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Default User Code: 1234

Default Master Manager: 2222

Default Engineer Code: 1111

1. System Overview

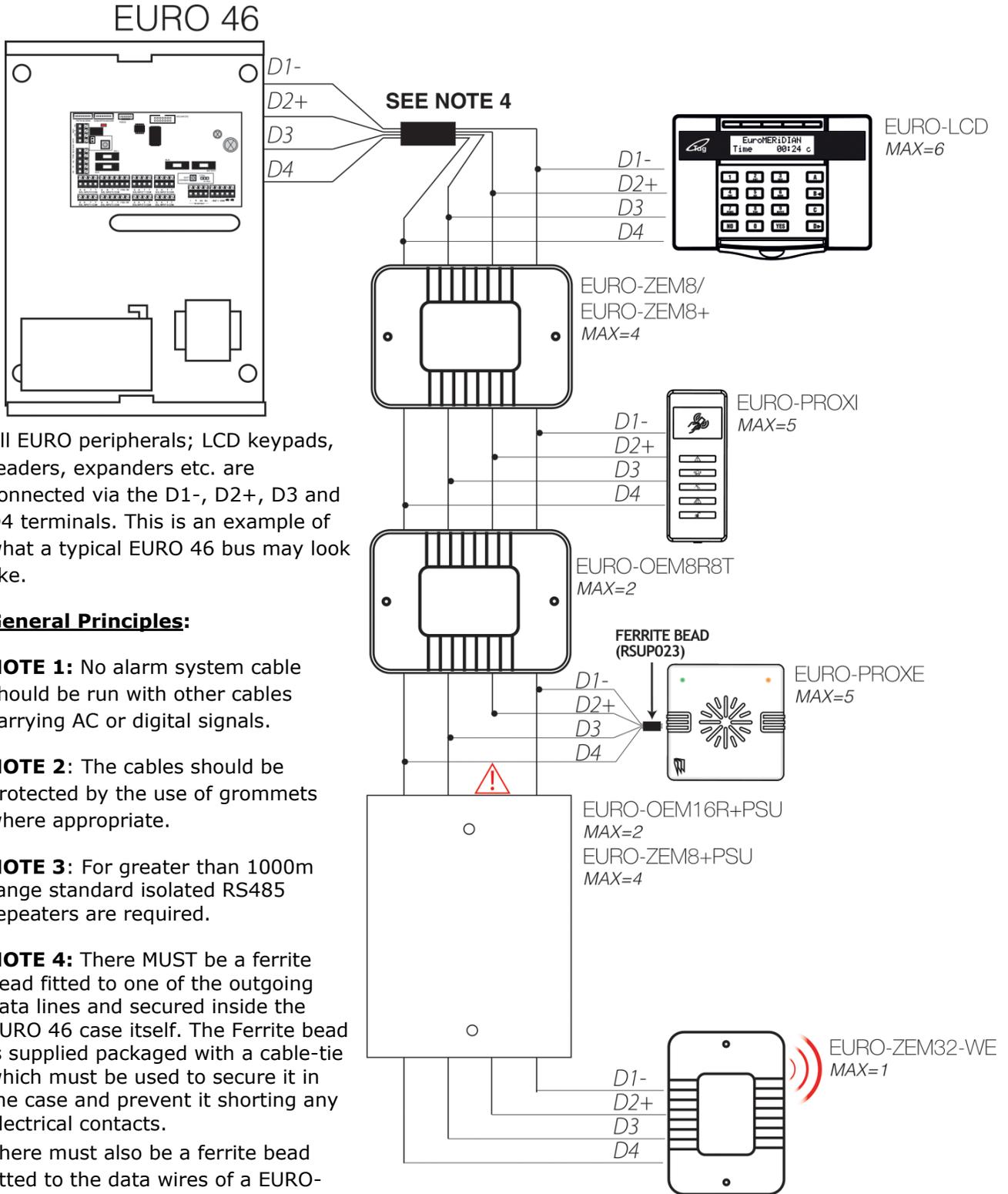
The EURO 46 is wired control panel that can have a maximum of 46 inputs. The EURO 46 can be purchased in a EURO-46S (Small Metal Casing: Grade 2), or a EURO 46L (Large Metal Casing: Grade 3). Both are compatible with Two Way Enforcer wireless peripherals using the EURO-ZEM32-WE (wireless expander).

1.1 System Overview

EURO 46	EURO 46 Double Pole	EURO 46 End of Line
Inputs (max)	46	
Inputs (max wireless inputs) Using EURO-ZEM32-WE	32 (1 x ZEM32-WE)	
Inputs (max wired ZEMs) EURO-ZEM8+	4	4
Set Points (Max) \$	6	
Of which max keypads	6	
Other Devices Max \$	5	
Wireless Bells	2	
Level Sets	6	
Full Areas	6	
Wards (Max)	5	
Shunts	23	
Wireless Keyfobs	32	
User / Manager Codes £	75	
Duress / Guard Codes	10	
Logs Mandatory	750	
Logs Access	250	
Logs Optional	250	
Output Modules	2	
EN Grade	3 (2 = Small casing)	
Environment Class	II	
Comms	Modem, ATE Pins, ARM®	
Modem Type	DIGI-1200 (PSTN) or DIGI-GSM	
MSX card compatible	x	
Autoset & Gates	✓	
Shunt, Day Alarm, Unset Input Types	✓	
Follow Input	✓	
Special Log	✓	
Intelligent Inputs	Multiple	
Display when Set	✓	
Selectable Resistance Ranges	✓	
Download When Set	✓	
Remote Set and Soak	✓	
Event Signalling to Insite	✓	
Dial Out Menu	Upload/ Commission	
Power Supply	EURO 46S: 1.5A small casing EURO 46L: 2A large casing	
	£	Plus engineer and master manager codes
	\$	Includes keypads and tag readers

1.2 The Devices

1.2.1 The EURO 46 Bus Diagram



All EURO peripherals; LCD keypads, readers, expanders etc. are connected via the D1-, D2+, D3 and D4 terminals. This is an example of what a typical EURO 46 bus may look like.

General Principles:

NOTE 1: No alarm system cable should be run with other cables carrying AC or digital signals.

NOTE 2: The cables should be protected by the use of grommets where appropriate.

NOTE 3: For greater than 1000m range standard isolated RS485 repeaters are required.

NOTE 4: There MUST be a ferrite bead fitted to one of the outgoing data lines and secured inside the EURO 46 case itself. The Ferrite bead is supplied packaged with a cable-tie which must be used to secure it in the case and prevent it shorting any electrical contacts.

There must also be a ferrite bead fitted to the data wires of a EURO-PROXE (if connected). The Ferrite bead is supplied with the reader.

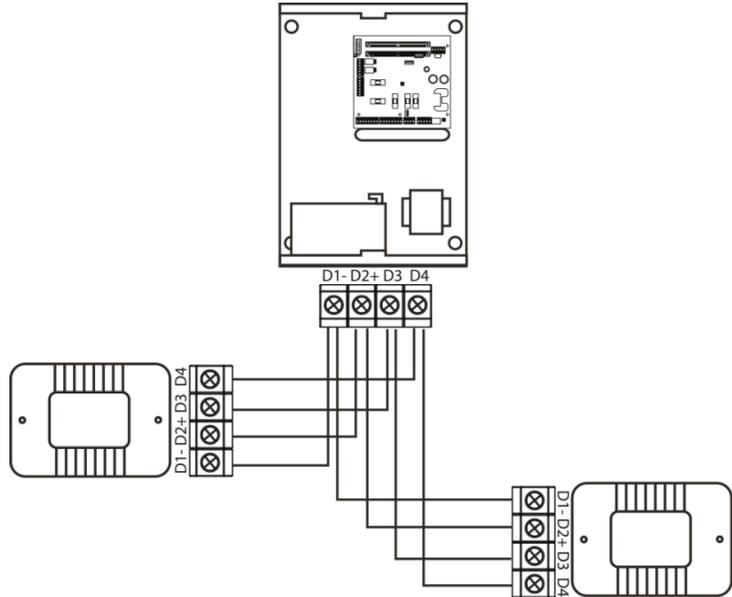
NOTE 5: If an expansion module with a power supply on board is connected, the D2+ terminal **MUST NOT** be connected between the main bus and module.

1.2.2 RS-485 Wiring

Cable type	Screened Cable	Bus range (m)	Wiring Format	
			Daisy Chain Range	Star Range
4 core alarm cable	Use when bus located near 230VAC mains power line	300m	No limit.	50m
6 core alarm cable doubling D1 (0v) and D2 (12v)		1000m		
Twisted pair		1000m		

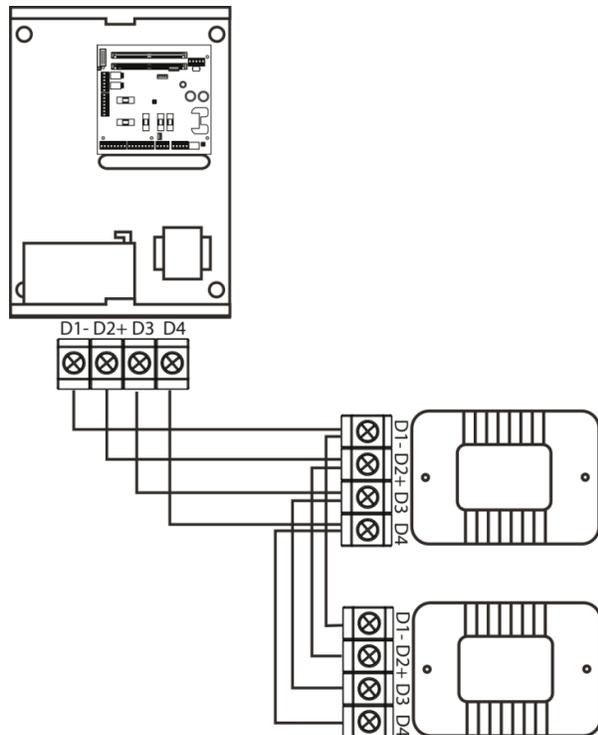
Daisy Chain Wiring Diagram

Example #1



Daisy Chain Wiring Diagram

Example #2



1.3 EURO Input Mapping Overview:**1.3.1 EURO 46 Input Mapping Table:**

DEVICES	Address	Input Numbers
EURO 46 PCB	PCB	1-8
EURO-ZEM8 / EURO-ZEM8+ / EURO-ZEM8+PSU / EURO-ZEM32-WE	0	9-16
	1	17-24
	2	25-32
	3	33-40
EURO-LCD	0	41-42
EURO-LCD / EURO-PROXI*	1	43-44
	2	45-46
Total		46

NOTE 1: 1 x EURO-ZEM32-WE can be connected to the EURO 46. This Zone Expander Module allows 32 inputs that are separated into 4 addresses (each address enables 8 wireless inputs). It is possible to mix the wired and wireless remote expanders.

When installing a EURO-ZEM32-WE, the first wireless expander (Address 0) will learn the 32 wireless keyfobs and 2 wireless sounders. If this expander is disconnected, the keyfobs and sounders will need to be learnt on another expander again.

***NOTE 2:** If the EURO-PROXI (Internal Tag Reader) is programmed as a 'Set/Unset' device, 2 inputs are enabled. If the EURO-PROXI is programmed as 'Entry Control' or 'Access Control' only 1 input is enabled.

1.4 Output Mapping Overview**1.4.1 EURO 46 Output Mapping Table**

DEVICES	Address	Output Numbers
EURO 46 PCB	PCB	5 (2 shared)
ATE Outputs (using communication loom)	Loom	10
EURO-OEM8R8T / EURO-OEM16R+PSU	0	1-16
	1	17-32
EURO-ZEM8 / EURO-ZEM8+ / EURO-ZEM8+PSU	0	1-4
	1	1-4
	2	1-4
	3	1-4
EURO-LCD	0	1
EURO-LCD / EURO-PROXI / EURO-PROXE	1	1
	2	1
	3	1
	4	1
	5	1
Total		69

2. Installation

1. Unscrew and remove the cover of the EURO 46 (Figure 1).
2. Install the supplied stand offs if needed before you mount the metal case to the wall (Figure 3).

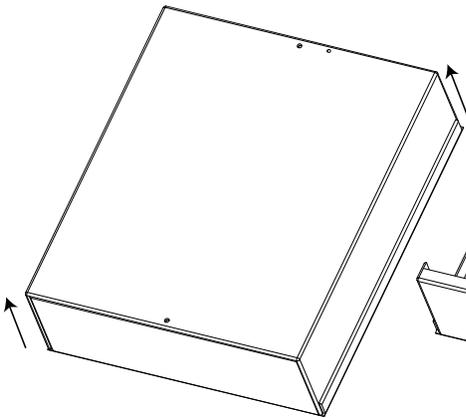


Figure 1.

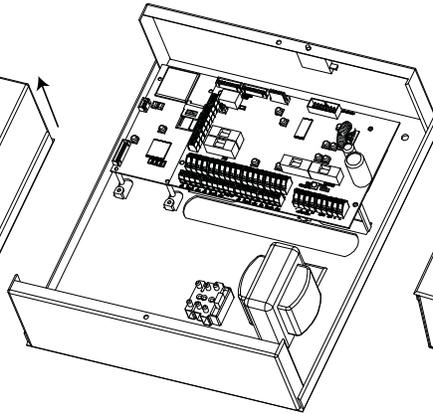


Figure 2.

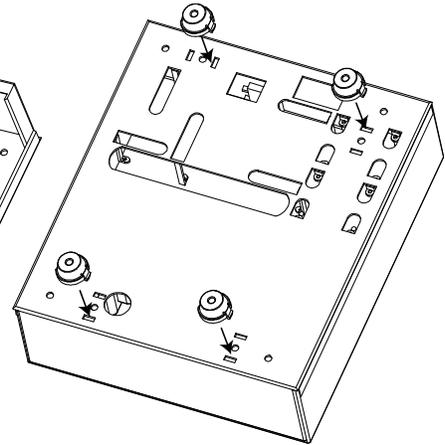
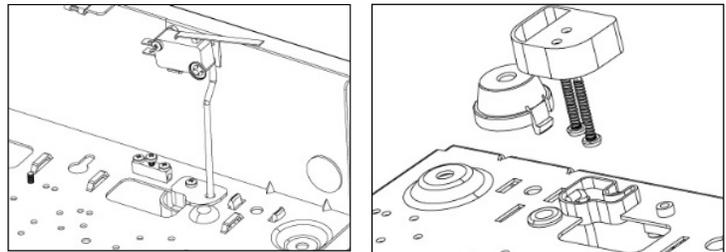
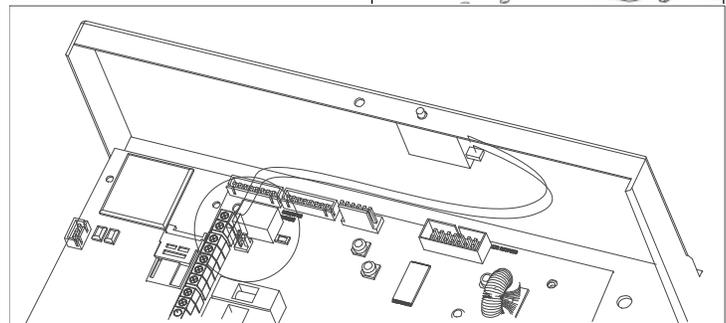


Figure 3.

3. If required, connect any other devices before powering up the system.
4. The modem is already connected. Wire the telephone line if the DIGI 1200 (PSTN modem) is used. See page: 46.
5. Screw the back metal plate to the wall.
6. **EURO 46 Large Box:** The tamper mechanism comes already fitted and will operate properly once the casing is fitted to the wall. If using the stand offs, the following will need to be used for the rear tamper mechanism to work correctly.



7. **EURO 46 Small Box:** The tamper mechanism comes already fitted as shown – but will need the cable connecting to the PCB (as highlighted in this diagram).



8. Secure all the wires and close the enclosure making sure the tamper is operational
9. Turn on the power to the EURO 46.

3. The Printed Circuit Board

1] Output 1

Relay output. See page: 16.

2] External sounder connections and Speaker connection

Connects an external sounder (page: 17) and a 16ohm speaker (page: 16).

3] Input connections

8 Fully programmable inputs. See page: 14.

4] Tamper (hold off)

Tamper protection for the metal casing.

5] Auxiliary 12V power

12V power supply.

6] Inputs or Outputs

Inputs 7 and 8 may be programmed as outputs if unused. See page: 16.

7] RS485 bus terminals

Connects peripherals. See page: 4.

8] Battery connection:

For battery power up. See page: 12.

9] Earth & 17V AC connection

Connects the AC transformer 17V supply. See page: 12.

10] Battery select and connect switch

For battery power up. See page: 12.

11] Communication Outputs

Connects the supplied communication loom to enable an additional 9 programmable outputs. These are low current and would normally be used when connecting a stand-alone communicator to the control panel. See page: 11.

12] RS232 Connection

This connection is used for an RS232 lead that will connect to a PC to allow uploading and downloading of data using the InSite software. See page: 49.

13] Modem

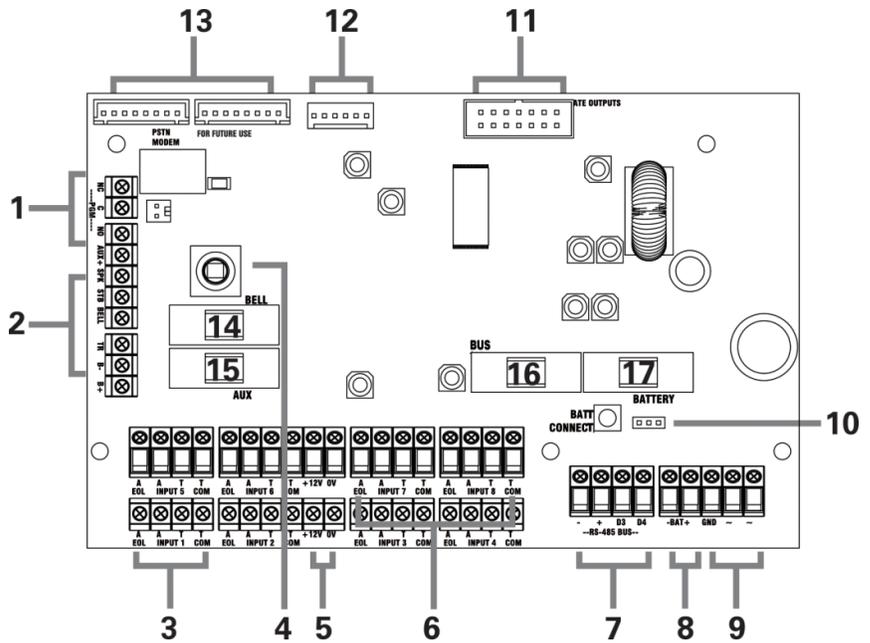
Connection for a Digi 1200 (PSTN) modem OR DIGI-GSM modem. Do not use the connector that is labelled 'FOR FUTURE USE'. See page: 46.

14] Bell Fuse

15] Auxiliary Fuse

16] Bus Fuse

17] Battery Fuse



3.1 Technical Specification

Programmable Outputs	Power Rating	Normal State	Active State
PGM 1	Relay, 3A, max 30V	Changeover NC & NO	Changeover NC & NO
Speaker	16 ohms	No tones	Repeat RKP tones & internal sounder
Strobe Output	500mA	12v	0v
Bell Output	500mA	12v	0v
XPGM 1 (Input 7)	50mA	Floating	0v
XPGM 2 (Input 8)	50mA	Floating	0v
ATE Outputs	2mA	5v	0v

All outputs are programmed in "CHANGE OUTPUTS" in the Engineer menu.

Input Resistance	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Normal	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Burglary Alarm	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Fault	6k to 8k1	8k to 11k3	10k3 to 14k9
Masking (6k8)	8k2 to 17k	11k6 to 22k	15k to 22k
Tamper	<0k5 or <17k	<1k4 or >22k	<3k7 or >23k

All inputs are programmed in "PROGRAM INPUTS" in the Engineer menu.

Fuses	Value	Type
Bell Fuse for bell terminals	F800mA quick blow 250V	Glass
Aux Fuse for aux terminals	F800mA quick blow 250V	Glass
RS485 Bus Fuse for bus terminals	F800mA quick blow 250V	Glass
Battery Fuse for battery terminals	F1.6A quick blow 250V	Glass
230V Mains Fuse for mains terminals	T500mA H anti-surge slow blow 250V	Ceramic

Panel Power Supply Output	Nominal	Range
Output Voltage	13.7V DC	10-15V DC
Output Current EURO 46S	1A Continuous	1.5A peak, during battery charging
Output Current EURO 46L	1.5A Continuous	2.0A peak, during battery charging

Power Supply Type A.

Maximum output peak voltage: Max 100 mV

SD Voltage which the deep discharge protection function will operate at: 10.5V

Over Voltage Protection Trigger Voltage: 18V

NOTE 1. EURO power supplies are NOT designed for use with multiple batteries connected.

NOTE 2. System load should not exceed the panel power supply output shown above or the maximum load supportable by the battery for the specified backup time, as in the table shown below.

NOTE 3. The power ratings are based on battery shown in table – but ANY battery capable of supporting the system load for the required time may be used without affecting these ratings.

Panel Power Supply Input	Nominal	Range
Mains Supply Voltage AC	230V AC at 50Hz	-15% +10%
Transformer Rating EURO 46S	18VA	18V at 1.0A
Transformer Rating EURO 46L	45VA	18.5V at 2.5A

Battery Charging Specification

		Control Panel Type	
Float Voltage	13.8v DC	Standby battery capacity current	
Battery low voltage cut off	10.5v	Standby battery capacity current	300mA (2A to 6A)
Recharge time	<24 Hours	Standby battery capacity current	700mA (7A to 17A)

EN50131-6:2008 Rated Output		
In accordance with EN50131-6:2008, the EURO standby times and effective output currents depend on the Security Grade of the system and how 230V mains missing fault is signalled to the Alarm Receiving Centre. Power supplies are rated in accordance with the requirements of EN50131-6, which are related to the maximum battery size that can be accommodated in the housing and vary according to the grade of the system in which they are installed, as per the following table:		
Electrical Capability		EN50131-6 Rating. Maximum Load
Example Battery Model		Grade 2 Grade 3
Yuasa NP7-12		0.5A 0.3A
Yuasa NP17-12		1.2A 0.7A
EN50131-1:2006+A1:2009 (30 hrs if notified to an ARC) for 17Ah battery = 477mA (Grade 3). EN50131-1:2006+A1:2009 (60 hrs if not notified to an ARC) for 17Ah battery = 193mA (Grade 3).		
EURO 46 PCB Current Consumption		Environmental
Quiescent	80mA	Operational -10°C to +40°C, Certified
User Code and Tag Guessing		Storage -20°C to +60°C
4-digit codes	10,000	Humidity 75%
6-digit codes	100,000	Dimensions
Disallowed codes	None	EURO 46L 390 x 305 x 100mm Weight: 11.5kg inc battery
All codes	16 ¹²	EURO 46S 250 x 297 x 82mm Weight: 4.8kg inc battery
According to EN50131-3:2009 Annex B		EURO 46 Printed Circuit Board 170 x 90 x 30mm
According to spec of manufacturer of RFID components used		EN50131 Grading
		EURO 46S = Grade 2. EURO 46L = Grade 3

The below table is specifies ATS (Alarm Transmission System) performance criteria in accordance with the requirements of EN50136-1-1.

