PRO-AC4
INSTALLATION & SETUP GUIDE

Issue 004 - November 2023

CAME ENTROTEC

CAME.COM/ENTROTEC

LEGAL AND COPYRIGHT NOTICE

CAME Entrotec regularly develop and enhance product lines, these changes will be included in the latest documentation. Whilst every effort has been made to ensure the accuracy of the information supplied herein, CAME Entrotec is not responsible for any errors or omissions. Many of the images shown are for illustration purpose only. The actual product may vary due to product enhancement or custom configurations. The materials contained in this document are protected and may be subject to intellectual property rights.

Copyright 2023 Entrotec Limited. All rights reserved.

INSTALLATION SPECIFICATION

It is the responsibility of the installer to follow CAME Entrotec's installation and cable specification as well as ALL relevant wiring regulations. Failure to comply with CAME Entrotec's installation and cable specification may result in erratic operation of equipment and could invalidate any warranty.

Installations must comply with the following applicable standards:
- **BS 7671**: Requirements for electrical installations. IET Wiring Regulations 18th Edition.
- **The Electricity at Work Regulations 1989**
- **ANSI/TIA-568.0-D**: Generic Telecommunications Cabling for Customer Premises.
- **ANSI/TIA-568.1-D**: Commercial Building Telecommunications Cabling Standard.

IET Wiring Regulations 18th Edition: Regulation 444 (MEASURES AGAINST ELECTROMAGNETIC DISTURBANCES) imposes requirements for segregation of circuits.

IET Wiring Regulations 18th Edition: Regulation 528 (PROXIMITY TO WIRING SYSTEMS TO OTHER SERVICES) imposes requirements for segregation of door entry / access control circuits (Band I), 230VAC mains circuits (Band II) and other higher voltage circuits.

IET Wiring Regulations 18th Edition: Regulations 541 and 542 impose requirements for earthing and bonding conductors. Ensure ALL metalwork is bonded to the buildings earth, this includes call panels, exit switches, cabinets and metal conduit. Ring terminals and earth points are provided on call panels and cabinets to terminate earth cables, ensure these connections are made.

⚠ WARNING - ISOLATION OF ELECTRICAL EQUIPMENT

In compliance with **The Electricity at Work Regulations 1989,** electrical equipment should be made dead to prevent danger while work is carried out on or near that equipment. No person shall be engaged in any work activity on or so near any live conductor.

WARRANTY AND SUPPORT

CAME Entrotec systems are renowned for their reliability and have a 2-year warranty on all CAME Entrotec manufactured products as standard. This warranty does not cover water damage, vandalism, mains electrical faults, lightning strikes, damage caused by miswiring or cable faults.

CAME Entrotec offer complimentary training courses and telephone support:
01506 886 235 - 9am to 5pm Mon-Fri.
technicalsupport@entrotec.co.uk

CONTENTS

1 Cable Specification 4
1.1 Typical Configuration 4
2 Overview 5
2.1 Access Controller 6
3 Power Supply 7
3.1 Mains Supply Connections 7
4 Secure Lock Relay 8
4.1 Input + Exit Switch Connections 8
4.2 Fail Open Lock Connection 8
4.3 Fail Closed Lock Connection 8
4.4 Emergency Door Release 8
4.5 Lock Suppression 9
5 Reader Connections 9
6 Network Connection 10
7 Default IP Address 10

1 CABLE SPECIFICATION

The cabling system is based on Unshielded Twisted Pair **Category 5e** (Cat5e) or **Category 6** (Cat6). The cable must be **annealed pure copper**, meeting or exceeding the requirements defined in the standard ANSI/TIA 568 C.2.

Failure to comply with this cable specification may result in erratic operation of equipment.

The specification below shows the minimum cable requirements, allow for extra cabling if redundancy is required.

	Connection	Cable
A	Access controller to each reader:	1x Cat5e or Cat6.
B	Access controller to locks:	2x 1.5mm² multi-stranded flex or singles (route through any exit/fire switch or break glass for fail safe operation).
C	Access controller to exit switch:	1 Pair UTP (2 cores), Cat5e or Cat6.
D	Access controller to fire switch:	1 Pair UTP (2 cores), Cat5e or Cat6.

