf@adeunis-rf.com - www.adeunis-rf.com

Adeunis RF
Wireless products & solutions

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- Flexible
- Modular
- Powerful
- Wireless

ARF50

Wireless Digital & Analog Inputs/Outputs Modules

For all your applications

Wireless Digital & Analog I/Os Modules

The ARF50 is an I/O module that can acquire **digital or analog states** from sensors, dry contacts or counters, in order to control remote equipment.

Coupled to various ADEUNIS RF radio modems, the ARF50 enables unique solutions to be designed for linking or measuring I/Os **over long distances or in disturbated industrial environments.** Modular and with pre-defined intelligent architecture, the ARF50 is perfectly suited to the requirements of **industrial applications** such as automation of sites, remote management, robotics, process control, infrastructure management, control of buildings and on-board automated systems, etc...

Extendable

- Possible chaining up to **16 extension I/O modules representing 64 digital and 32 analog I/Os,** to adapt the number and type of signals to the particular requirements of the application concerned.

Modular

- Wide choice of modules (digital and/or analog) each with 4 digital I/Os and/or 2 analog I/Os.

Intelligent

- **3 intelligent pre-programmed working modes** to cover all types of application.
- Powerful **32 bit micro-processor.**

Quick & Simple

- Fast and easy installation using **Adeunis RF's free user friendly configuration software.**
- Can also be **installed and configured without a PC.**

Wireless

- Can be coupled to a **wide range of Adeunis RF radio modems** with powers of **10 mW to 4W** and a range of **200 m to 25 km.**

Open

- Supports **all serial protocols and networks** (RS485, Modbus RTU,…)

Industrial

- **Robust enclosure** with DIN Rail mounting for integration in a standard electrical cabinet.
- Wide temperature range from **-10°C to +70°C**
- External power supply from **10V to 36V**
- **WAGO terminal blocks**

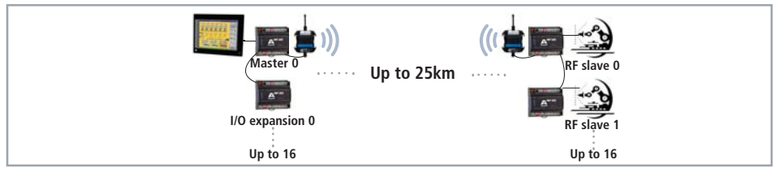
Reliable

- **Certified product** (EN300-220, EN301-489, EN300-113, EN60950)
- **Robustness of the radio signal:** provides safe and sure transmission which is as reliable under industrial conditions over long distances as a cable.

3 working modes ...

Mirror

- Duplicates the I/O from the Master to the Slave, using the radio link to create a mirror.



Peer-to-peer

- Cyclic queries. The Master requests on regular base the status of the I/O slaves.

Trigger

- Exchanges limited to status change (alarm) from a Master input. When there are no alarms, the products are in standby mode in order to optimize power consumption.

... to fit all your applications

Customer benefits

- Adaptability and flexibility
- Increased productivity
- Reduced costs
- Full mobility
- Ease of handling
- Speed of implementation
- Increased availability of installations
- Reduction in mobilisation and maintenance time

- **Remote management**
- **Building management**
- **Remote control**
- **Acquisition, storage**
- **Centralisation of alarms**
- **Remote maintenance**
- **Remote monitoring**
- **SCADA**

- **www.adeunis-rf.com**