Notification Equipment	Grade 2 Criteria			
	Option A	Option B	Option C	Option D
Remotely powered external sounder	2	Optional	Optional	Optional
Self-powered external sounder	Optional	1	Optional	Optional
Main Communication Path (ATS)	ATS 2	ATS 2	ATS 2	ATS 3
Second Communication Path (ATS)	Optional	Optional	ATS 1	Optional

Notification Equipment	Grade 3 Criteria			
	Option A	Option B	Option C	Option D
Remotely powered external sounder	2	Optional	Optional	Optional
Self-powered external sounder	Optional	1	Optional	Optional
Main Communication Path (ATS)	ATS 4	ATS 4	ATS 4	ATS 5
Second Communication Path (ATS)	Optional	Optional	ATS 3	Optional

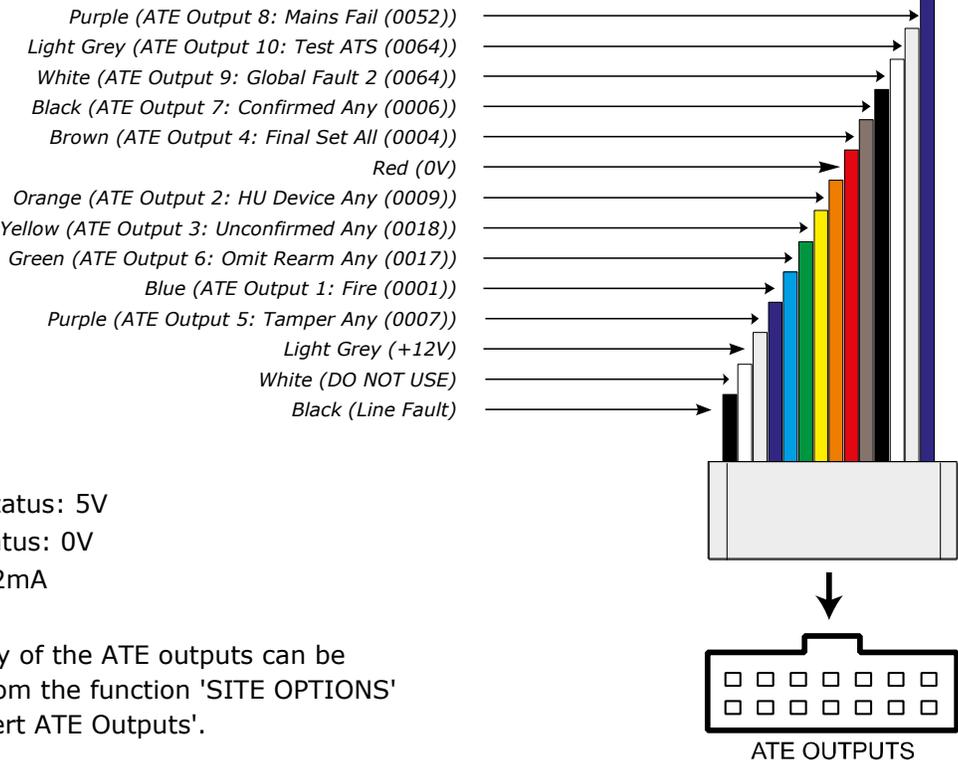
When used with a supervised premises transceiver, options 'Grade 3 Option D' is supported. The use of the Digi Modem restricts the options up to 'Grade 2 Option B'.

3.2 Important Installation Notes

- Ensure wiring is done to the national wiring regulations in the country where the installation is taking place. In the UK, this is BS 7671 Requirements for electrical installations; IET Wiring Regulations (17th edition). If in doubt, consult a local qualified electrician.
- Ensure that a readily accessible disconnect device incorporated in the premises installation wiring shall be provided external to the equipment with a contact separation of at least 3,0mm and connected as closely as possible to the supply. Example: Fused Spur Unit
- When fixing external wires, ensure that means are provided in the installation to prevent the SELV (Safety Electrical Low Voltage) or signal circuits from coming into contact with live parts of the power supply circuit. Wires shall be fixed near their terminal blocks.
- The end of stranded conductor shall not be consolidated by soft soldering at places where the conductor is subjected to contact pressure. Example: Must not solder ends of wires which are to be secured in detector and control panel terminal connectors.
- On completion of wiring use tie-wraps to prevent any loose wires causing a safety hazard (material of cables tie shall be rated at least HB or better).
- Cables ties and hoses shall be separate for power supply cable and SELV (Safety Electrical Low Voltage) wirings.
- Size of protective bonding conductors: minimum section 1.5mm². Example: Electrical Earth wire connections.

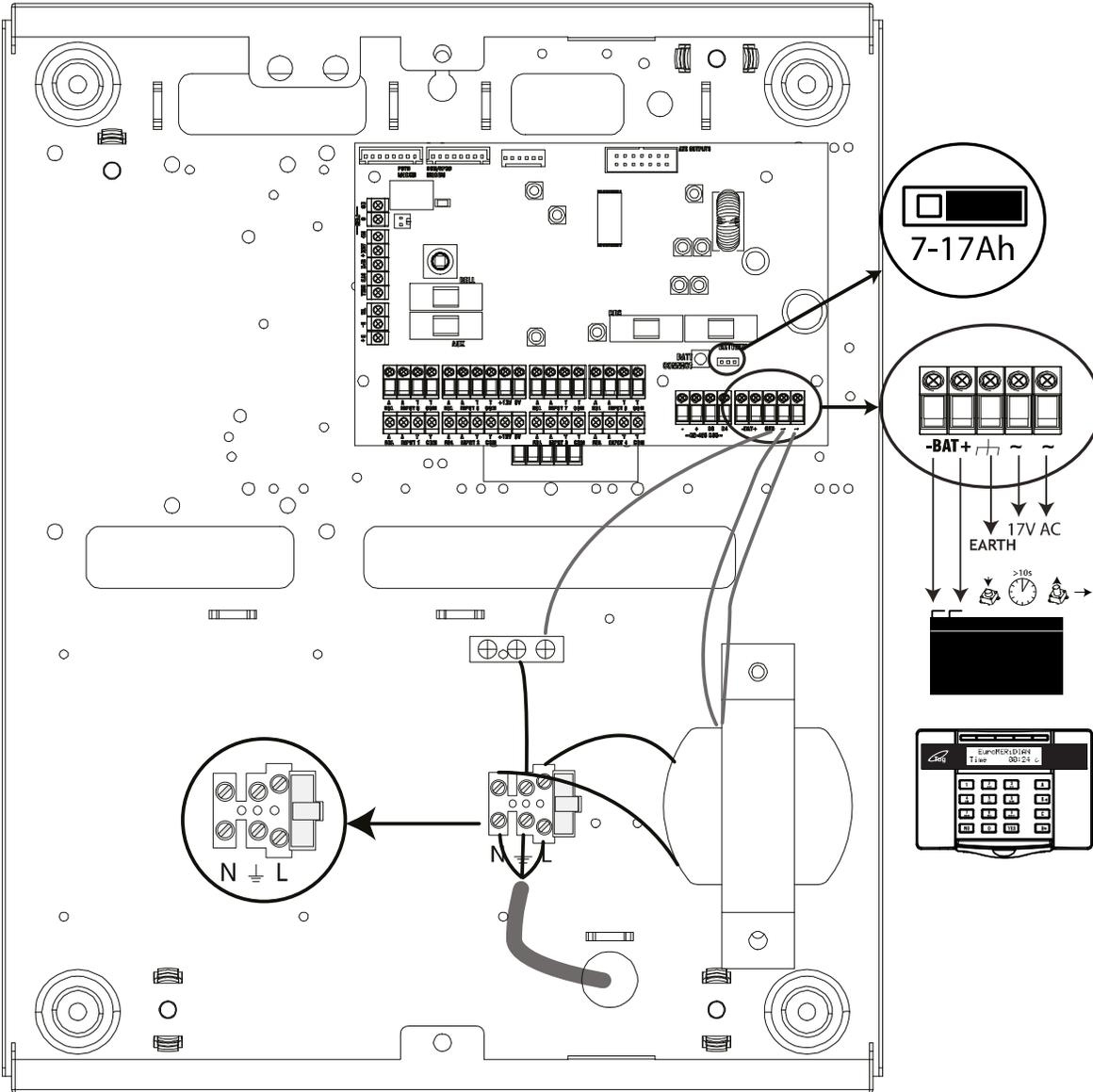
3.3 Communication ATE Loom

The ATE low power outputs are programmed in the engineer function: **'CHANGE OUTPUTS->Endstation PGMs'**.



3.4 Power and Battery Connections

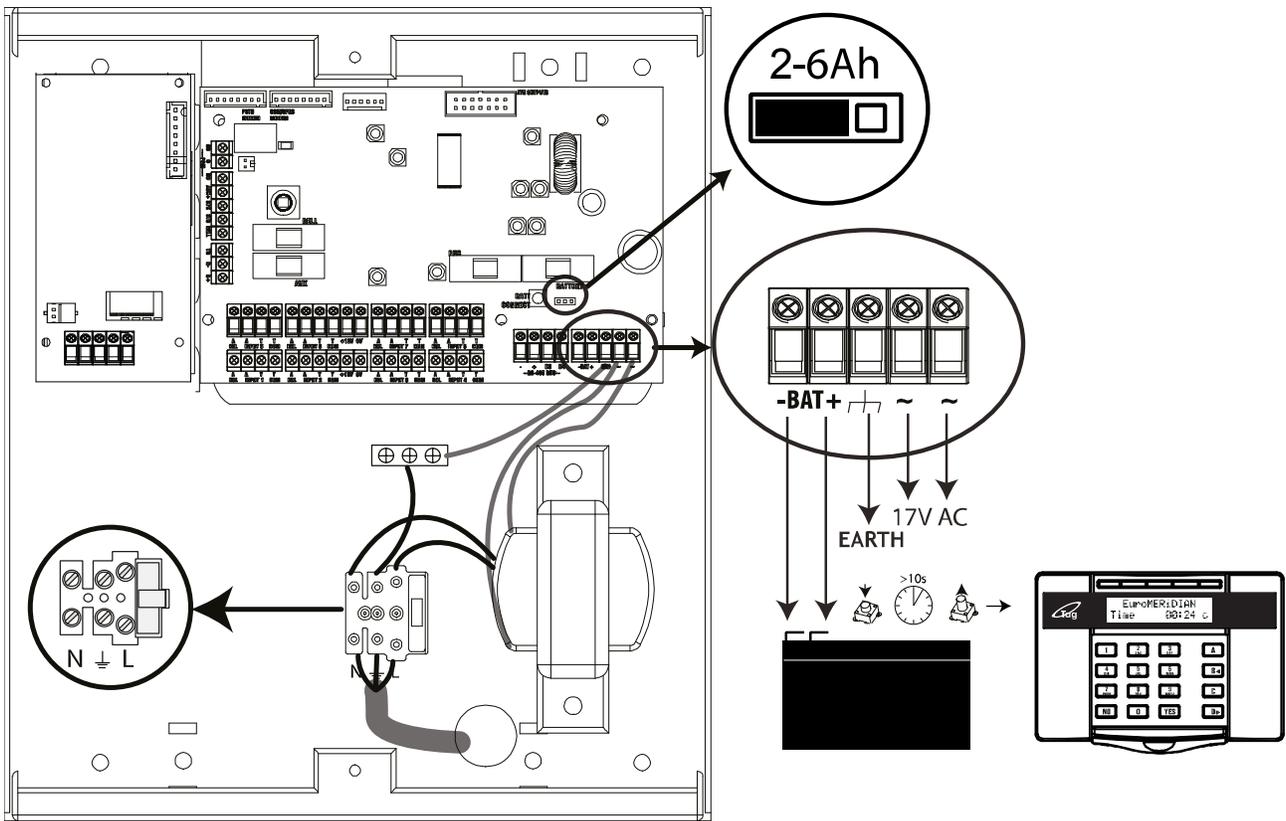
3.4.1 The EURO 46 Large (Grade 3)



Panel Power Supply Input		Nominal	Range
Mains Supply Voltage AC		230V AC at 50Hz	-15% +10%
Transformer Rating EURO 46L		45VA	18.5V at 2.5A
Panel Power Supply Output		Nominal	Range
Output Voltage		13.7V DC	10-15V DC
Output Current EURO 46L		1.5A Continuous	2.0A peak, during battery charging
Power Supply Type A.			
Battery Charging Specification			
Float Voltage	13.8v DC	Control Panel Type	
Battery low voltage cut off	10.5v	Standby battery capacity current	300mA (3A to 6A)
Recharge time	<24 Hours	Standby battery capacity current	700mA (7A to 17A)
Fuses		Value	Type
230V Mains Fuse for mains terminals		T500mA H anti-surge slow blow 250V	Ceramic

NOTE: The battery connect button is only used if no mains is present and a battery power up is required.

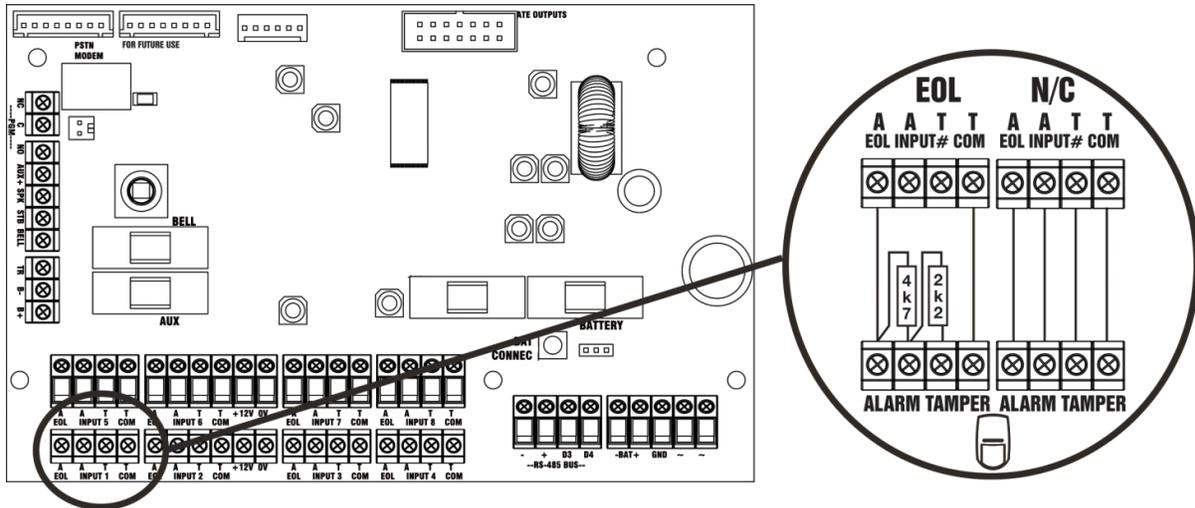
3.4.2 The EURO 46 Small (Grade 2)



Panel Power Supply Input	Nominal	Range
Mains Supply Voltage AC	230V AC at 50Hz	-15% +10%
Transformer Rating EURO 46S	18VA	18V at 1.0A
Panel Power Supply Output	Nominal	Range
Output Voltage	13.7V DC	10-15V DC
Output Current EURO 46S	1A Continuous	1.5A peak, during battery charging
Power Supply Type A.		
Battery Charging Specification		
Float Voltage	13.8v DC	Control Panel Type
Battery low voltage cut off	10.5v	Standby battery capacity current
Recharge time	<24 Hours	Standby battery capacity current
		300mA (3A to 6A)
		700mA (7A to 17A)
Fuses	Value	Type
230V Mains Fuse for mains terminals	T500mA H anti-surge slow blow 250V	Ceramic

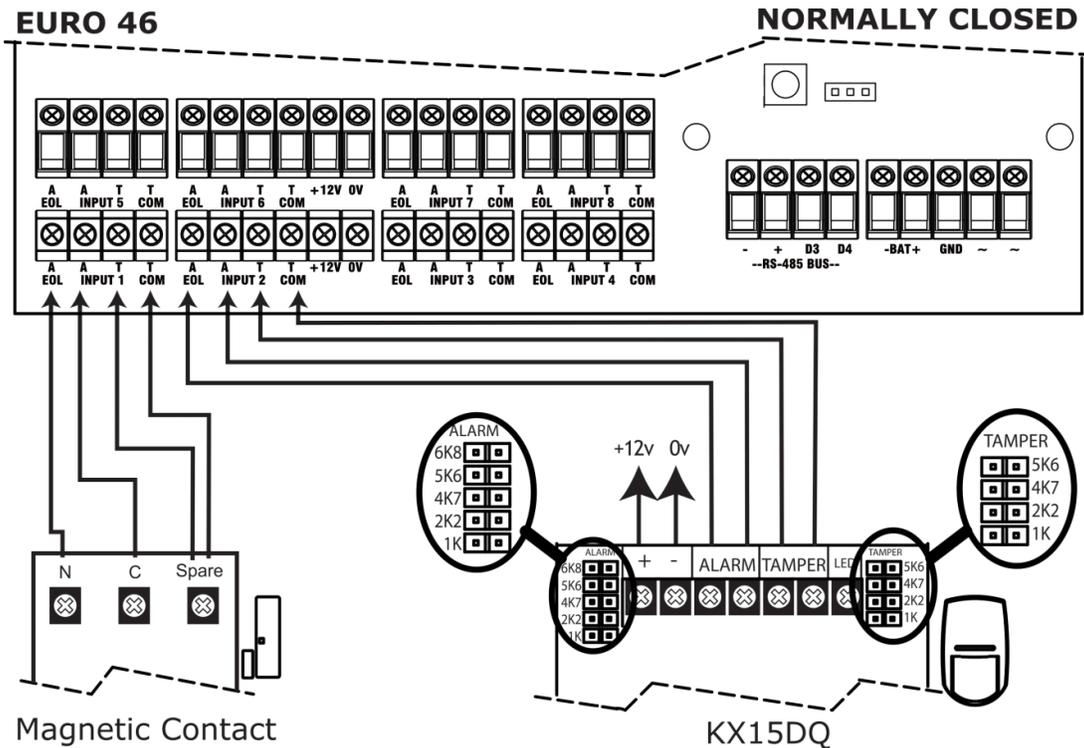
NOTE: The battery connect button is only used if no mains is present and a battery power up is required.

4. Input Connections



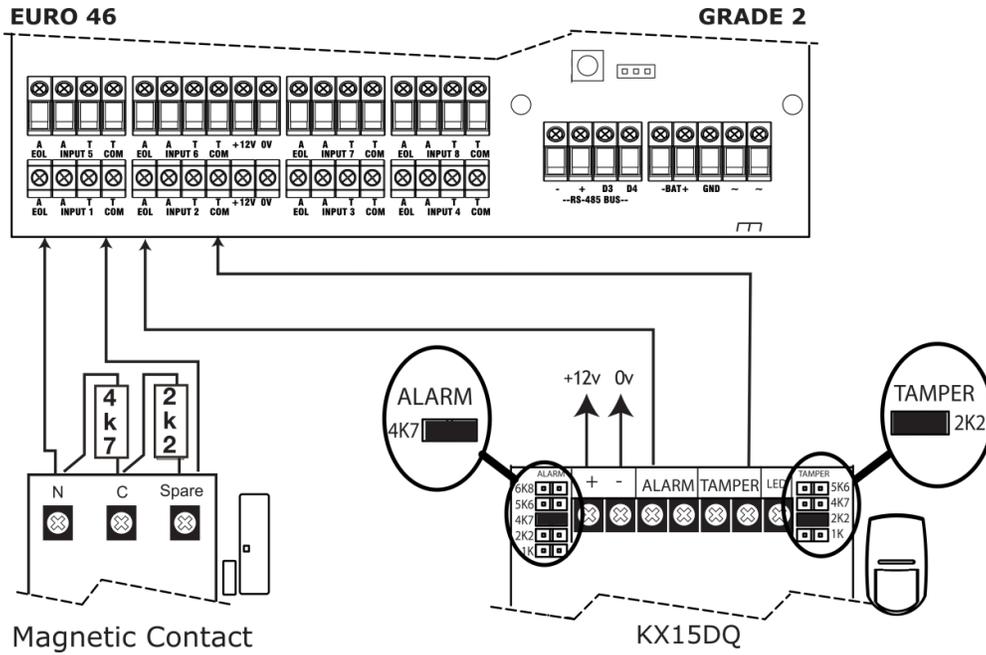
Input Resistance	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Normal	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Burglary Alarm	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Fault	6k to 8k1	8k to 11k3	10k3 to 14k9
Masking (6k8)	8k2 to 17k	11k6 to 22k	15k to 22k
Tamper	<0k5 or >17k	<1k4 or >22k	<3k7 or >23k

4.1 Normally Closed Input Wiring



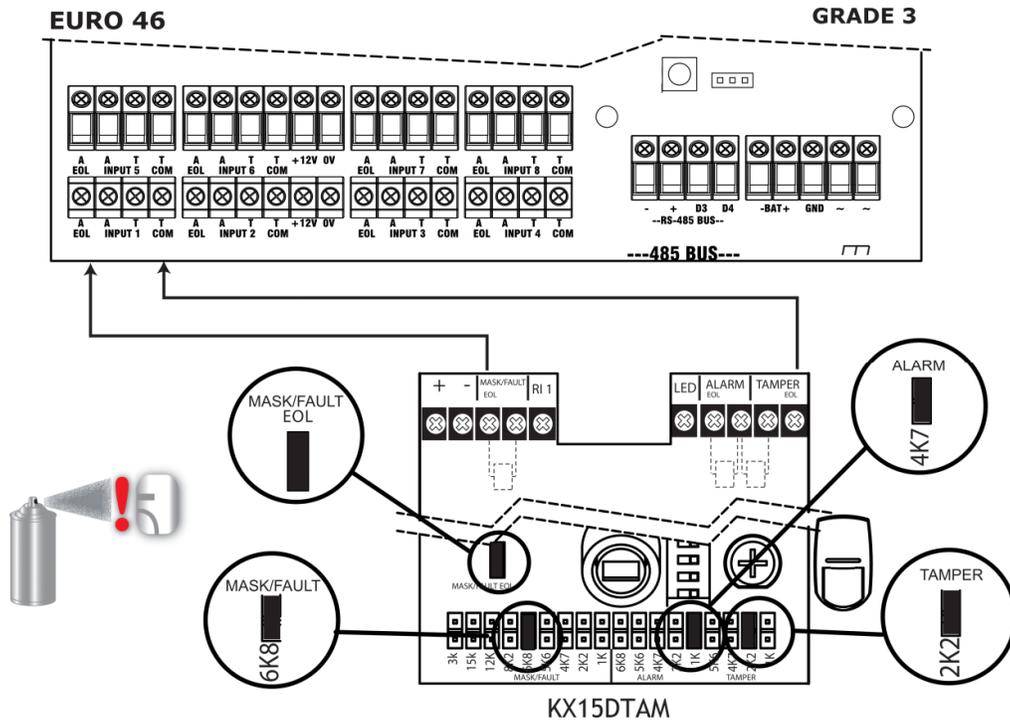
The above wiring example shows the normally closed connections for a KX15DQ PIR detector.