1.1 TYPICAL CONFIGURATION

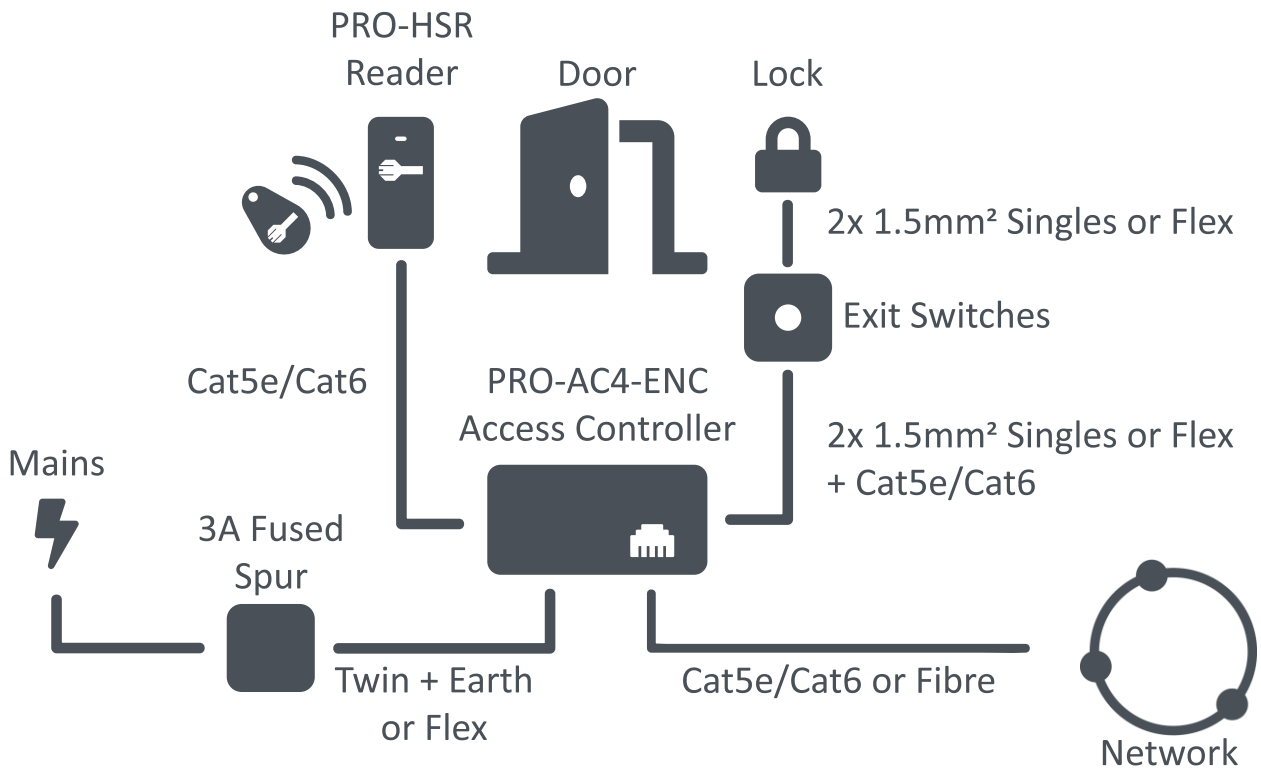


FIGURE 1-1

2 OVERVIEW

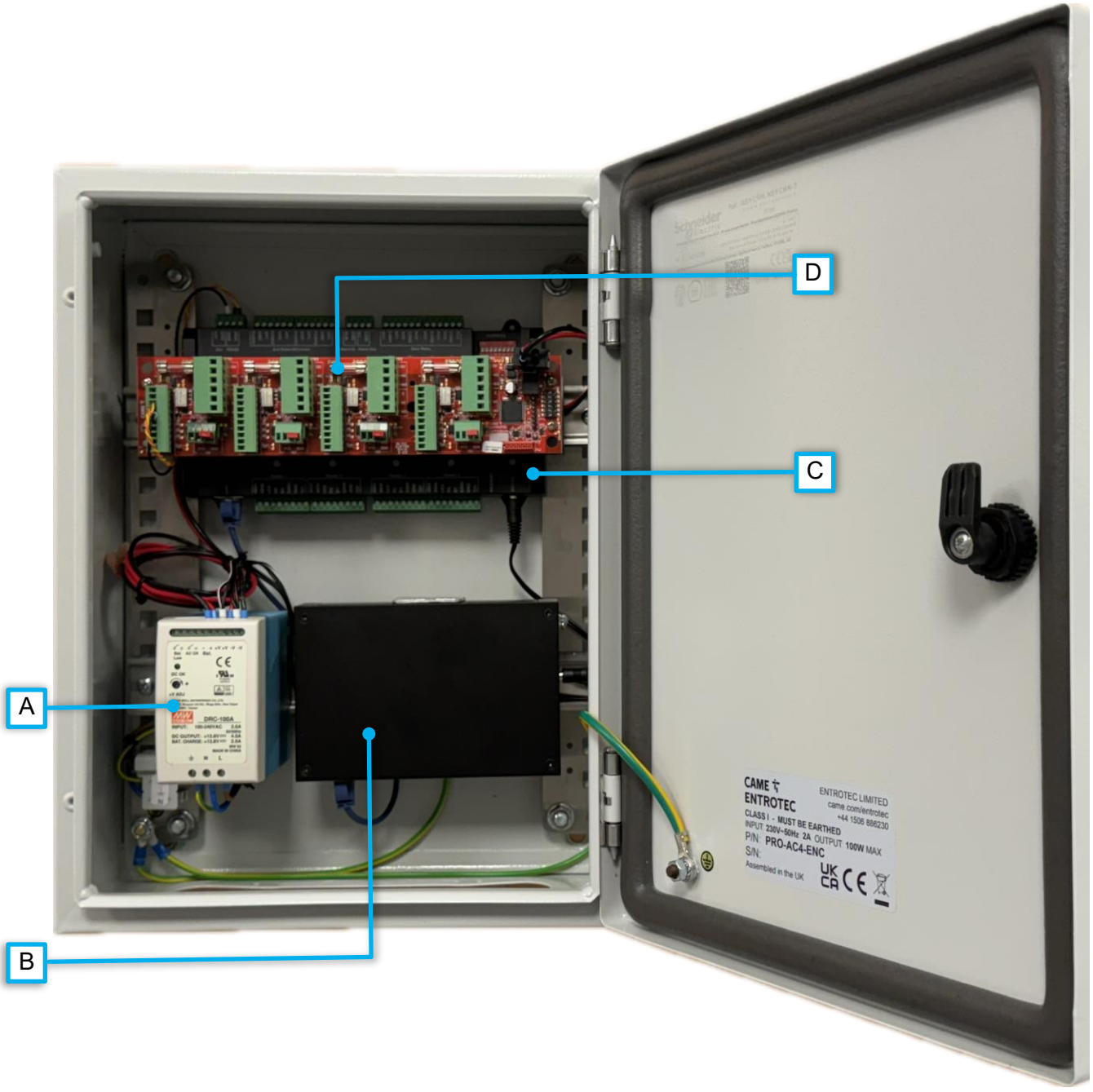


FIGURE 2

	Item	Connection Detail
