Installation guide ARM/868-DXXXX

Advanced Radio Modem Digital Input & Output





Carte Fille 1	
Carte Fille 2	
Carte Fille 3	
Carte Fille 4	

- ✓ 868 MHz radio modem (1 to 500 mW)
- ✓ Europeen regulations, without licence
- ✓ High sensitivity, long range and stable (TCXO)
- ✓ MODBUS mode or Mirror mode
- ✓ Compatible with all the ARM and ACW/868 range.
- ✓ Configuration by USB
- ✓ 10pts connector spacing of 5.08
- ✓ 10-30Vdc (500mA max) power supply
- ✓ 2 digital inputs 4-30Vdc
- ✓ 2 digital outputs MOSFET 10-30Vdc
- ✓ 1 alarm output 10-30Vdc
- Add Input or Output card (max4) (connector 8pts spacing 3.5)
- ✓ RS485 (connector 2pts spacing 3.5)
- ✓ Metal casing for DIN rail fixing

1. INSTALLATION

Pin

	Pin 9	Do not use
	Pin 8	Digital input 1
ARM-D	Pin 7	Digial input 2
	Pin 6	OV Power supply
	Pin 5	Digital output 1
	Pin 4	Digital output 2
ATIM	Pin 3	Alarm digital output
SWA CONTRACTOR	Pin 2	OV Power supply
	Pin 1	+ 10/30vcc Power supply
	0V +	
1 LED 1		

Pin 10

Do not use

LED 8	Green	Tx : Emission
LED 7	Green/Red	Rx : Reception/Error
LED 6	Yellow	I1 : Digital input 1
LED 5	Yellow	I2 : Digital input 2
LED 4	Red	O1 : Digital output 1
LED 3	Red	O2 : Digital output 2
LED 2	Red	WD : Alarm digital output
LED 1	Green	ON : Power supply

2. CONNECTION CARD



Pin 1	Input Output Card 1
Pin 2	0V
Pin 3	Input Output Card 2
Pin 4	0V
Pin 5	Input Output Card 3
Pin 6	0V
Pin 7	Input Output Card 4
Pin 8	0V

Characteristic Card :

Card Logical Input (IL) :

- Logical Positive
- Voltage state On : 6V à 30V
- Voltage state Off : 0V à 5V

Card Logical Output (OL) :

- Logical Positive (MOSFET)
- Voltage: 9V à 30V
- Charging current maximum: 0,5mA

Card Analog Input (IA) :

- Input 0-20mA
- Resolution : 12bits
- Error Maximum : 0,5% PE

Card Analog Output (OA) :

- Output 0-20mA
- Resolution : 12bits
- Error Maximum : 0,5% PE
- To Avoid Internal Rise Temperature used Supply 12 V

Pin 1	RS485+
Pin 2	RS485-

4 MODBUS CONFIGURATION

Download and install the "setupARM-D.exe" configuration software :

Connect the modem to the computer with the USB cable and launch the software.

When you connect the device, the window changes to allow you to change the essential functionalities. Automatically, the modems current configuration connected is retrieved and displayed. You can see this window :

Modbus Slave	Mirror Advanced					
Radio paramet	er	Communic	ation pa	arameter		
Baudrate (bps)	: 19200	@Modem	2		*	
Channel :	522	Time Out	60		×	
Max power :	14 27dBm	Serial pa	rameter 5			
Compatibili	ty with ABM modem	Baudrate	(bps)	19200	•]	
Compatibility with AKM modem		Parity	Parity		None	

Baudrate :1200bps to 115000bps

Channel : Channel selection (See USER GUIDE ARM N8LD-LP)

Compatibility : Compatible with the old ARM versions

Coding wheel : select the channel according to the position of the coding wheel (see table)

@Modem : MODBUS address (1 to 255)

Time Out : Alarm from 0 to 255 seconds (0 = alarm deactivated)

RS485 : validation of the RS485 connection (Option)

Baudrate & Parity : Control RS485

 $\ensuremath{\textbf{Write}}$: Enables to save the configuration after plugin out the USB wire

Default : To put back to factory conditions after plugin out the USB wire

REMARK : Do not enable RS485 (Tab Advanced :Register S30 bit 0 must be 0 S30=04)

3 MIRROR CONFIGURATION

Modbus Slave	Mirror Advanced					
Radio parameter			Communication parameter			
Baudrate (bps) :	19200	•	@Modem	2		\$
Channel :	522	*	@Remote	1		*
Max power : 14/27dBm	14 27dBm		Time Out	60		-
			Cycle Time	0		
			Serial par	ameter		
Compatibility with ARM modem			Baudrate	(bps)	19200	•
Coding whee	Coding wheel channel enable		Parity None		None	•

Baudrate : 1200bps to 115000bps

Channel : Channel selection (See USER GUIDE ARM N8LD-LP)

Compatibility : Compatible with the old ARM versions

Coding wheel : select the channel according to the position of the coding wheel (see table)

@Modem : Local address (1 à 255)

@Remote : Target address (1 à 255)

Time Out : Alarm from 0 to 255 seconds (0 = alarm deactivated)

Cycle Time : Time between 2 cyclic emissions from 0 to 255 Time basis : 0.5s example for 10s you should put 20. 0 defines slave mirror mode

RS485 : validation of the RS485 connection (Option) **Baudrate & Parity** : Serial port speed and parity

Write : Enables to save the configuration after plugin out the USB wire