4.2 Default Grade 2 DEOL (Double End of Line) Input Wiring



The above wiring example shows the connections for a Grade 2 KX15DQ PIR detector.

4.3 Grade 3 Mask/Fault Input Wiring

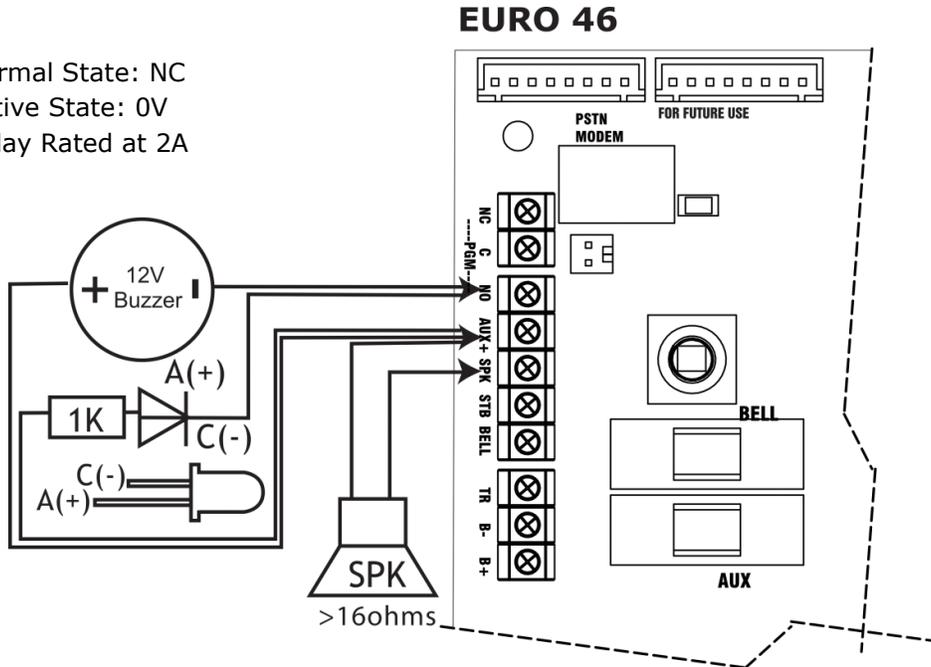


The above wiring example shows the connections for a Grade 3 KX15DTAM detector.

5. Output (PGM) Connections

5.1 Negative Applied Wiring

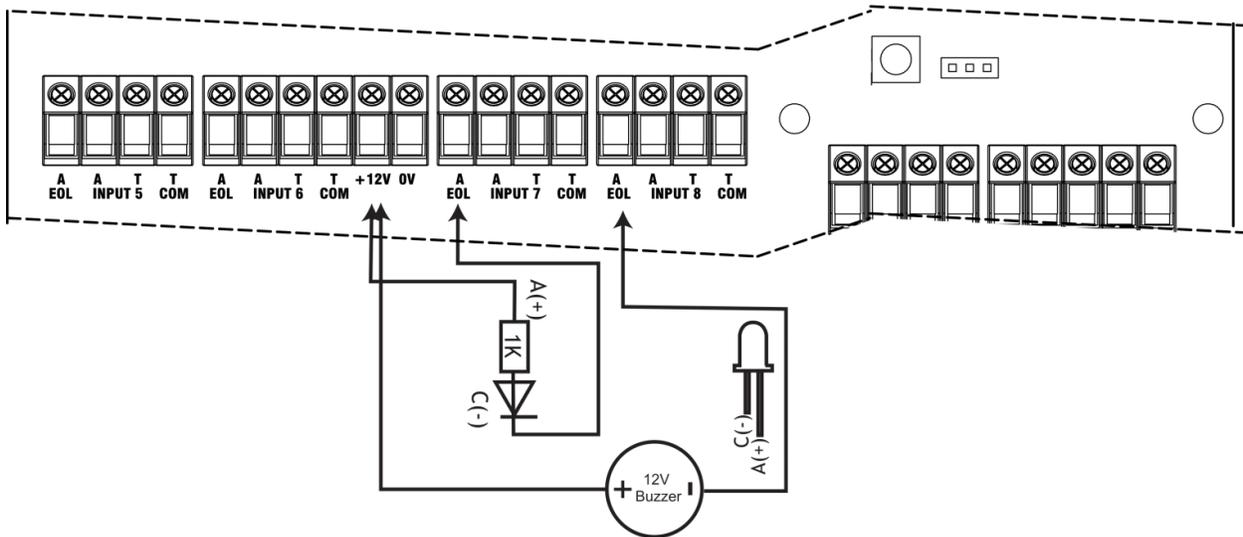
Normal State: NC
 Active State: 0V
 Relay Rated at 2A



5.2 XPGM Connections

If Inputs 7 and 8 are programmed as 'unused', these inputs can be used as 2 further outputs (known as XPGM1 and XPGM2 which can be programmed in the Engineer menu 'CHANGE OUTPUTS').

EURO 46



6. External Sounder Connections

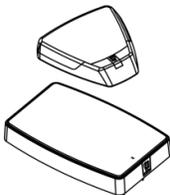
6.1 Grade 3 External Sounder Wiring

Pyronix Grade 3 External Sounders:

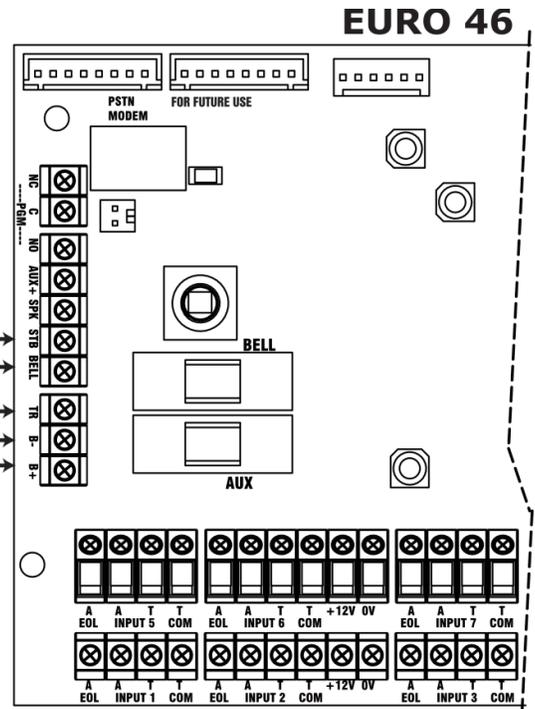
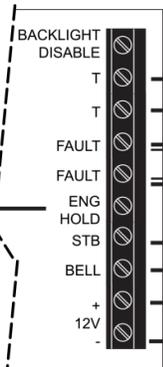
Deltabell Plus
Deltabell X
Invincibell Plus
Invincibell X



GRADE 3



INVINCIBELL/
DELTABELL



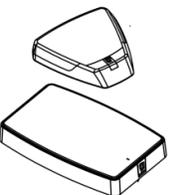
6.2 Grade 2 External Sounder Wiring with a Grade 3 Bell

Pyronix Grade 3 External Sounders:

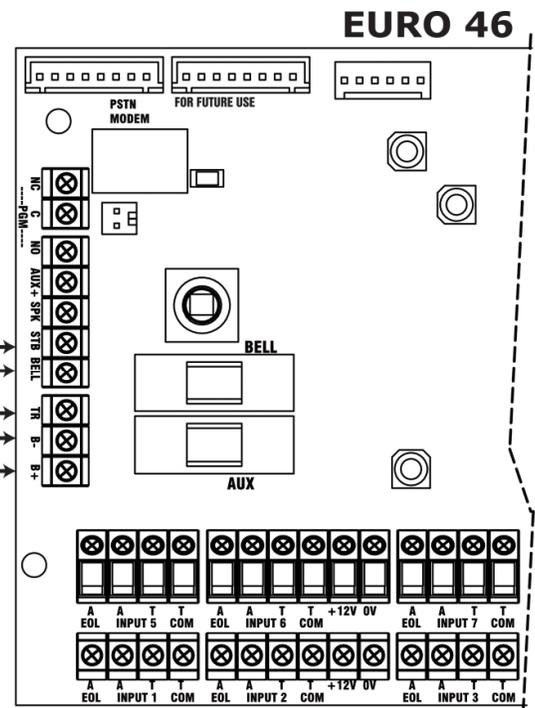
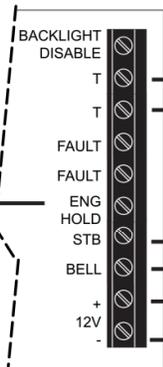
Deltabell Plus
Deltabell X
Invincibell Plus
Invincibell X



GRADE 2



INVINCIBELL/
DELTABELL



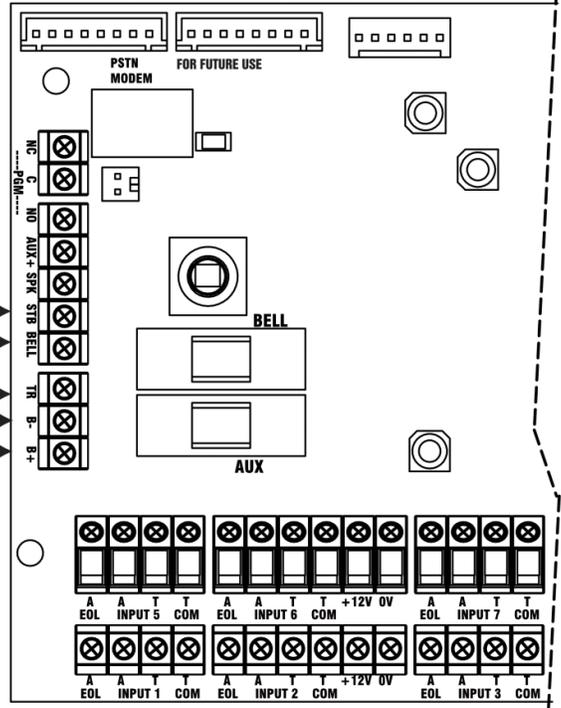
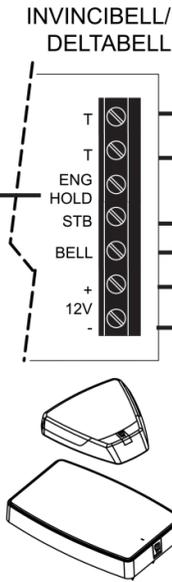
6.3 Grade 2 External Sounder Wiring

Pyronix Grade 2
External Sounders:

Deltabell E
Invincibell E



GRADE 2



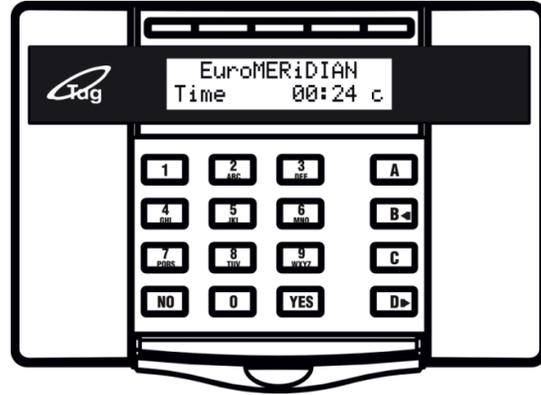
7. Connecting The EURO Peripherals

7.1 Connecting The LCD Keypad (EURO-LCD)

The EURO-LCD keypad is used for programming and user operation.

The EURO 46 can have up to 6 x EURO-LCD keypads installed.

NOTE: See the keypad installation manual for the LED and button explanations.



7.1.1 Technical Specification

EURO-LCD (Keypad)			
Supply Voltage:	13.8VDC (9-16VDC Range)		
Current: Min Brightness:	25mA		
Current: Max Brightness:	45mA (in alarm: 55mA)		
Inputs 1 & 2:	Programmable, DEOL, Mask/Fault (Grade 3)		
Input EOL Resistor Values	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Normal	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Burglary Alarm	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Fault	6k to 8k1	8k to 11k3	10k3 to 14k9
Masking (6k8)	8k2 to 17k	11k6 to 22k	15k to 22k
PGM:	100mA		
PGM Normal State:	Floating		
PGM Active State:	0V		
Dimensions:	139 x 127 x 29mm		
EN50131 Certified:	Grade 3		
Colour and Casing:	White 3mm ABS		
Indication:	LEDs (Alert, Alarm, Fault, Tamper, Disarmed)		
Temperature	Storage: -10°C to +50°C Certified: -10°C to +50°C Nominal: -10°C to +40°C		
Front and rear tamper protected			

7.1.2 Addressing The EURO-LCD Keypad

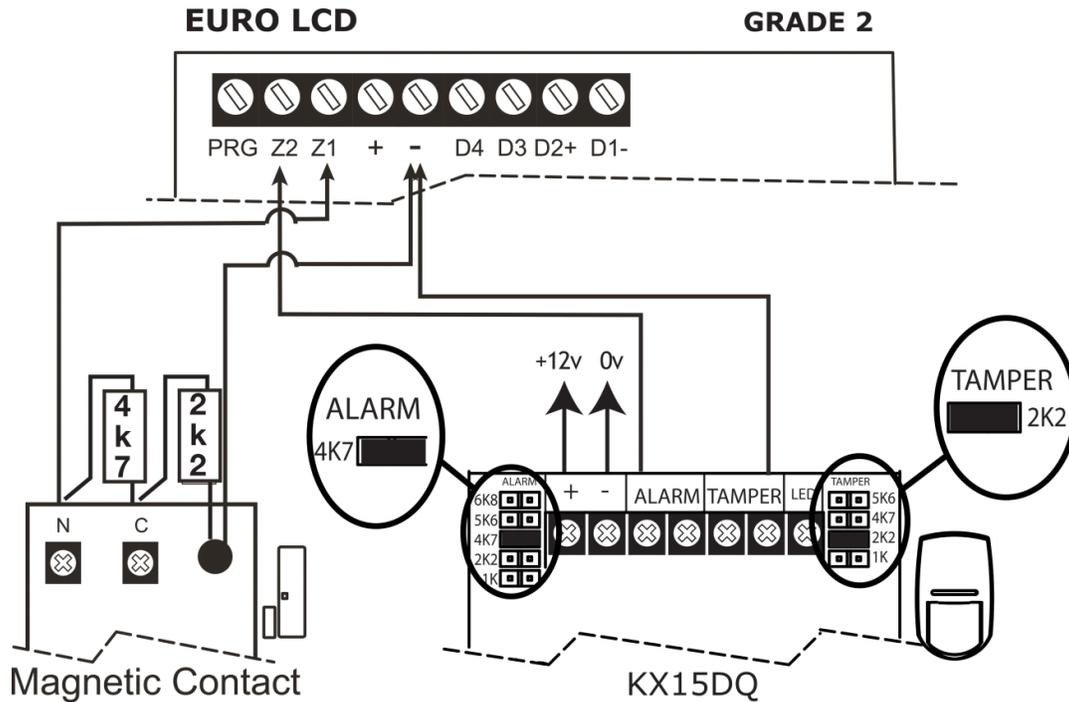
<p>Addressing</p> <p>Hold the <input type="button" value="D"/> key for more than 5 seconds.</p>	
<p>'SECURITY CODE' will be displayed. Enter '2000'</p>	

<p>The default address is '00'.</p>	
<p>Enter the required Address and press YES</p> <p>Press A to exit.</p> <p>You must now address is from the menu "ASSIGN KEYPADS/READERS".</p>	

7.1.3 Addressing the EURO-LCD Keypad (From the Engineer Menu)

Enter the engineers menu and scroll to 'ASSIGN KEYPADS/READERS' and press **YES**. Please see the Programming Manual for more information.

7.1.4 Connecting the EURO-LCD Keypad Inputs (Grade 2)



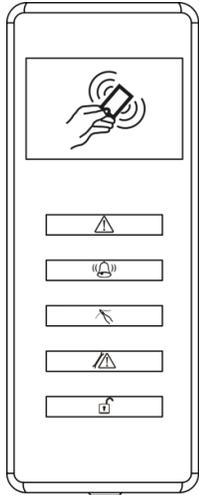
The above wiring example shows the connections for a Grade 2 KX15DQ PIR.

7.2 Connecting The Internal Tag Reader (EURO-PROXI)

The Internal Tag Reader can have 2 inputs connected. It can be used as a set, unset, entry control or an access control device.

NOTE: See the reader installation manual for the LED and button explanations.

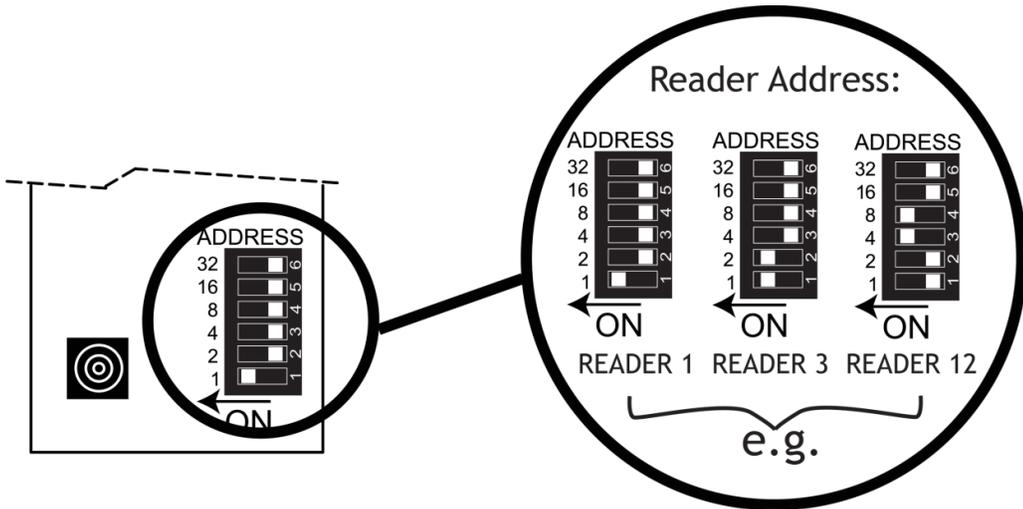
NOTE: The total number of readers that can be installed on the EURO 46 is 5. The readers are installed on the same bus as the keypads.



7.2.1 Technical Specification

EURO-PROXI (Internal Tag Reader)	
Input Voltage:	12VDC (9-15V DC range)
Supply Current:	<30mA Quiescent. <90mA Maximum
Inputs:	Programmable. 2 inputs; DEOL
Input EOL <u>Fixed Resistor Values:</u>	Alarm=4K7 / Tamper=2K2 Normal: 1k4 to 2k9 Burglary Alarm:4k2 to 7k8 Tamper: <1k4 or >22k
Shared Outputs:	Switched negative 150mA (Max)
Colour and Casing:	White 3mm ABS
Indication:	LEDs (Alert, Alarm, Fault, Tamper, Disarmed)
Temperature:	Storage:-20°C to 60°C Certified: -10°C to 40°C Nominal: -20°C to 60°C
Dimensions (H x W x D):	97 x 40 x 23mm
Front and rear tamper protected	
NOTE: If the EURO-PROXI (Internal Tag Reader) is programmed as a 'Set/Unset' device, 2 inputs are enabled. If the EURO-PROXI is programmed as 'Entry Control' or 'Access Control' only 1 input is enabled.	

7.2.2 Addressing the Internal Tag Reader (From the Reader)

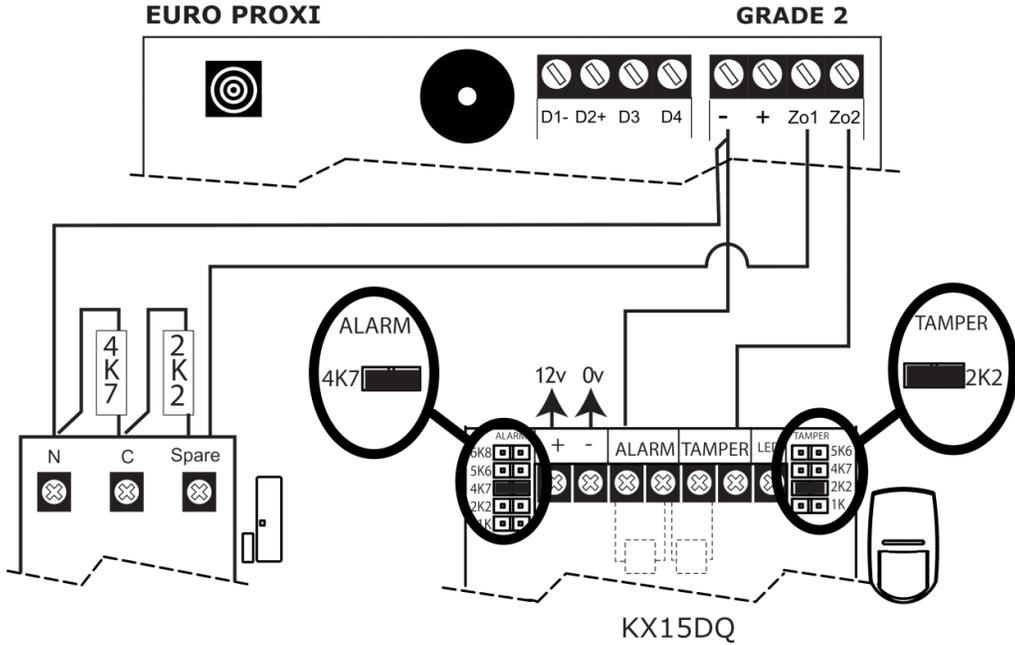


NOTE: The addressing is done by adding the relevant numbers on the dip switches:
For example: Dip switch 1 and 2 are only ON = Address 3.
Dip switch 1 and 16 are only ON = Address 17 etc.

7.2.3 Adding the Internal Tag Reader (From the Engineer Menu)

Enter the engineers menu and scroll to 'ASSIGN KEYPADS/READERS' and press [YES]. Please see the Programming Manual for more information.

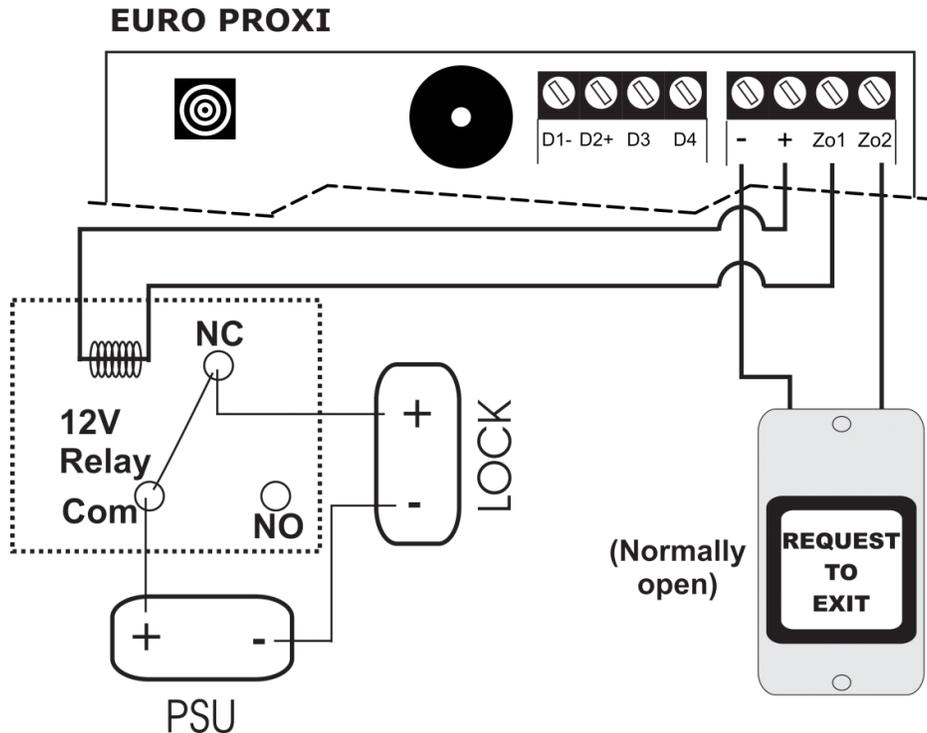
7.2.4 Connecting the Internal Tag Reader Inputs



The above wiring example shows the connections for a Grade 2 KX15DQ PIR.

NOTE: The resistance values are fixed to 4K7 Alarm and 2K2 Tamper in the EURO-PROXI.

7.2.5 Using the Internal Tag Reader as Access Control/Entry Control



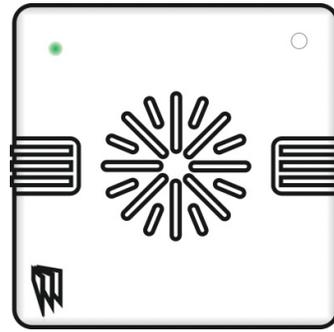
7.3 Connecting The External Proximity Reader (EURO-PROXE)

The External Proximity Reader can be used as either a set unset, entry control or an access control device.

NOTE: See the reader installation manual for the LED and button explanations.

NOTE: The total number of readers that can be installed on the EURO 46 is 5. The readers are installed on the same bus as the keypads.

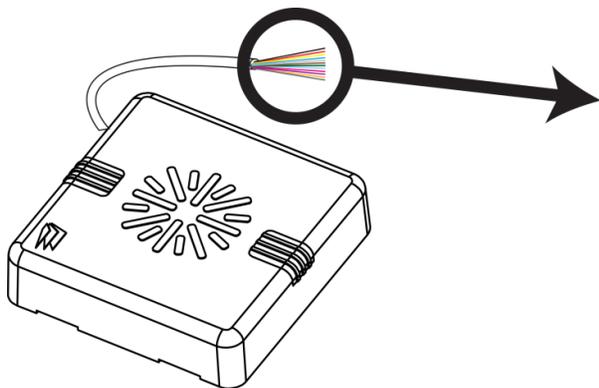
NOTE: The Reader is supplied with a ferrite bead (RSUP023) that MUST be fit to the reader cable.



7.3.1 Technical Specification

EURO PROXE (External Tag Reader)	
Supply voltage:	9-15VDC
Current consumption:	Max 22mA
Input status when reader is Set/Unset or Ward Control:	
Input:	Programmable. DEOL
Input EOL fixed resistor value:	Alarm=4K7 / Tamper=2K2 Normal: 1k4 to 2k9 Burglary Alarm:4k2 to 7k8 Tamper: <1k4 or >22k
Input status when reader is used as Access or Door Entry Control:	
Input 1:	Programmable
Input Function:	Door monitor feature. Door opening time limit is programmable from the Engineer Menu
Input 2:	Not programmable
Note: Access control falls outside the scope of EN 50131	
Output 1:	Not programmable. Activates the Door Lock Relay
Output 2:	Not programmable. Door monitor alarm activation (forced or open for longer than programmed time).
Output 1/2 Normal state:	Floating
Output 1/2 Active state:	0V
Colour and Casing:	3mm ABS. Black
Potted	Type B
Temperatures:	Storage: -10°C to 50°C Certified: -25°C to 60°C Nominal: -10°C to 50°C
Dimensions (H x W x D):	85 x 85 x 21mm
IP65 Rated. If the control panel fails to set, this is indicated by a broken tone on the external proximity reader and the red LED will not illuminate. If this occurs, please check the information at the nearest keypad.	

7.3.2 Addressing the External Tag Reader (From the Reader)



ADDRESS #1: BROWN & ORANGE to 0V/D1

ADDRESS #2: BROWN & GREEN to 0V/D1

ADDRESS #3: BROWN to 0V/D1

ADDRESS #4: GREEN & ORANGE to 0V/D1

ADDRESS #5: ORANGE to 0V/D1

ADDRESS #6: GREEN to 0V/D1

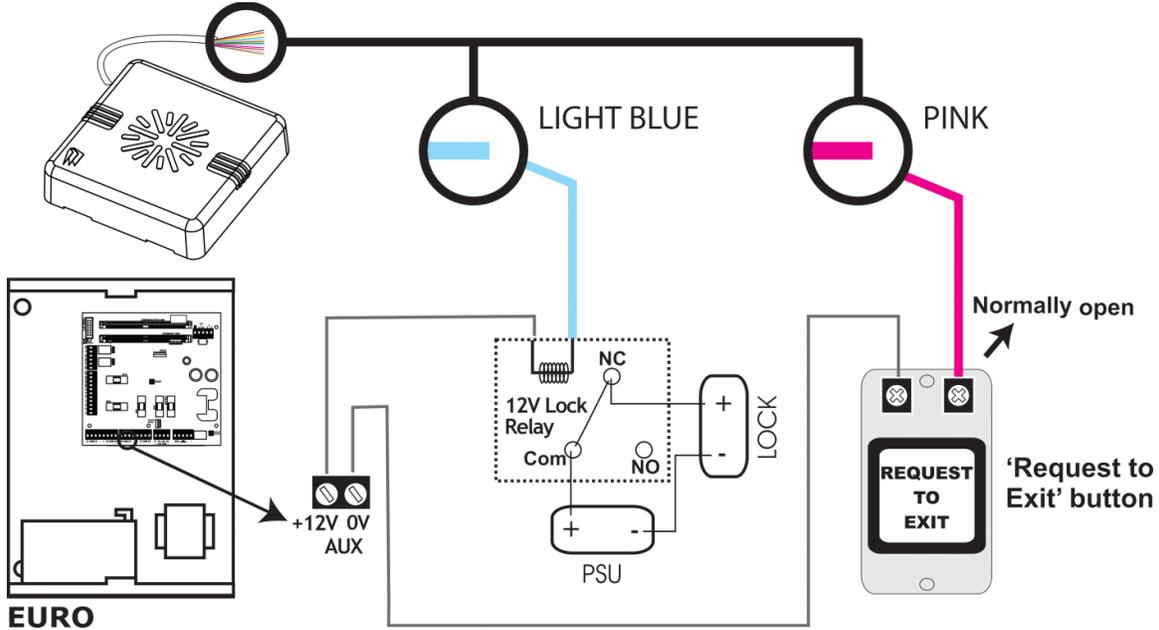
ADDRESS #7: BROWN, ORANGE & GREEN to 0V/D1

7.3.3 Adding the External Tag Reader (From the Engineer Menu)

Enter the engineers menu and scroll to 'ASSIGN KEYPADS/READERS' and press [YES]. Please see the Programming Manual for more information.

7.3.4 Connecting a Mag Lock and a Request to Exit Button to the External Tag Reader

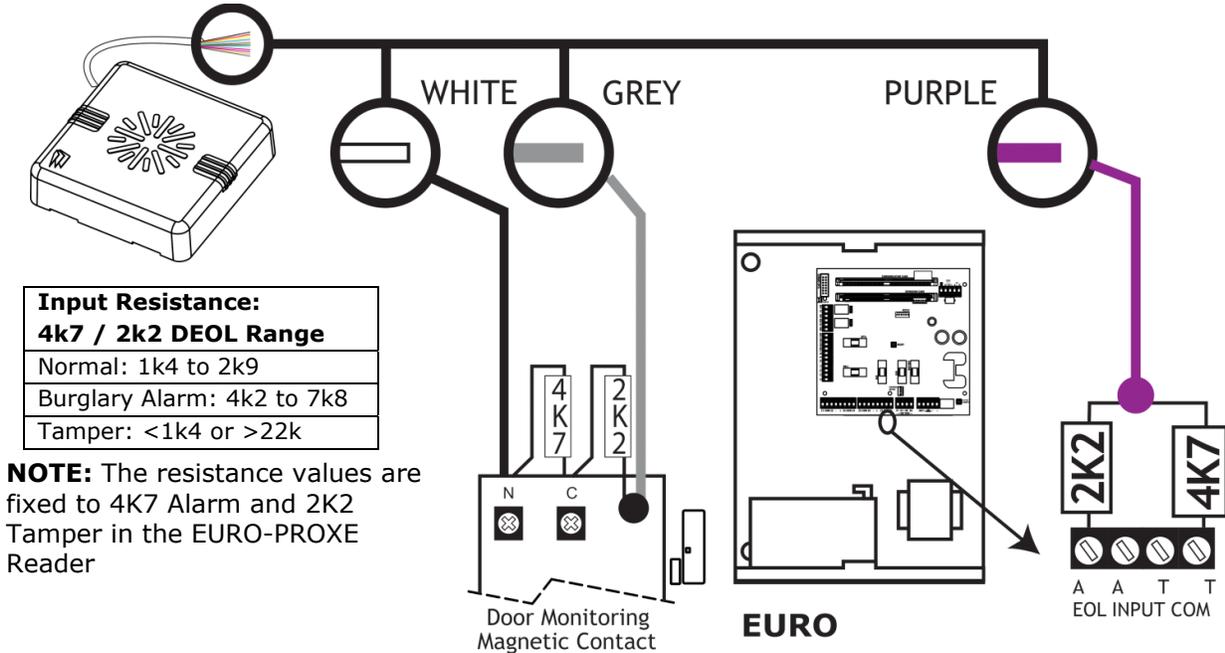
The diagram show the relay mag lock control switching positive and shows a normally open request to exit button, and takes "0V" from the control panel.



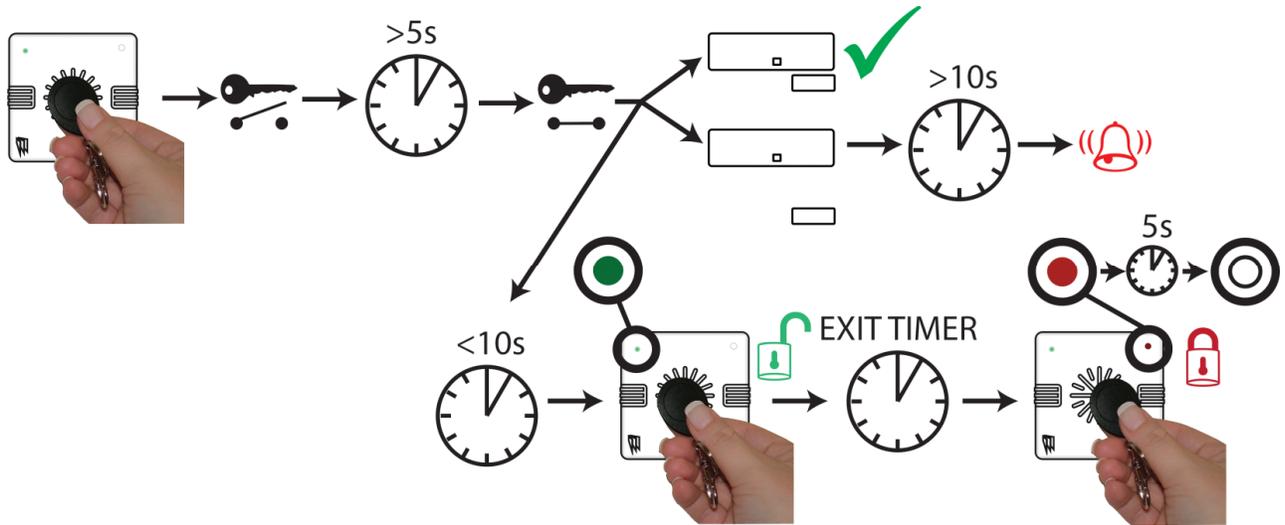
7.3.5 Connecting Door Monitoring and Door Alarm Monitoring to the External Tag Reader

Connecting Door Monitoring: Use the white and grey wire. The door monitor input needs to be programmed as the first input number of the reader address (programmed as "Entry Delay"). If the door contact is forced open without presenting a valid tag or pressing the push to exit button, then the panel will go into an alarm. **NOTE:** The DEOL values must be 4K7, 2K2 as shown. This does not affect the control panel DEOL values.

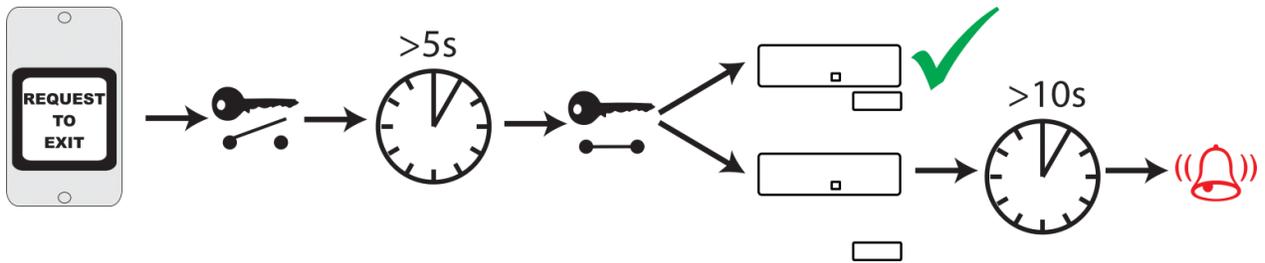
Connecting Door Alarm Monitoring: Use the purple wire. When the door monitor exceeds the door open time or if the door is forced open then the alarm PGM will generate an alarm. The input at the control panel should be programmed as "24 Hour" and the attribute programmed as "Normally Open".



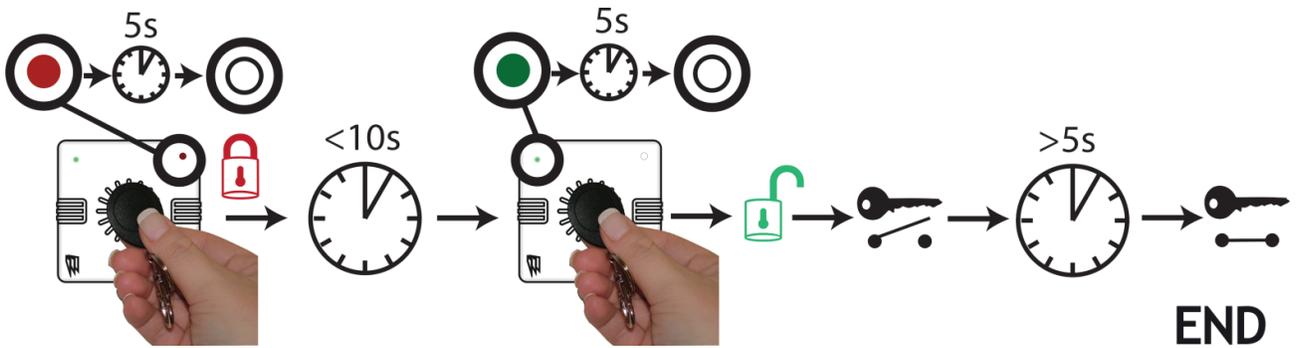
7.3.6 Using the External Tag Reader for Arming and Entry Control



7.3.7 Using the Request to Exit button



7.3.8 Using the External Tag Reader Disarming



7.4 Connecting The Zone Expander Module (EURO-ZEM8)

7.4.1 The EURO-ZEM8 Expander

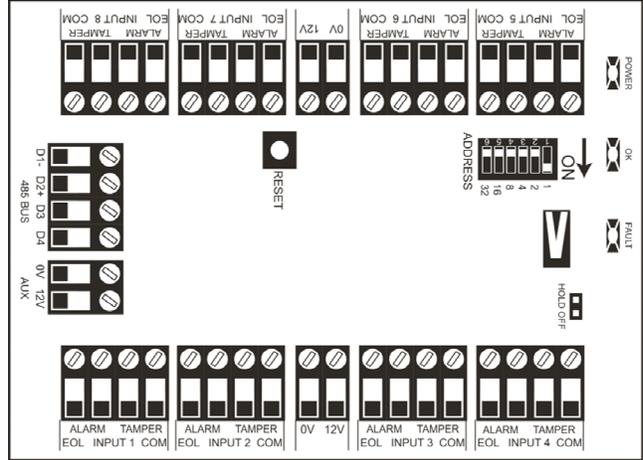
EURO-ZEM8

The EURO-ZEM8 is an input expander that supports 8 inputs.

It also supports NC (normally closed), DEOL input and 3 Resistor (Grade 3) configurations.

The EURO 46 will support up to 4 x Zone Expander Modules. Please see page: 4.

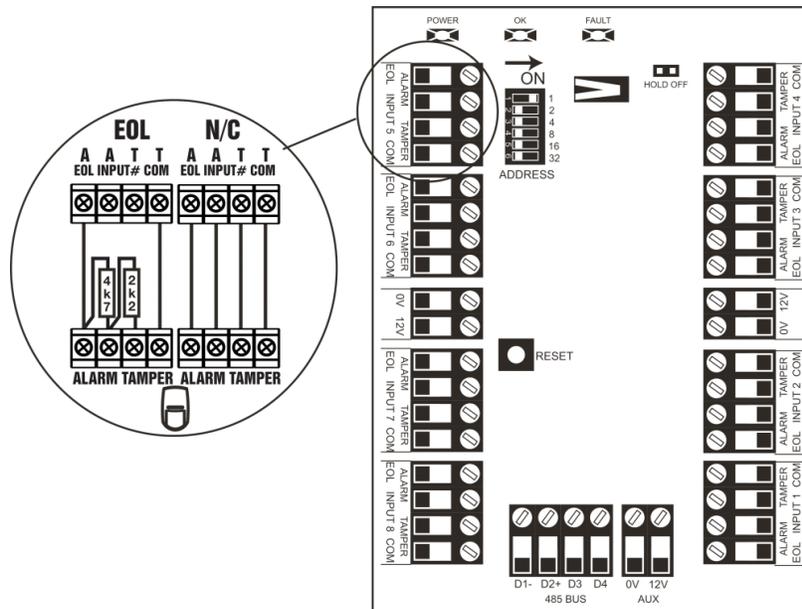
NOTE: To wire double pole, program the resistor range to 4K7/2K2 in 'CHOOSE MODE' of the Engineer menu.



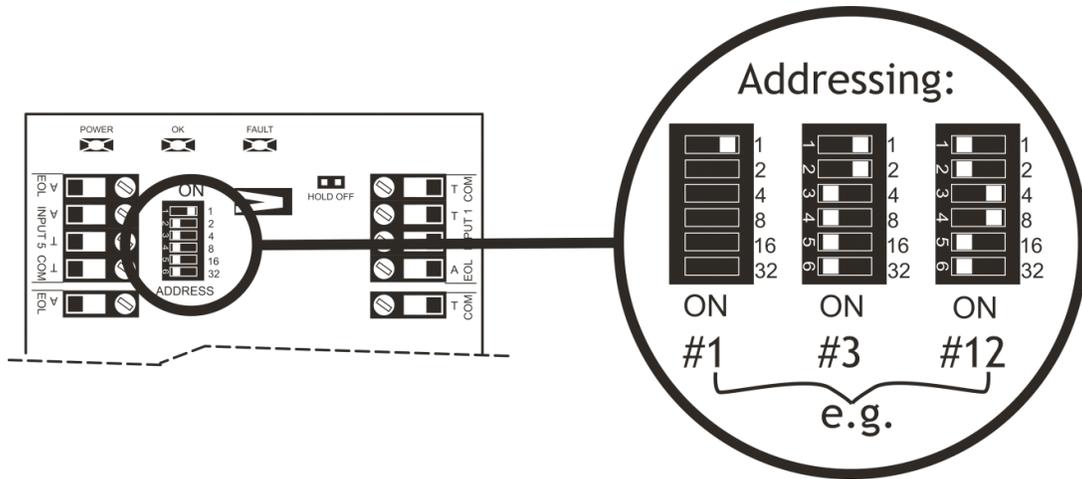
7.4.2 EURO-ZEM8 Technical Specification

EURO-ZEM8 (Inertia Input Expander)			
Input Voltage	9-15V		
Current Consumption	45mA		
Inputs	NC, DEOL, 3 Resistor (Grade 3)		
Normal	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Burglary Alarm	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Fault	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Masking (6k8)	6k to 8k1	8k to 11k3	10k3 to 14k9
Tamper	8k2 to 17k	11k6 to 22k	15k to 22k
Dimensions (plastic box)	173 x 125 x 32mm		
Dimensions (PCB)	128 x 87 x 16mm		
Colour and Casing	White 3mm ABS with clear polycarbonate window		
Security Grading	3		
Indications	LEDs: Power, OK and Fault		
Temperature	Storage: -20°C to +60°C Certified: -10°C to +40°C Nominal: -10°C to +50°C		
Front and rear tamper protected			

7.4.3 The EURO-ZEM8 Input Configuration



7.4.4 Addressing The EURO-ZEM8 (From The Expander)

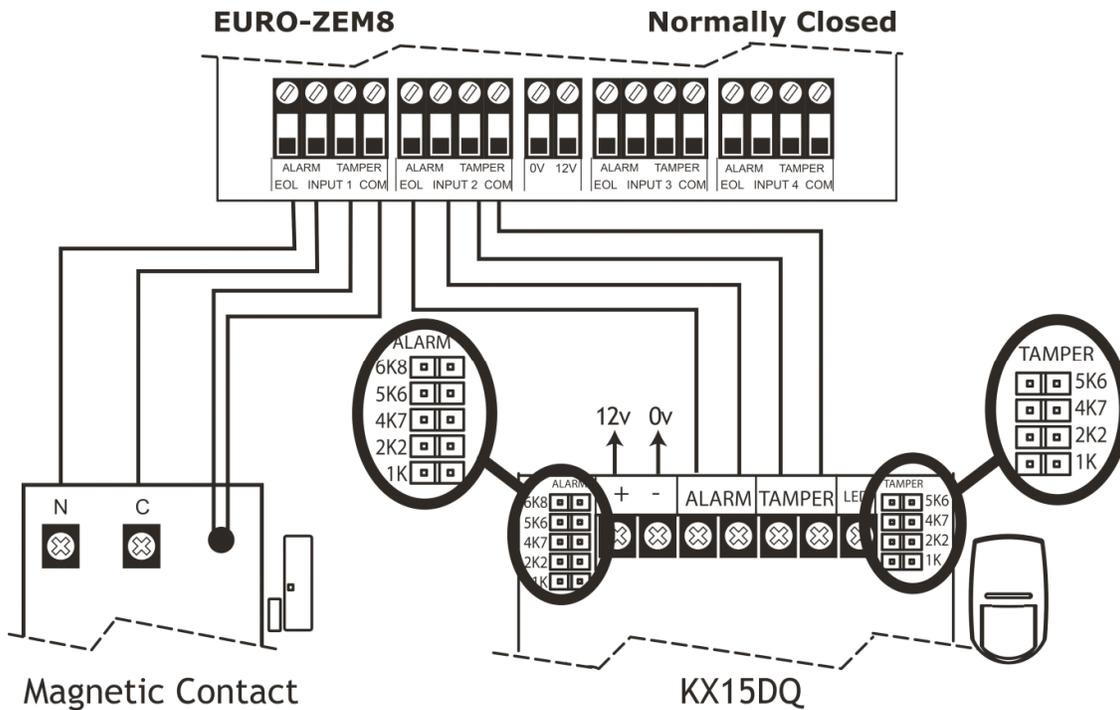


NOTE: The addressing is done by adding the relevant numbers on the dip switches:
 For example: Dip switch 1 and 2 are only ON = Address 3.
 Dip switch 1 and 16 are only ON = Address 17 etc.

7.4.5 Adding the EURO-ZEM8 (From the Engineer Menu)

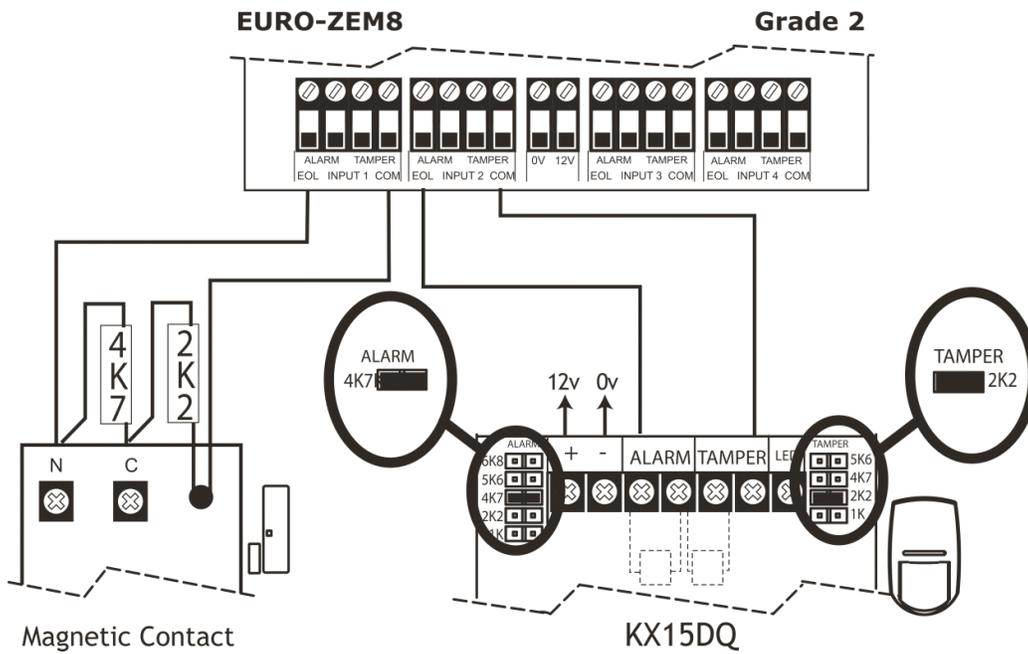
Enter the engineers menu and scroll to 'INSTALL ZEM?' and press YES. Please see the Programming Manual for more information.

7.4.6 Wiring Inputs on the EURO-ZEM8 (Normally Closed)



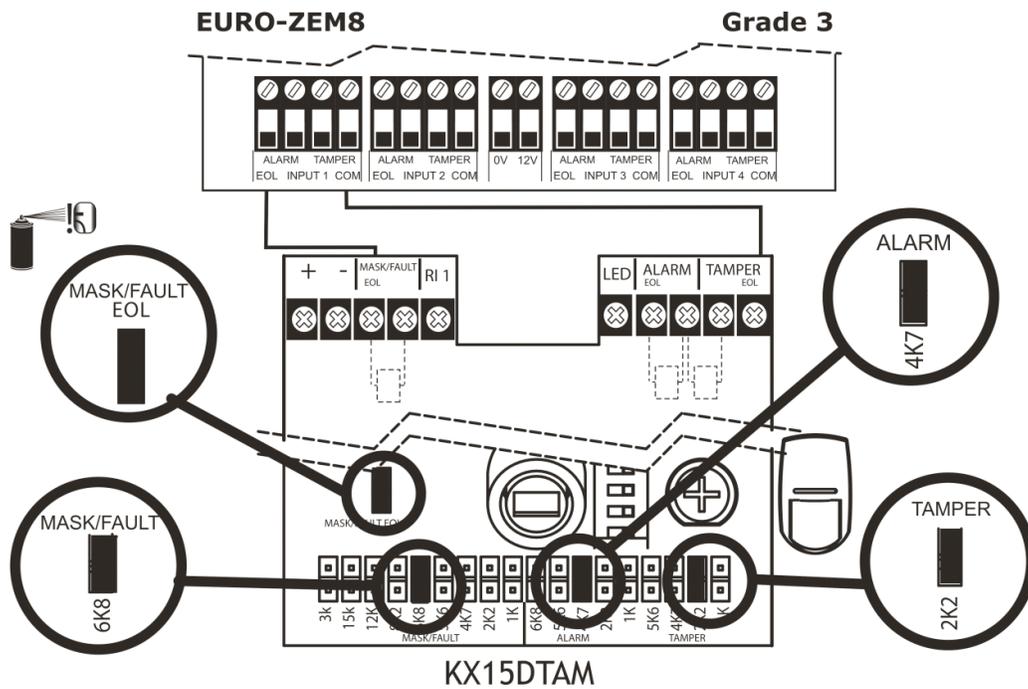
The above wiring example shows the normally closed connections for a KX15DQ PIR.

7.4.7 Wiring Inputs on the EURO-ZEM8 (DEOL: Grade 2)



The above wiring example shows the connections for a Grade 2 KX15DQ PIR.

7.4.8 Wiring Inputs on the EURO-ZEM8 (Mask/Fault: Grade 3)



The above wiring example shows the connections for a Grade 3 KX15DTAM PIR.

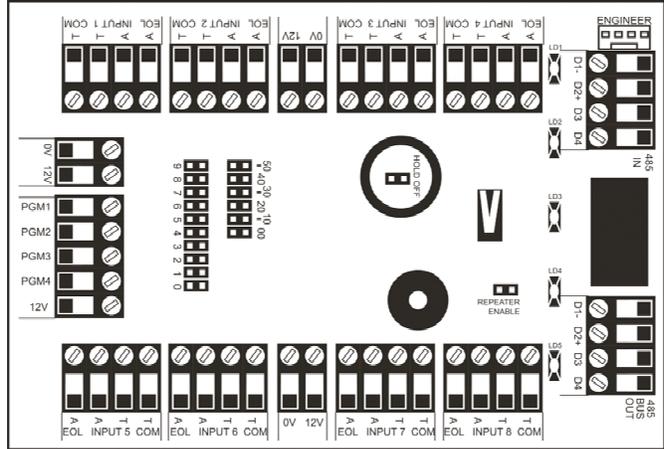
7.5 Connecting The Zone Expander Module with 4 PGMs (EURO-ZEM8+)

EURO-ZEM8+

The EURO-ZEM8+ is an input expander that supports 8 inputs and 4 PGMs.

It also supports NC (normally closed), DEOL input and Mask/Fault (Grade 3) configurations.

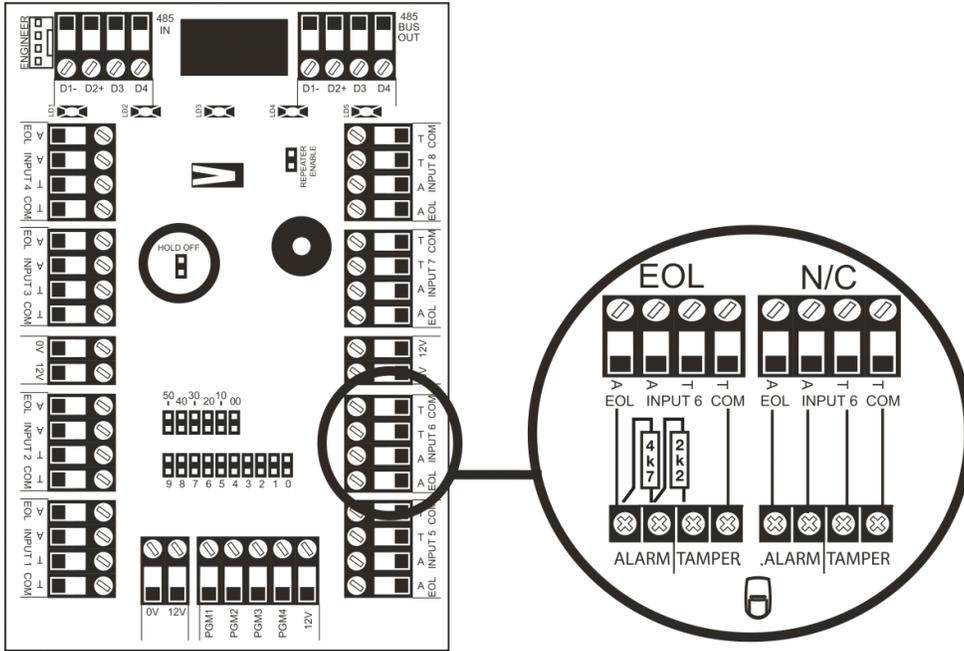
The EURO 46 will support up to 4 x Zone Expander Module. Please see page: 4.



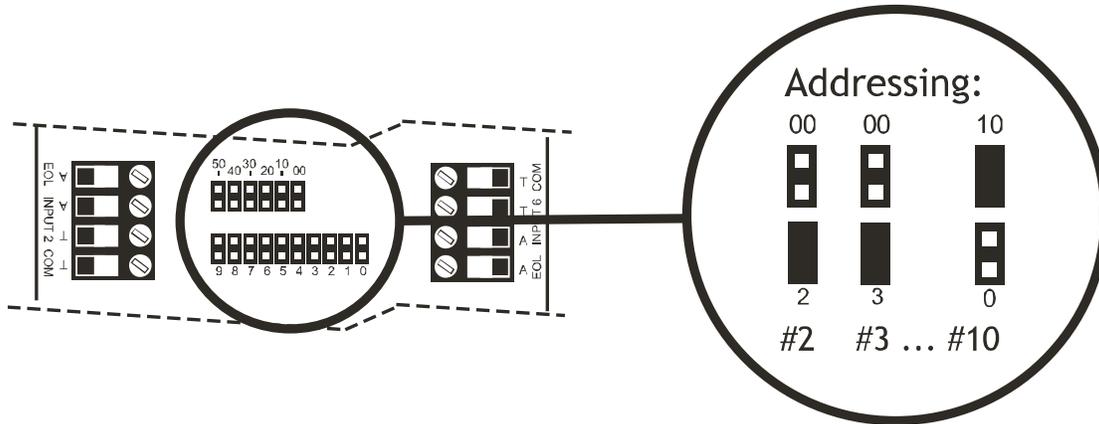
7.5.1 EURO-ZEM8+ Technical Specification

EURO-RIX8+ (Input Expander)			
Input Voltage	9-15V		
Current Consumption	30mA		
Inputs	Programmable NC, DEOL, Mask/Fault (Grade 3)		
Input EOL Resistor Values	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Normal	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Burglary Alarm	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Fault	6k to 8k1	8k to 11k3	10k3 to 14k9
Masking (6k8)	8k2 to 17k	11k6 to 22k	15k to 22k
PGM1 - PGM4	100mA each		
PGM1 - PGM4	Normal state: 12V		
PGM1 - PGM4	Active state: 0V		
Dimensions (plastic box)	173 x 125 x 32mm		
Dimensions (PCB)	128 x 87 x 16mm		
Colour and Casing	White 3mm ABS with clear polycarbonate window		
Indication	LEDs (Power, OK and Fault)		
Temperature	Storage: -20°C to +60°C Certified: -10°C to +40°C Nominal: -10°C to +50°C		
Front and rear tamper protected			

7.5.2 EURO-ZEM8+ Input Configuration



7.5.3 Addressing the EURO-ZEM8+

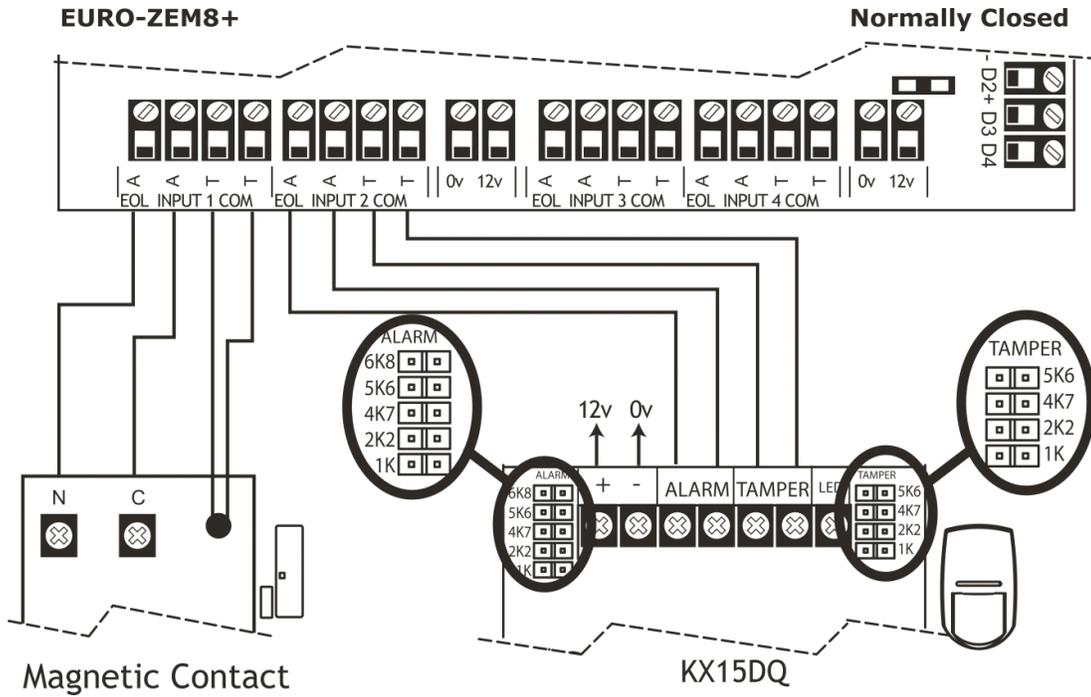


NOTE: The addressing is done by headers that represent the address. For example: If a header is placed on 00, and 9, the address is 9. If a header is placed on 20, and 3, the address is 23 etc.

7.5.4 Adding the EURO-ZEM8+ (From the Engineer Menu)

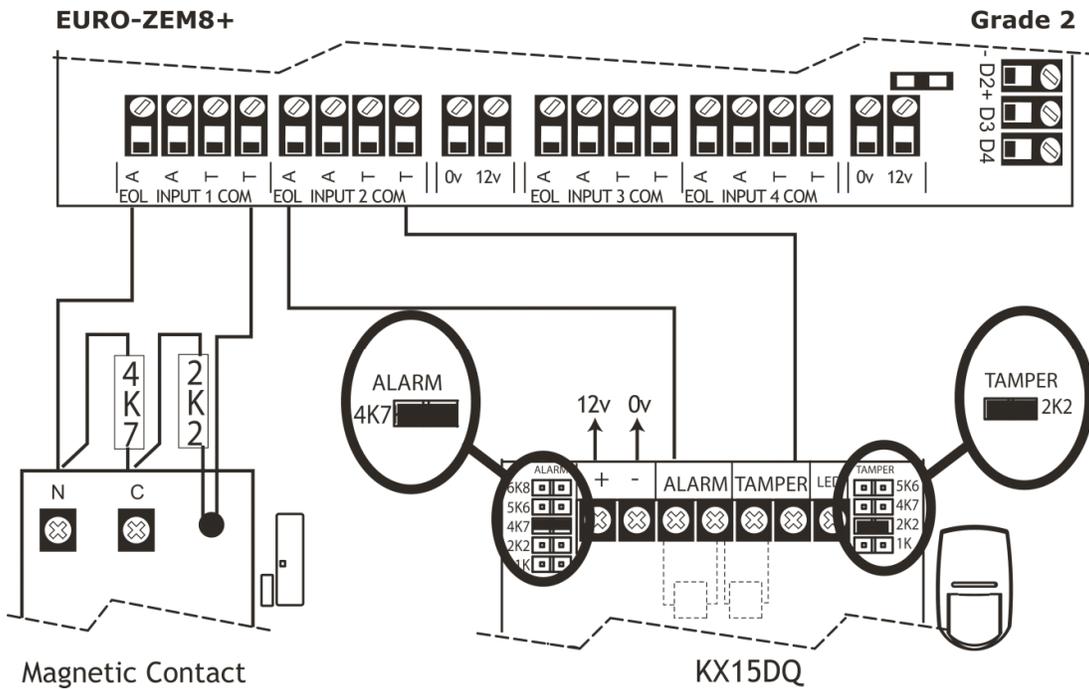
Enter the engineers menu and scroll to 'INSTALL ZEM' and press **YES**. Please see the Programming Manual for more information.

7.5.5 Wiring Inputs on the EURO-ZEM8+ (Normally Closed)



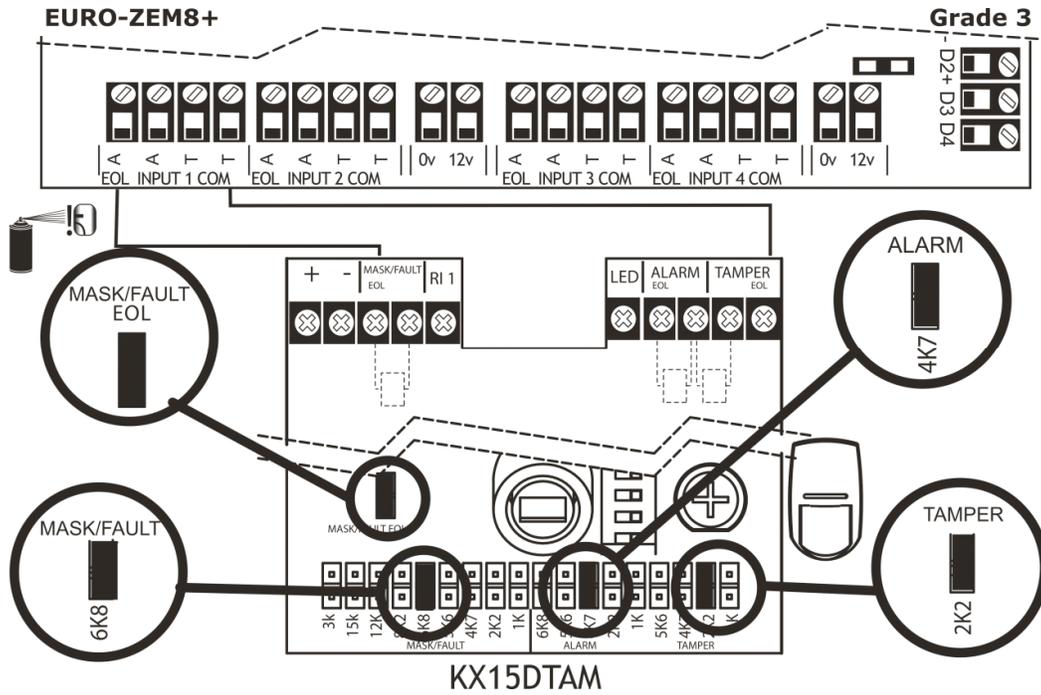
The above wiring example shows the normally closed connection for a KX15DQ PIR.

7.5.6 Wiring Inputs on the EURO-ZEM8+ (DEOL - Grade 2)



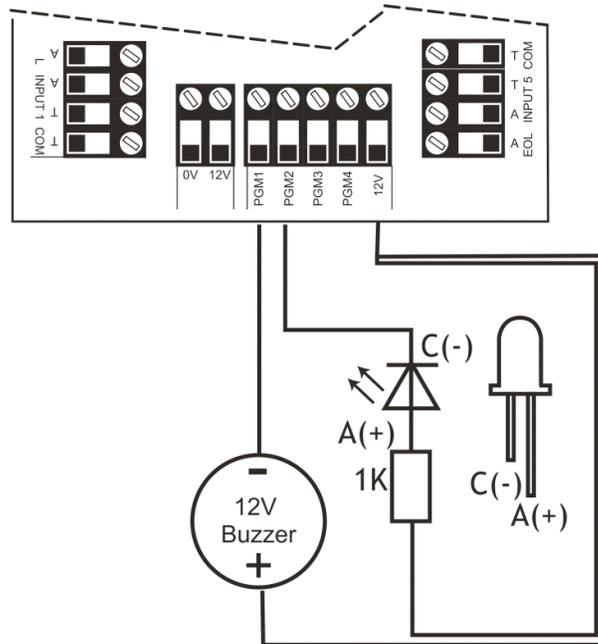
The above wiring example shows the connections for a Grade 2 KX15DQ PIR.

7.5.7 Wiring Inputs on the EURO-ZEM8+ (Mask/Fault - Grade 3)



The above wiring example shows the connections for a Grade 3 KX15DTAM PIR.

7.5.8 Output Wiring on the EURO-ZEM8+



Normal State: 12V
Active State: 0V
Max Current: 100mA

Normal State: 12V
Active State: 0V
Current: 100mA

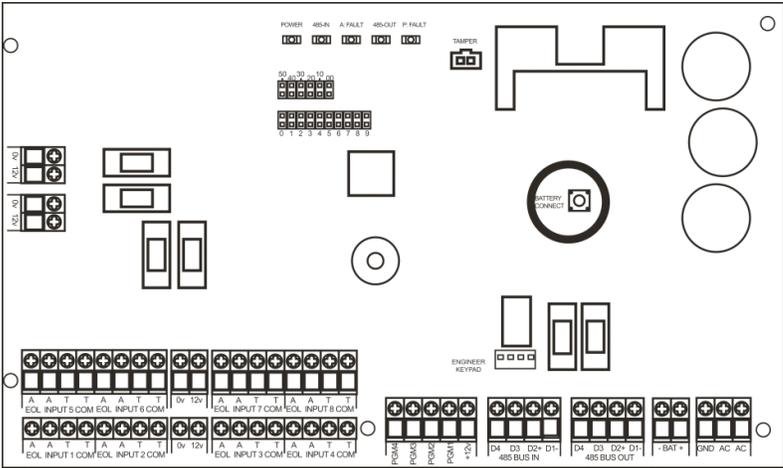
7.6 Connecting The Zone Expander Module with PSU (EURO-ZEM8+PSU)

EURO-ZEM8+PSU

The EURO-ZEM8+ is an input expander that supports 8 inputs and 4 PGMs and has a built in 2.5 power supply.

It also supports NC (normally closed), DEOL input and Mask/Fault (Grade 3) configurations.

The EURO 46 will support up to 4 x Remote Inputs Expanders. Please see page: 4.

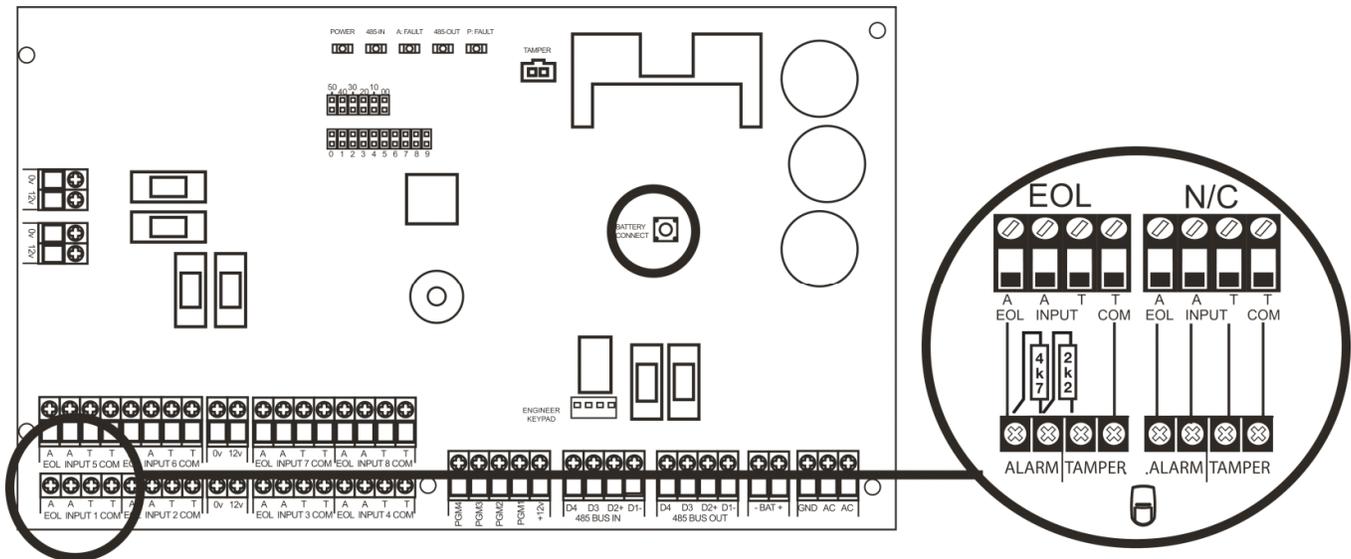


NOTE: The D2+ terminal must not be connected.

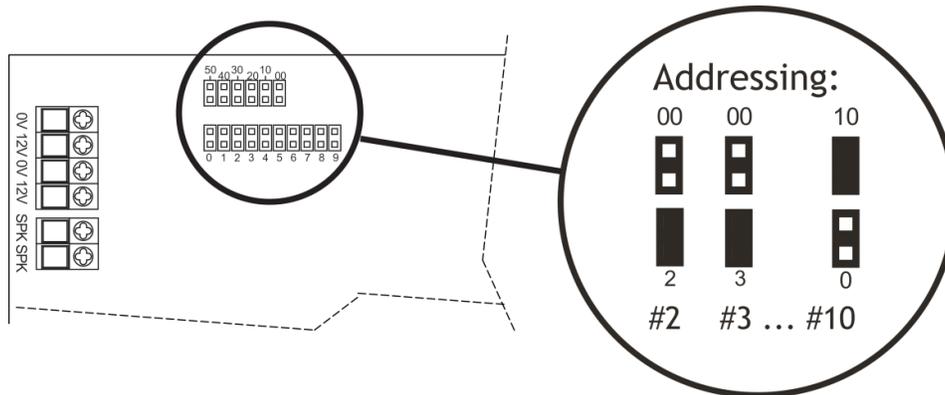
7.6.1 EURO-ZEM8+PSU Technical Specification

EURO-ZEM8+PSU (Input Expander with Power Supply)			
Input Voltage	9-15V		
Current Consumption	65mA		
Inputs	Programmable NC, DEOL, Mask/Fault (Grade 3)		
Input EOL Resistor Values	1k / 1k DEOL Range	4k7 / 2k2 DEOL Range	4k7 / 4k7 DEOL Range
Normal	0k5 to 1k4	1k4 to 2k9	3k7 to 8k3
Burglary Alarm	1k5 to 5k9	4k2 to 7k8	8k4 to 10k2
Fault	6k to 8k1	8k to 11k3	10k3 to 14k9
Masking (6k8)	8k2 to 17k	11k6 to 22k	15k to 22k
PGM1 - PGM4	100mA each		
PGM1 - PGM4	Normal state: 12V		
PGM1 - PGM4	Active state: 0V		
Power Supply Rating	2.0A continued and 2.5A in peak when charging battery		
Transformer Rating	44VA		
Dimensions (metal box)	390 x 305 x 100mm		
Dimensions (PCB)	215 x 125 x 65mm		
Colour and Casing	White metal casing		
Indication	LEDs (Power, RS485 In, A-Fault, RS485 Out, P-Fault)		
Temperature	Storage: -20°C to +60°C Certified: -10°C to +40°C Nominal: -10°C to +50°C		
EN50131 Certified Grade 3 Front and rear tamper protected with one tamper switch PD6662:2010 Installations - Back up battery time = 12hrs providing that a mains fail signal is reported to the ARC. A 17Ah battery will support a maximum load of 1350mA for a period of 12 hours. EN50131-1:2006+A1:2009 Installations - Back up battery time = 30hrs providing that a mains fail signal is reported to the ARC. A 17Ah battery will support a maximum load of 497mA for a period of 30 hours. Installations which are not supported by an ARC mains fail reported signal = 60 hours. A 17Ah battery will support a maximum load of 248mA for a period of 60 hours.			

7.6.2 EURO-ZEM8+PSU Input Configuration



7.6.3 Addressing the EURO-ZEM8+PSU

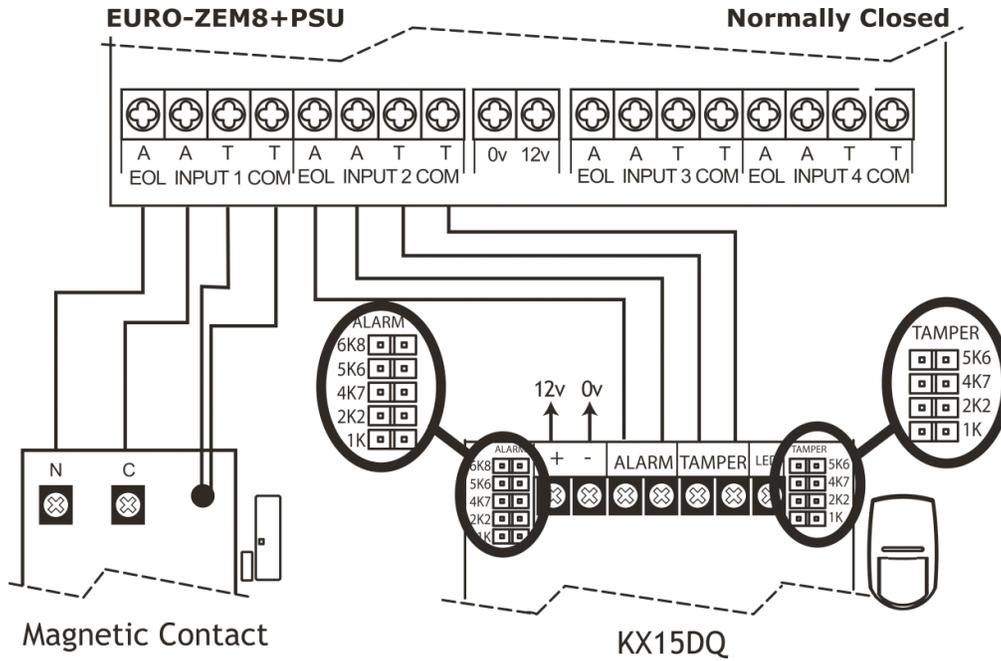


NOTE: The addressing is done by headers that represent the address. For example: If a header is placed on 00, and 9, the address is 9. If a header is placed on 20, and 3, the address is 23 etc.

7.6.4 Adding the EURO-ZEM8+PSU (From the Engineer Menu)

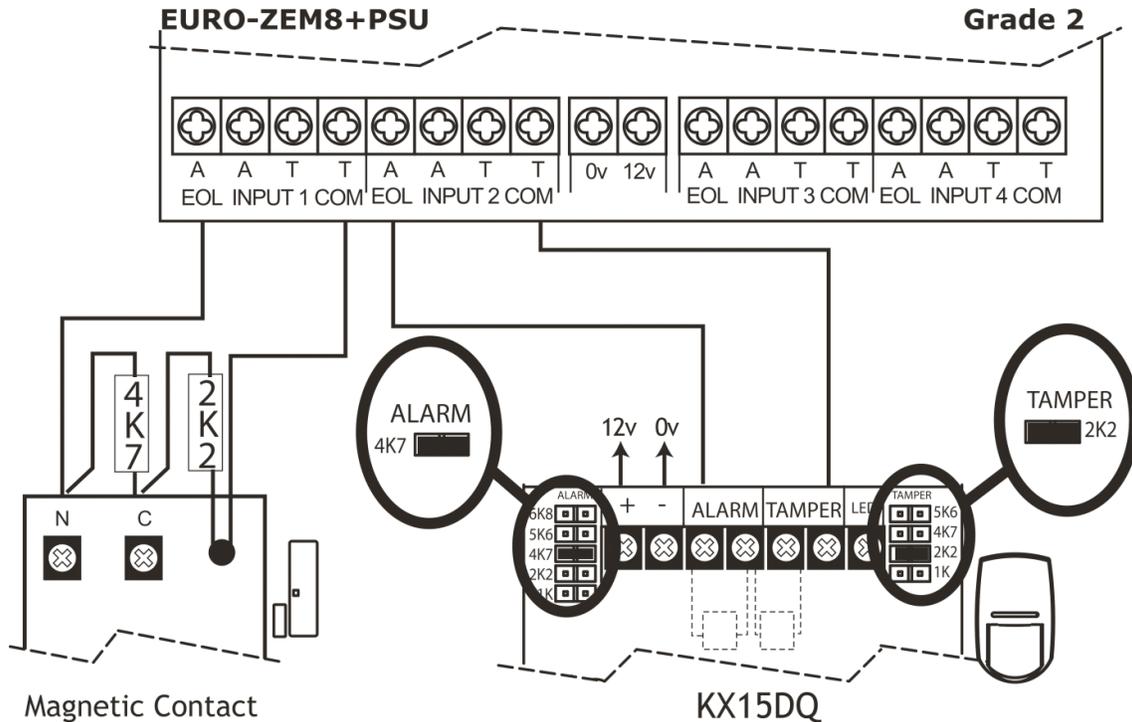
Enter the engineers menu and scroll to 'INSTALL ZEM' and press **YES**. Please see the Programming Manual for more information.

7.6.5 Wiring Inputs on the EURO-ZEM8+PSU (Normally Closed)



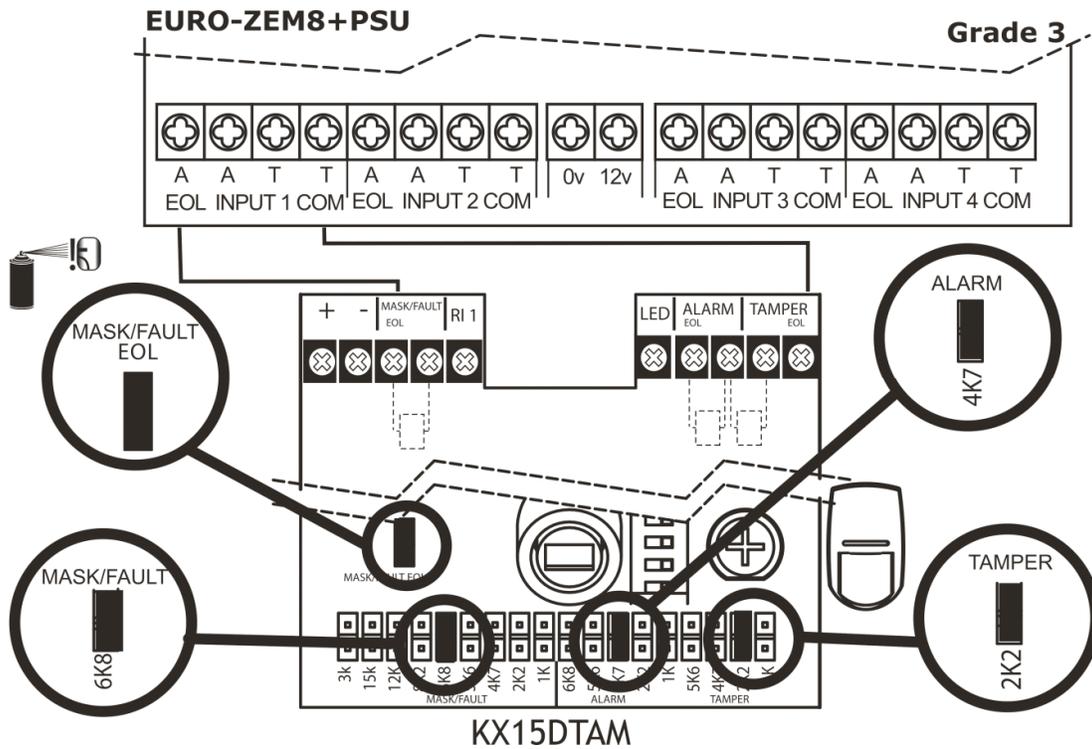
The above wiring example shows the normally closed connections for a KX15DQ PIR.

7.6.6 Wiring Inputs on the EURO-ZEM8+PSU (DEOL: Grade 2)



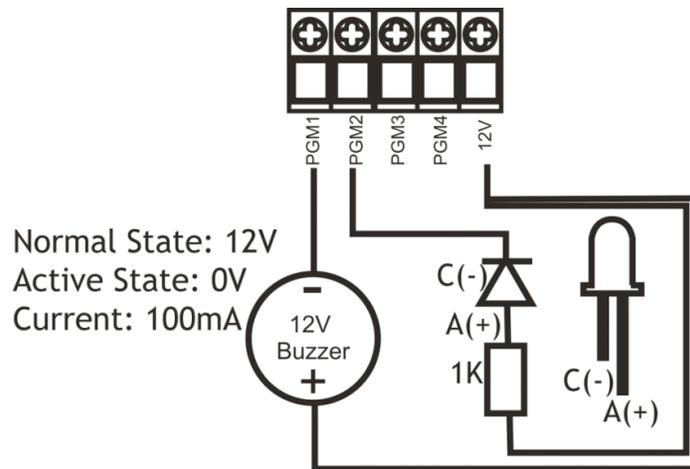
The above wiring example shows the connections for a Grade 2 KX15DQ PIR.

7.6.7 Wiring Inputs on the EURO-ZEM8+PSU (Mask/Fault: Grade 3)



The above wiring example shows the connections for a Grade 3 KX15DTAM PIR.

7.6.8 Output Wiring on the EURO-ZEM8+PSU



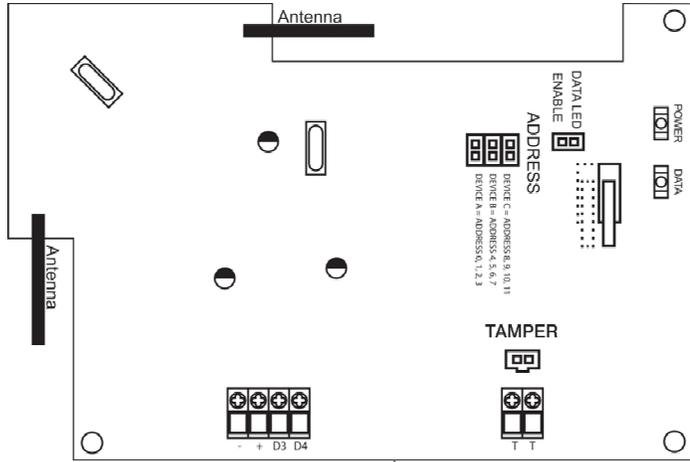
7.7 Connecting The Enforcer Wireless Zone Expander Module (EURO-ZEM32-WE)

EURO-ZEM32-WE

The EURO-ZEM32-WE is a wireless input expander that supports Two Way wireless Enforcer technology. Each expander will allow 32 wireless inputs. The first expander on the bus will allow 32 wireless keyfobs and 2 wireless bells.

The EURO 46 will support 1 x EURO-ZEM32-WE. (A maximum of 32 wireless inputs).

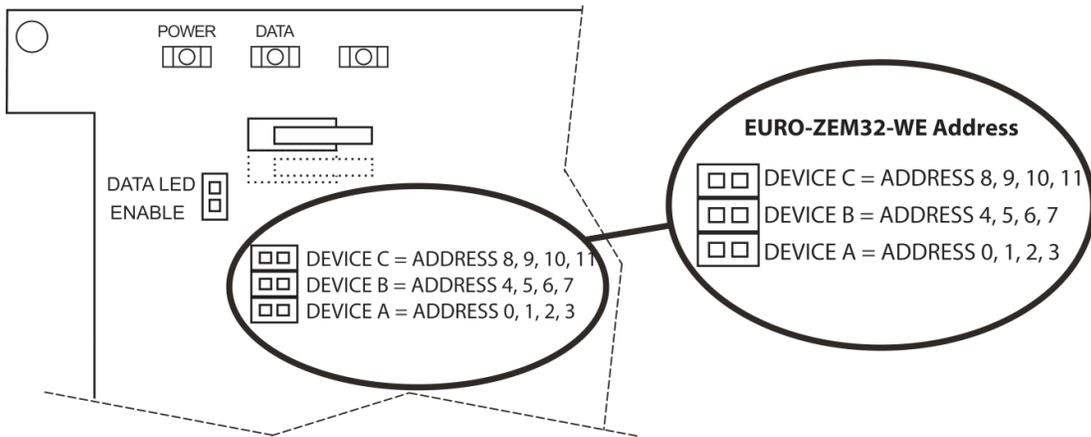
Please see page: 4.



7.7.1 EURO-RIX32-WE Technical Specification

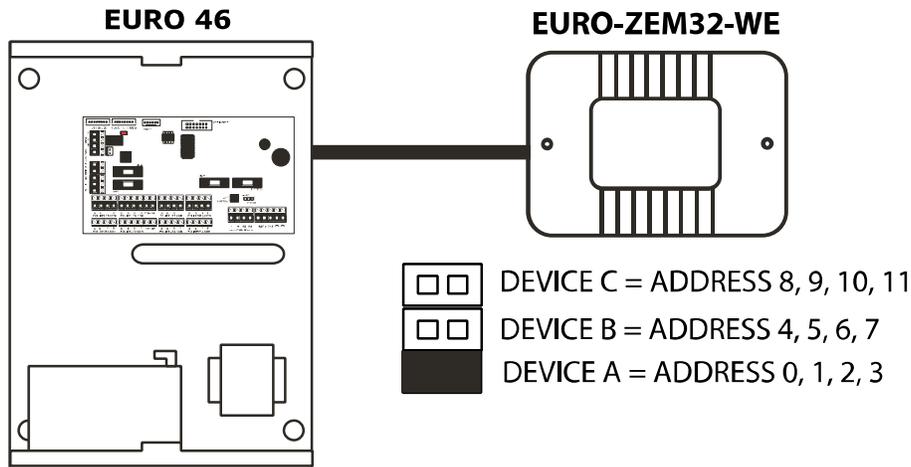
EURO-RIX32-WE (Two Way Wireless Input Expander)	
Input Voltage	9-14V
Current Consumption	60mA quiescent 115mA during transmission
Radio Frequency	868MHz FM Transceiver Narrow Band. Range: 300m open space
Dimensions (metal box)	173 x 125 x 32mm
Colour and Casing	White plastic casing
Indication	LEDs (Power and Data)
Temperature	Operational: -10°C to +50°C Certified: -10°C to +40°C Storage: -40°C to +80°C
Humidity	85% @ 25°C
Weight	0.24kg

7.7.2 Addressing the EURO-ZEM32-WE (From the Expander)



The EURO 46 will support both wired and wireless expanders on the same bus. Wireless sounders and Keyfobs must be learned to Address 0.

NOTE: Please make sure that you address the EURO-ZEM32-WE while the tamper switch is open. The address will then be assigned when the tamper is closed.

Addressing Example: Having 32 wireless inputs on the EURO 46**EURO-ZEM32-WE: DEVICE A**

This expander will learn all 32 wireless keyfobs and 2 wireless bells.

- **Address 0** = 8 wireless inputs (Inputs 9-16)
- **Address 1** = 8 wireless inputs (Inputs 17-24)
- **Address 2** = 8 wireless inputs (Inputs 25-32)
- **Address 3** = 8 wireless inputs (Inputs 33-40)

Wired expanders may also be used in conjunction with wireless expanders. For example, if only 48 wireless inputs are needed, wired input expanders can be addressed from Address 6.

7.7.3 Adding the EURO-ZEM32-WE (From the Engineer Menu)

Enter the engineers menu and scroll to 'INSTALL ZEM' and press **YES**. Please see the programming manual for more information.

7.7.4 Learning Wireless Devices

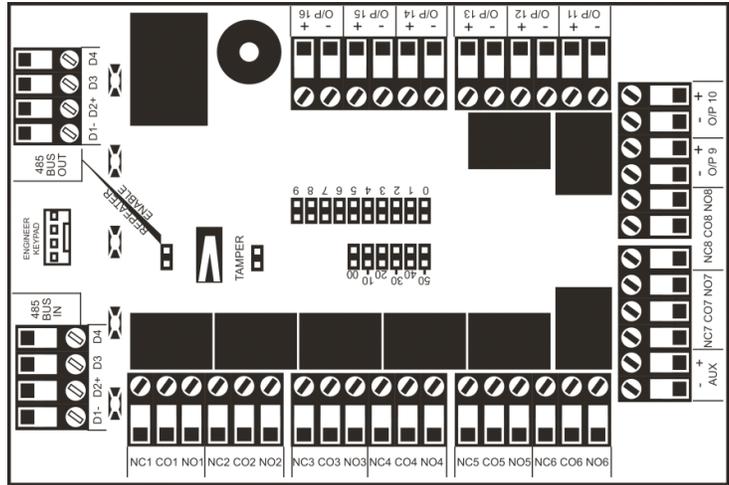
All wireless devices are learnt in the Engineer function 'WIRELESS DEVICE CONTROL'. Please see the programming manual (for inputs and bells) and user manual (for keyfobs) for more information.

7.8 Connecting The Output Expander Module (EURO-OEM8R8T)

EURO-OEM8R8T

The EURO-OEM8R8T is an output expander that supports 8 way relays and 8 transistor outputs.

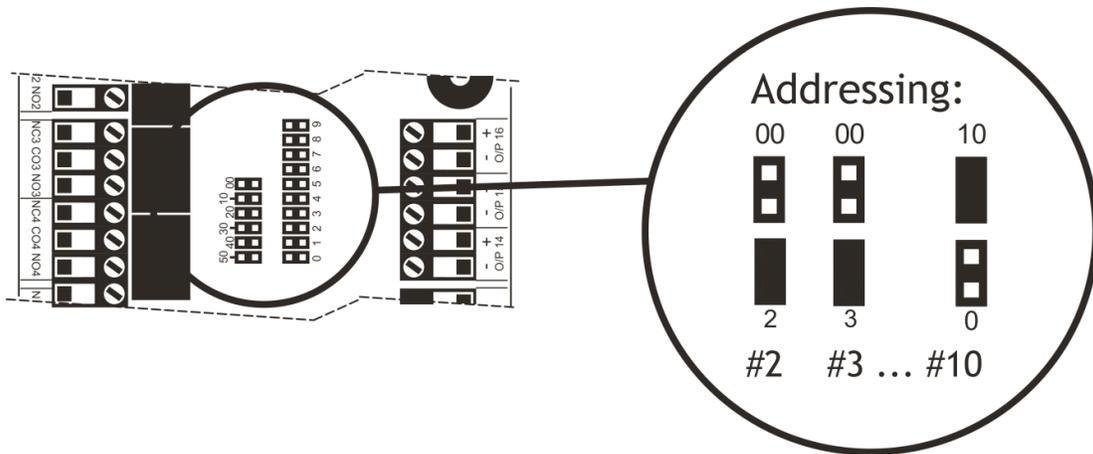
The EURO 46 will support up to 2 x Output Expander Modules. See page: 4.



7.8.1 EURO-OEM8R8T Technical Specification

EURO-OEM8R8T (Output expander with 16 PGMs)	
Supply Voltage	9-15V DC
Current Consumption	25mA, Max 300mA when all outputs are active
PGM1 to PGM16	Programmable
PGM1 to PGM8 Type	Relay, 3A, max 30V
PGM1 to PGM8 Normal State	Changeover NC & NO
PGM1 to PGM4 Active State	Changeover NC & NO
PGM9 to PGM16 Type	Open Collector
PGM9 to PGM16 Normal State	Floating
PGM9 to PGM16 Active State	0V
Dimensions Plastic Box	173 x 125 x 32mm
Dimensions PCB	135 x 90 x 15mm
EN50131 Certified	Grade 3

7.8.2 Addressing The EURO-OEM8R8T (From the Expander)

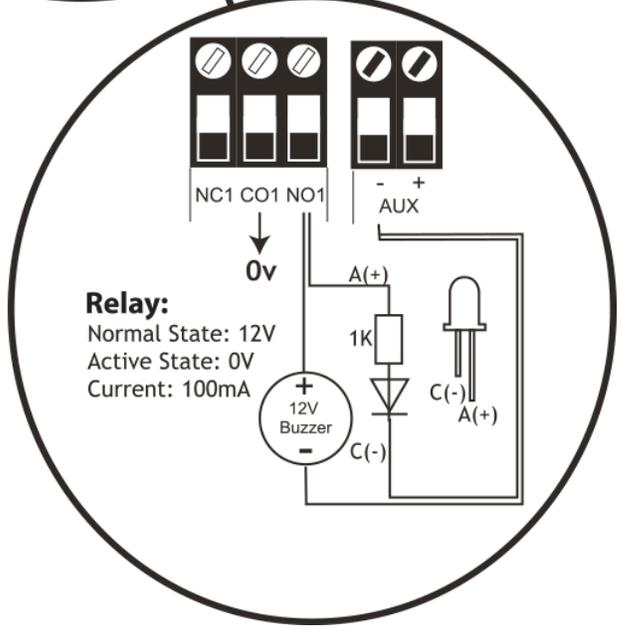
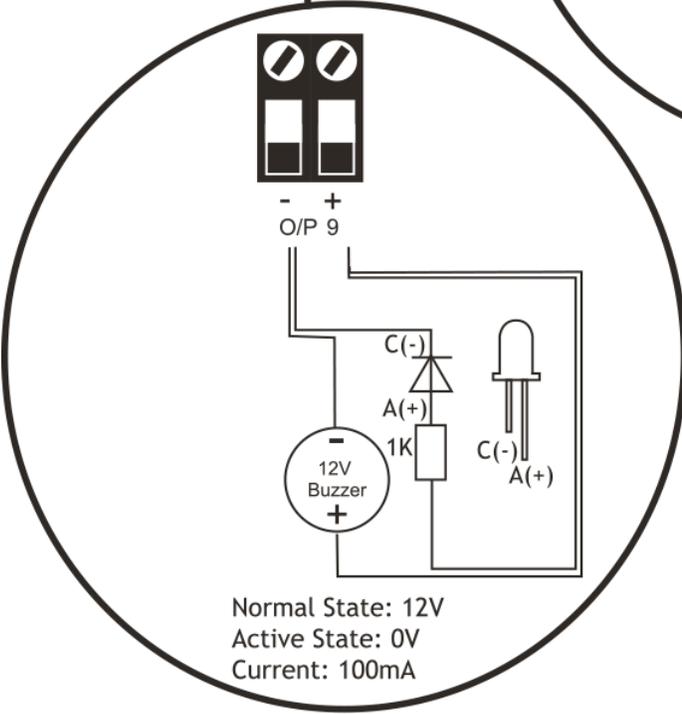
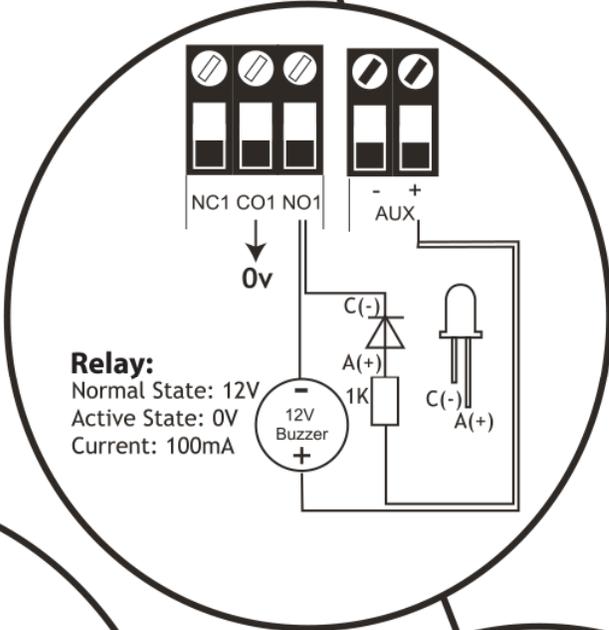
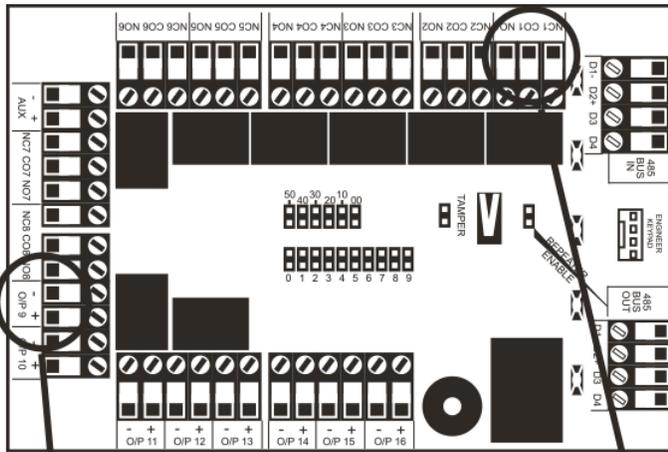


NOTE: The addressing is done by headers that represent the address. For example: If a header is placed on 00, and 9, the address is 9. If a header is placed on 20, and 3, the address is 23 etc.

7.8.3 Adding The EURO-OEM8R8T (From the Engineer Menu)

Enter the engineers menu and scroll to 'CHANGE OUTPUTS' and then 'Output Module Outputs' and press **[YES]**. Please see the Programming Manual for more information.

7.8.4 EURO-OEM8R8T Output Connections



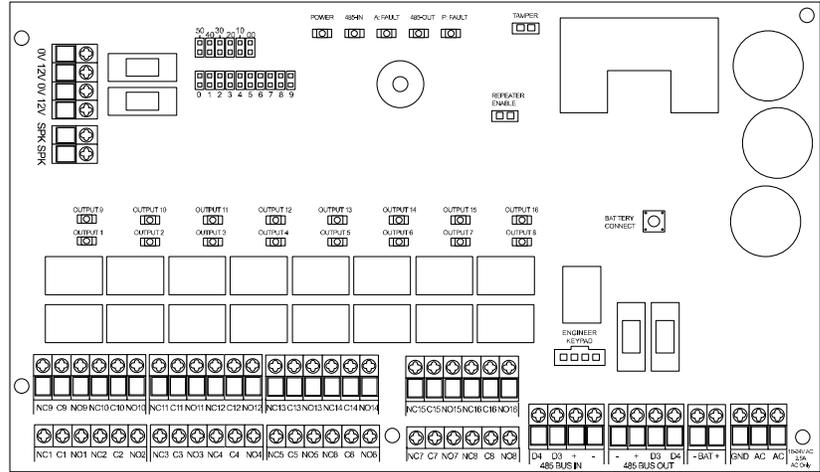
7.9 Connecting The Output Expander Module with PSU (EURO-OEM16R+PSU)

EURO-OEM16R+PSU

The EURO-OEM16R+PSU is an output expander that supports 16 relays and has a built in 2.5A power supply.

The EURO 46 will support up to 2 x Output Expander Modules. See page: 4.

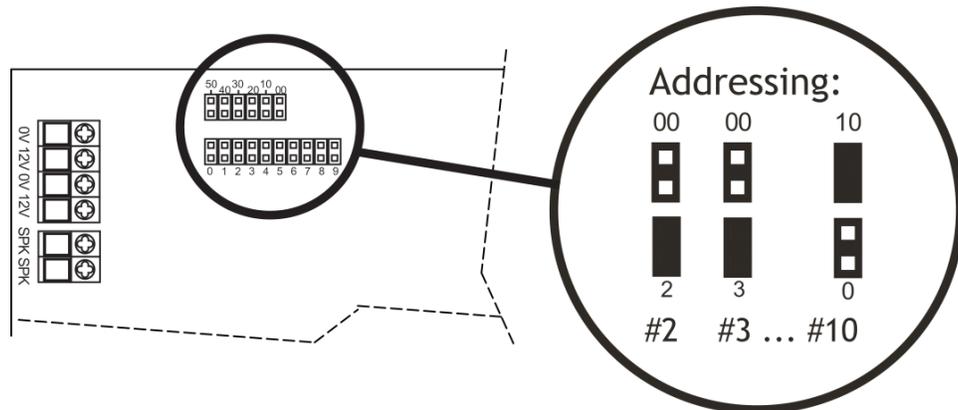
NOTE: The D2+ terminal must not be connected.



7.9.1 EURO-OEM16R+PSU Technical Specification

EURO-OEM16R+PSU (Output expander with 16 PGMs and Power Supply)	
Supply Voltage	9-15V DC
Current Consumption	25mA, Max 340mA when all outputs are active
PGM1 to PGM16	Programmable
PGM1 to PGM16 Type	Relay, 3A, max 30V
PGM1 to PGM16 Normal State	Changeover NC & NO
PGM1 to PGM16 Active State	Changeover NC & NO
Power Supply Rating	2.0A Continuous and 2.5A in peak when charging battery
Transformer Rating	44VA
Dimensions Metal Box	390 x 205 x 100mm
Dimensions PCB	215 x 125 x 65mm
Front and rear tamper protected with one tamper switch	
A 17Ah battery will support a maximum load of 1350mA for a period of 12 hours. EN50131-1:2006+A1:2009 Installations - Back up battery time = 30hrs providing that a mains fail signal is reported to the ARC.	
A 17Ah battery, will support a maximum load of 497mA for a period of 30 hours. Installations which are not supported by an ARC mains fail reported signal = 60 hours.	
A 17Ah battery, will support a maximum load of 248mA for a period of 60 hours.	
EN50131 Certified	Grade 3

7.9.2 Addressing The EURO-OEM16R+PSU (From the Expander)

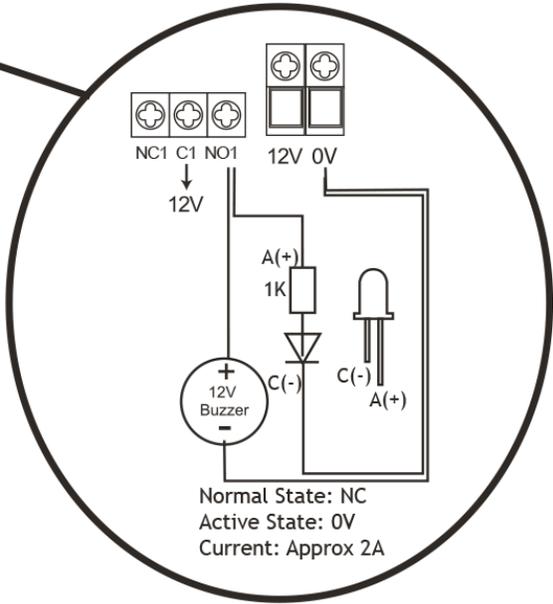
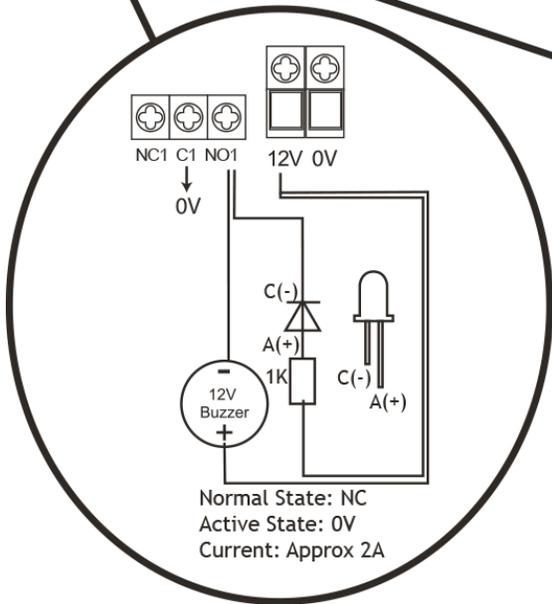
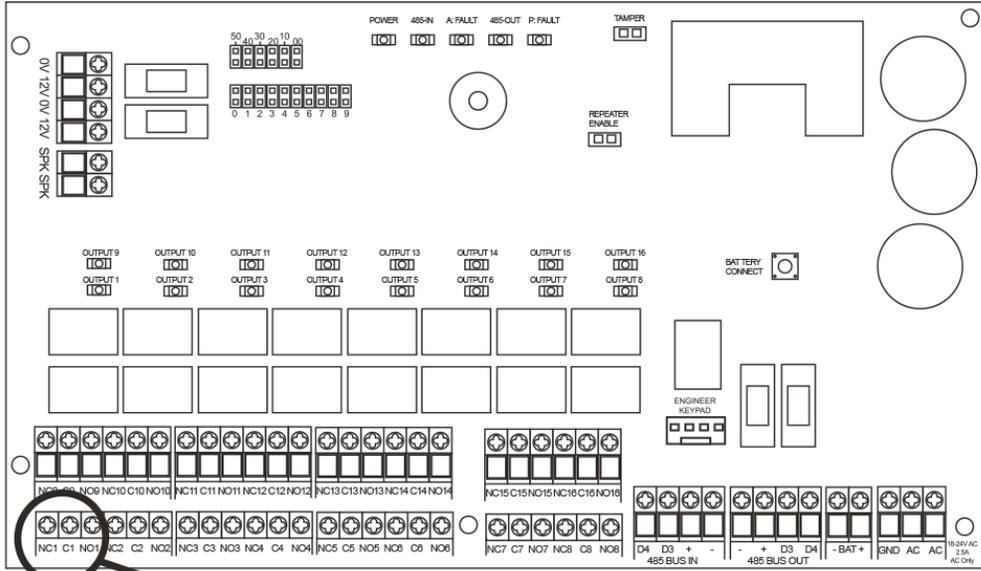


NOTE: The addressing is done by headers that represent the address.
For example: If a header is placed on 00, and 9, the address is 9.
If a header is placed on 23, and 0, the address is 23 etc.

7.9.3 Adding The EURO-OEM16R+PSU (From the Engineer Menu)

Enter the engineers menu and scroll to 'CHANGE OUTPUTS' and then 'Output Module Outputs' and press [YES]. Please see the Programming Manual for more information.

7.9.4 EURO-OEM16R+PSU PGM Connections (Negative and Positive Applied Wiring)



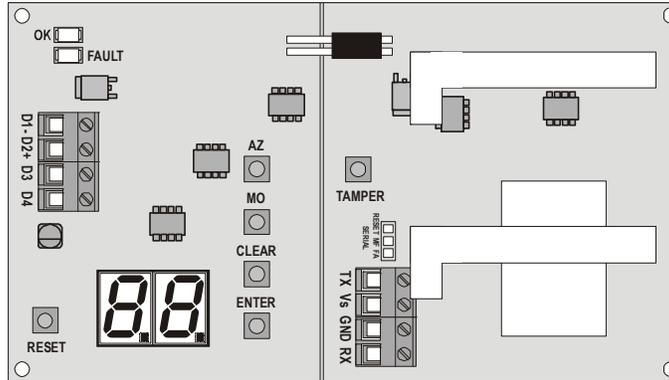
8. The Inovonics Radio Expander

This radio expander is an 868 inovonics receiver and programming PCB. It will connect to the EURO 46 via the D1, D2, D3, and D4 terminals. NOTE: This expander will not work with the Enforcer wireless technology.

8.1 The Inovonics Radio Expander

The display is 2 x 7 segments and there are 4 control buttons:

- 'AZ' = Assign zones/repeaters
- 'MO' = EOL mode (iD mode not applicable on the EURO 46)
- 'CLEAR' = Clear Information
- 'ENTER' = Accept Information



A total of 7 detectors can be programmed using the End of Line mode on a radio expander. The 'OK' and 'FAULT' LEDs relate to the RS485 connection to the EURO system.

NOTE: The last input on the expander should be programmed as 'Fault' with the name 'RF Low Battery' to indicate a detector low battery problem. If an RF Low Battery is reported then the radio expander will show on the display the number of the detector with the low battery: e.g. Lb...21. Supervision failure will be reported as 'tamper' on the relevant input.

8.2 The Inovonics Radio PIR

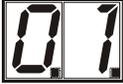
Once the Inovonics Radio PIR has seen activation, it will then be inactive for four minutes. If the Radio PIR hasn't seen any activation within the four minutes, it will then be active again. This is to save the battery life of the detector.

8.3 Addressing the Radio Expander

Once a radio expander is installed on the system it must be enabled at the radio expander and the EURO system. To perform this at the system you will need to go to 'Install ZEM', see the programming manual. To enable this at the radio expander, follow the instructions below:

<ul style="list-style-type: none"> ➤ Hold down the 'ENTER' button until the mode and address are displayed. ➤ Press the 'MO' button on the detector to select End of Line mode. 	<p style="text-align: center;">ENTER</p> 	
<ul style="list-style-type: none"> ➤ Press the 'AZ' button to select the Wireless Input Expander address number. ➤ Press the 'ENTER' to confirm your selection. 	<p style="text-align: center;">AZ</p> 	

8.4 Assigning Radio Detectors

<p>➤ Press the 'AZ' and scroll to the input number you wish to assign a wireless detector to:</p>	<p>AZ </p>	
<p>➤ Press the 'RESET' button on the detector you wish to assign to that particular input. <i>Ensure that the jumper on the detector PCB is placed in the "EU" position. When the detector is assigned, the two dots on the display with flash.</i></p>		

8.5 Deleting Radio Detectors

<p>➤ Press the 'AZ' and scroll to the input number you wish to delete.</p>	<p>AZ </p>	
<p>➤ Press the 'CLEAR' button. The dots should have cleared, indicating the detector has been deleted.</p>	<p>CLEAR </p>	

8.6 Display the Signal Strength

The radio expander can monitor the signal of the detectors connected onto the system:

<p>➤ Press the 'AZ' and scroll to the input number you wish to check. The display will show the input number and two dots.</p>	<p>AZ </p>	
<p>➤ Activate the detector and the signal strength will be displayed (0-99). If it is below 14, use a REPEATER to boost the signal.</p>		

8.7 Assigning Repeaters to the Expander

The radio repeaters act as a 'Range Expander' and helps a system scale from smaller commercial sites to large campuses with several buildings. **NOTE:** Repeaters will use an input from the radio expander.

<p>➤ Press the 'AZ' and scroll to the input number you wish to assign a repeater. To assign the REPEATER to that input, power the repeater when the input number is displayed, and one dot will flash to confirm. To remove a repeater from that input, press 'CLEAR'</p>	<p>AZ </p>	
---	---	---

8.8 Supervision Time

The supervision time is the time of monitoring each detector on the radio expander.

<p>➤ Press the 'AZ' and scroll to the input number you wish to check. The display will show the input number and two dots.</p>	<p>AZ </p>	
<p>➤ With the input number displayed, press the 'MO' button to change the supervision time to (a number will be displayed, ignore this, just follow the dots). 30 minutes (no dots) / 30 hours (1 dot) / 30 days (2 dots)</p>	<p>MO </p>	

8.9 Problem Solving

One of the most frequent problems in not being able to assign the detectors to the Radio Expander is that the jumper on the detector PCB has not been put in place on the 'EU' pins. This makes sure the transmitter transmits at the correct 868MHz frequency which the input expander uses. Make sure that the 'serial' jumper on the radio expander is in the 'MF' position. If there is "33" displayed on the screen and can't be cleared, it is because the expander has been selected for "A0" not "E0". You will need to power down the expander and address it again.

8.10 Technical Specification

THE RADIO EXPANDER	
Radio:	Inovonics Wireless EchoStream using Pan-European 868MHz
Housing Material:	ABS
Closure:	Latching with optional screws for high security installs
Dimensions:	162.0 x 91.4 x 27.9 mm
Weight:	204 grammes
Power Requirements:	12-24V AC or DC
Battery Capacity:	1800mAH at 3.7V
Back-up Battery Life:	24 hours typical
Operating Environment:	0° - 60° C up to 90% relative humidity (non-condensing)
Batt. Charger Operating Environment:	0° - 40° C
Conformity:	Meets or exceeds EN50131-5-3 at grade 2

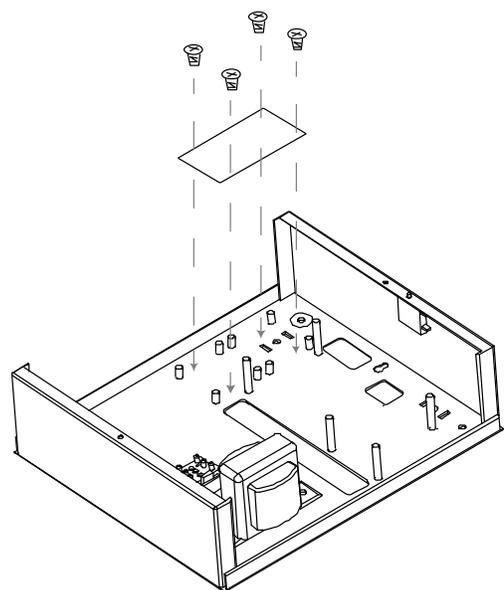
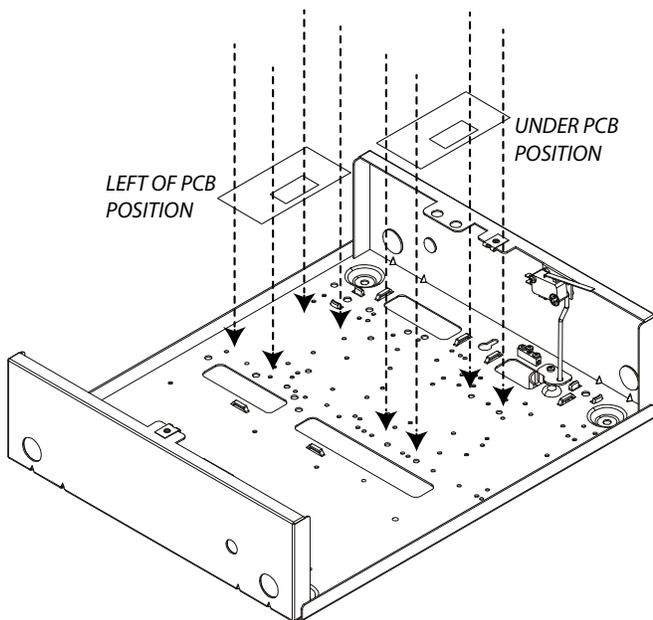
9. The GSM and PSTN Modems

NOTE: The connector labelled 'FOR FUTURE USE' on board the EURO 46 should not be used.

NOTE: The GSM modem (DIGI-GSM) is only compatible with software V9.11c and above.

Connecting the modem in the EURO 46L

Connecting the modem in the EURO 46S



On the EURO 46 Large, the Digi-1200 (PSTN) modem can be installed underneath the EURO 46 PCB or to the left of it – however the GSM must always be mounted in the 'left of PCB' position.

On the EURO 46 Small, the Digi-1200 (PSTN) or GSM modem should be installed to the left of the EURO 46 PCB.

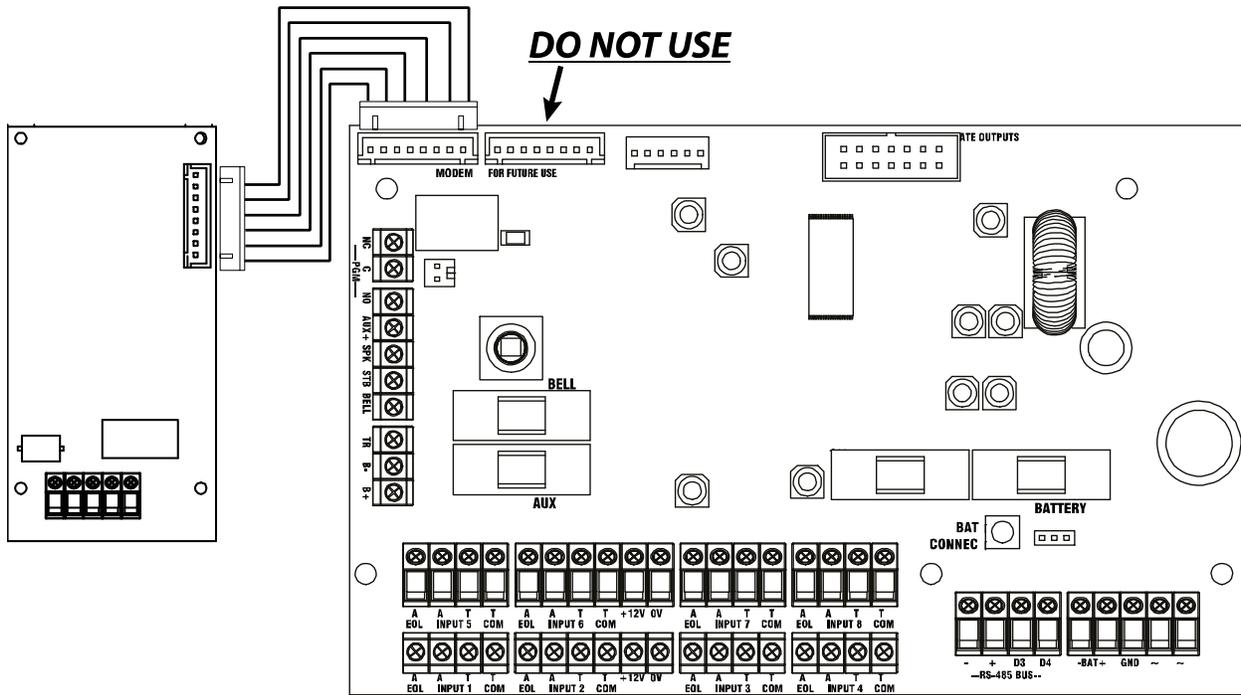
DIGI-1200 (PSTN) Modem:

The PSTN modem card (DIGI-1200) fits inside the EURO 46 and is used for the following operations:

Send Alarms to an ARC: It is possible to send alarm events to a monitoring station by using the following protocols: Fast Format, Contact ID, SIA Level 1 and SIA Level 3.

Programming the panel remotely via the telephone line: It is possible to program the EURO 46 remotely via the telephone line. In order to be able to use this feature it is necessary that the telephone line used is analogue conventional telephone line.

Receive Automatic Remote Service calls and alarms: It is possible to receive the RM service and alarm calls received by the UDL software installed on a PC and modem.



The DIGI-1200 (PSTN) modem enables communication via PSTN line using Fast Format or SMS as well as remote uploading/downloading.

A = Telephone line output for connection to analogue PSTN telephone line

B = Telephone line output for connection to analogue PSTN telephone line

A-1 = Telephone line output for connection to internal telecom equipment

B-1 = Telephone line output for connection to internal telecom equipment

NOTE 1: Before making these connections, all power must be disconnected from the system

NOTE 2: The ground terminal should ALWAYS be connected to earth in order to increase the effectiveness of the transient voltage protection on the unit.

NOTE 3: Do not connect any modem to the connector labelled 'FOR FUTURE USE'

IMPORTANT NOTE: POWER DOWN THE EURO 46 BEFORE DISCONNECTING THE MODEM.

The DIGI-GSM Modem:

The GSM modem card (**DIGI-GSM**) is used for the following operations:

Send Alarms to an ARC:

With the DIGI-GSM it is possible to send alarm events to a monitoring station by using Fast Format or Contact ID protocols.

NOTE: When using the DIGI-GSM it is not possible to use SIA alarm reporting.

Send SMS Alarms to the user: With DIGI-GSM it is possible to send SMS alarm messages to the user.

Programming the panel remotely via the GSM network:

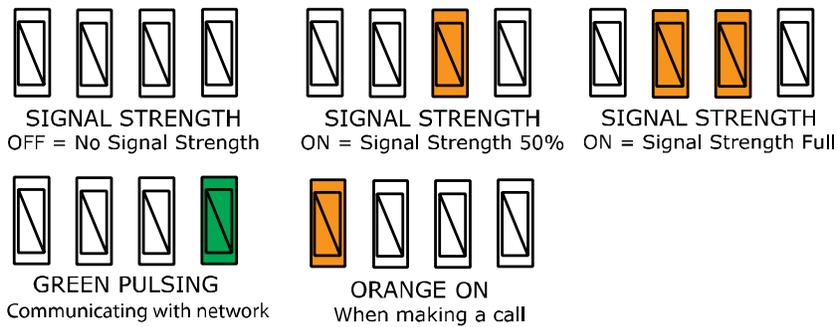
With the DIGI-GSM is also possible to program the EURO 46 remotely. In order to be able to use this feature it is necessary that the CSD data channel for the SIM card used in the modem is activated. We recommend consulting with the GSM service providers with regard to the availability of the CSD services on their networks. Some service providers offer such a service on a separate number from the GSM number, some on same number and some do not support the CSD service at all.

Receive Automatic Remote Service calls and alarms:

It is possible to receive the RM service and alarm calls via the UDL software installed on a PC.

Fault Detection: Minimum time for the detection of a GSM fault signal is 2 minutes, 30 seconds.

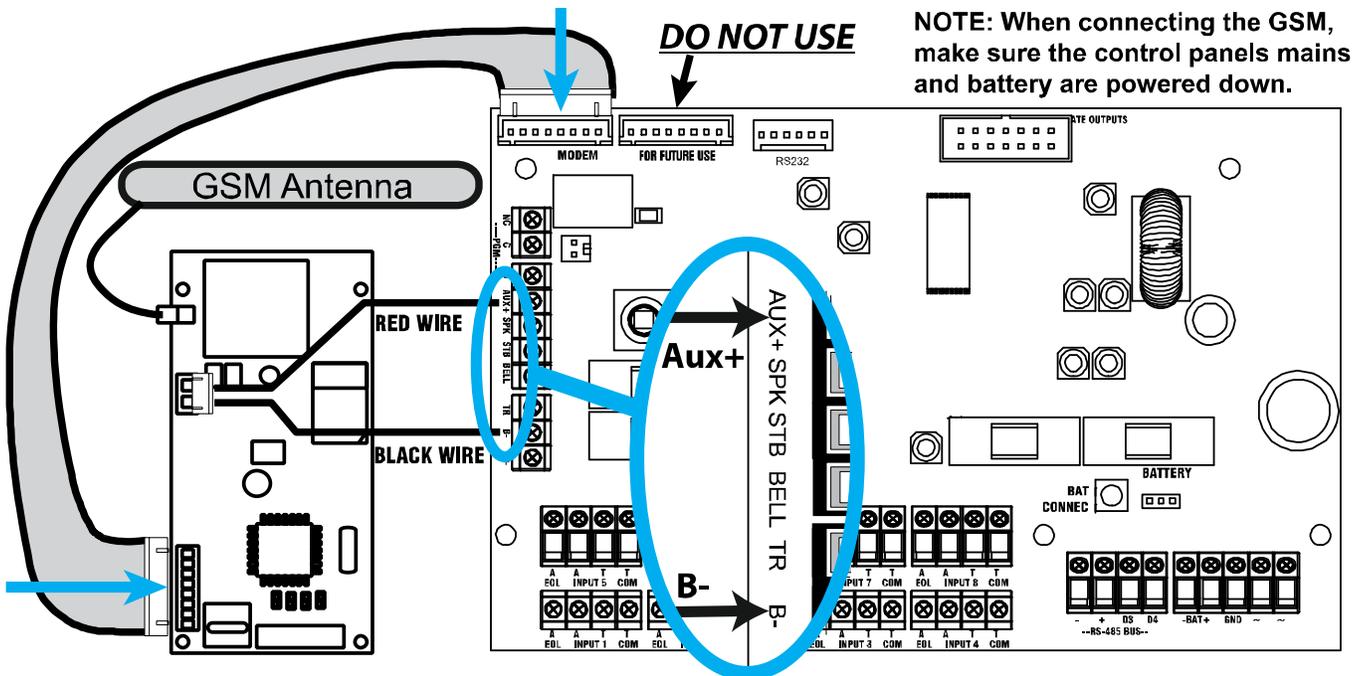
Status LEDs:



Antenna:

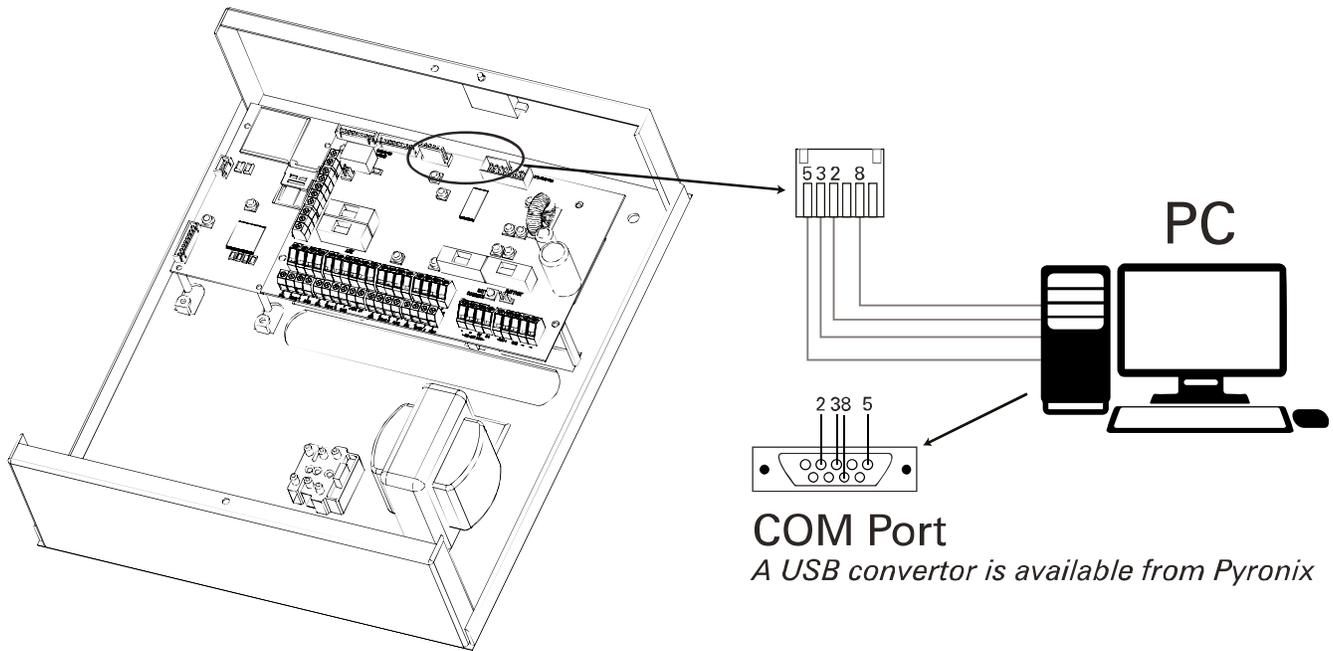
The supplied antenna will need to be connected to the EURO 46 GSM and placed in a suitable area where the signal strength is to its maximum.

IMPORTANT NOTE: REMOVE THE POWER SUPPLY OF THE DIGI-GSM MODEM FROM PANEL WHEN INSTALLING OR CHANGING THE SIM. NOTE: CHECK THE SIM CARD CREDIT REGULARLY.



9.1 Connecting to the Upload/Download Software

The EURO 46 control panel can be programmed by the LCD menu or the UDL InSite Software provided free of charge. It can be downloaded from <http://www.pyronix.com/pyronix-downloads.php>. The connection between control panel and UDL software can be done in the following ways:



9.1.1 Serial Connection (RS232)

1. Enter the Engineer menu (code 1111)
2. Scroll the menu until the "SET UP DOWNLOADING"
3. Choose RS-232 in the "Download by" option

9.1.2 On InSite UDL software from a PC

1. To setup the COM port associated to "modem" open the software, click on "Configuration", - choose "Modem Settings" and select "RS-232" option
2. Make sure that the serial COM used by UDL is the same set in the PC
3. Make sure that the UDL Graphic User Interface has the RS-232 icon green colored and glowing
4. Click on "Roving Dial Customer"
5. Set "Dial Mode" field to "RS-232"
6. Enter the Engineer code in the "Engineer Code" field
7. Click on "Dial"
8. If connection is successful, the RS-232 icon will become blue

NOTE: If a Site Name is set up on the panel the UDL Site Name must be the same otherwise the connection will not be possible.

9.1.3 Modem Connection - DIGI-1200 (PSTN) or DIGI-GSM

Make sure that the panel and the modem on the PC where UDL is installed are connected to a suitable PSTN line.

On the Panel

1. Enter the Engineer Menu (code 1111)
2. Scroll the menu until the "SET UP DOWNLOADING"
3. Choose Modem in the "Download by" option

On InSite UDL software from a PC

1. To setup the COM port associated to "modem" open the software, click on "Configuration", choose "Modem Settings" and select "MODEM" option
2. Verify that COM port associated to "Modem" in the UDL is the same set in the PC
3. Verify that the modem Icon is green and glowing in the software Graphic User Interface

4. In the "Configurations" menu choose the "Modem Type" from the drop down menu. This is the modem connected to the PC and used to call the panel
5. Press "Load Default String" to program the right initialization string for the selected modem
6. Click on "Force Dial customer"
7. Set "Dial Mode" field to "MODEM"
8. Insert the telephone number in "Telephone Number" field
9. Enter the Engineer code in the "Engineer Code" field
10. Click on "dial"
11. If connection is successful, the modem Icon will become blue.

NOTE: If a Site Name is set up on the panel the UDL Site Name must be the same otherwise the connection will not be possible.

10. Access Levels

Level 1: Access by any person; for example the general public.

Level 2: User access by an operator; for example customers (systems users).

Level 3: User access by an engineer; for example an alarm company professional.

Level 4: User access by the manufacturer of the equipment.

Note: Alarm, tamper and fault indications will automatically be cleared within 3 minutes. If a user has finished viewing the information they can terminate the display instantly by pressing the key

11. Compliance

As per EN 50131-1 the EURO 46 is capable of supporting all conditions A,B and C: -

In Grades 1 & 2 I&HAS when an I&HAS or part thereof is in a set state:

- a) Access to the supervised premises or part thereof, via an entry/exit route, shall be prevented, or
- b) Opening the door to the entry/exit route shall initiate an entry procedure, or
- c) Indication of the set/unset status shall be provided.

In Grades 3 & 4 I&HAS when an I&HAS or part thereof is in a set state:

- a) Access to the supervised premises or part thereof, via an entry/exit route, shall be prevented, or
- b) Opening the door to the entry/exit route shall initiate an entry procedure.



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The symbol shown here and on the product, means that the product is classed as Electrical or Electronic Equipment and should not be disposed of with other household or commercial waste at the end of its working life. The Waste Electrical and Electronic Equipment (WEEE) Directive (2012/19/EU) has been put in place to recycle products using the best available recovery and recycling techniques to minimise the impact on the environment, treat any hazardous substances and avoid the increasing landfill.