A	Power Supply Unit (PSU)	Section 3
B	Network Switch	Section 6
C	Access Controller	Section 2.1
D	Secure Lock Relay	Section 4

2.1 ACCESS CONTROLLER

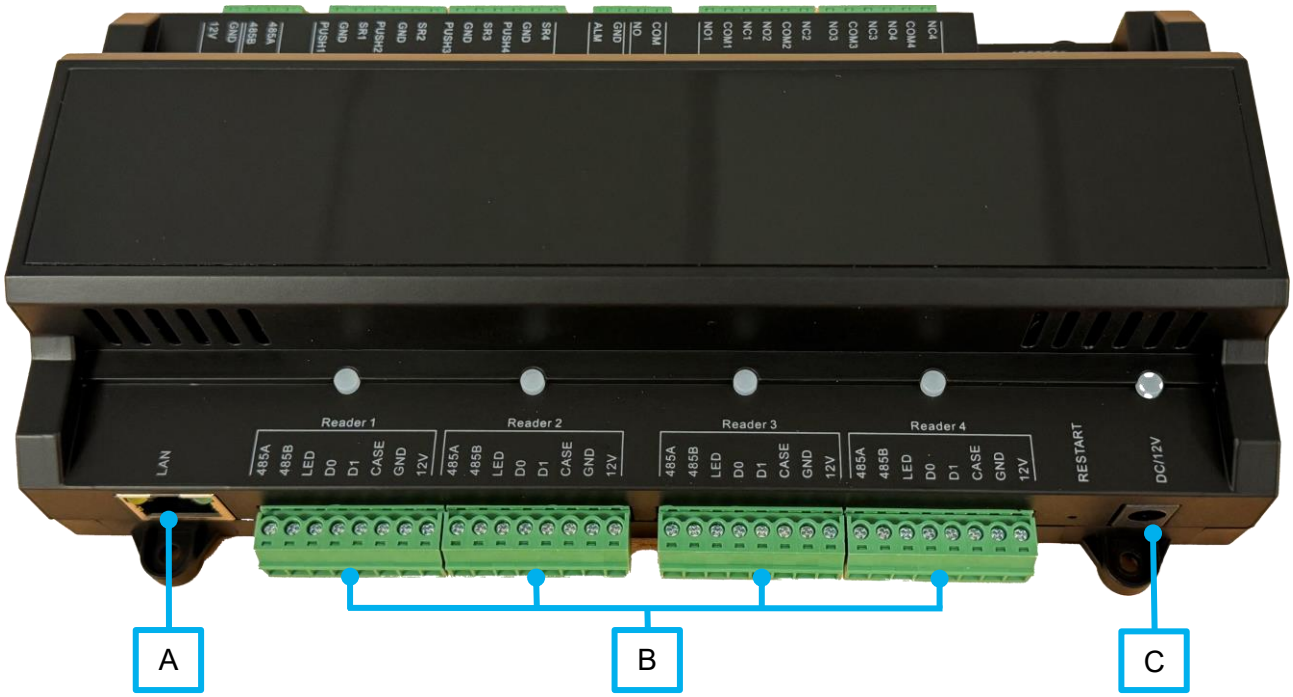
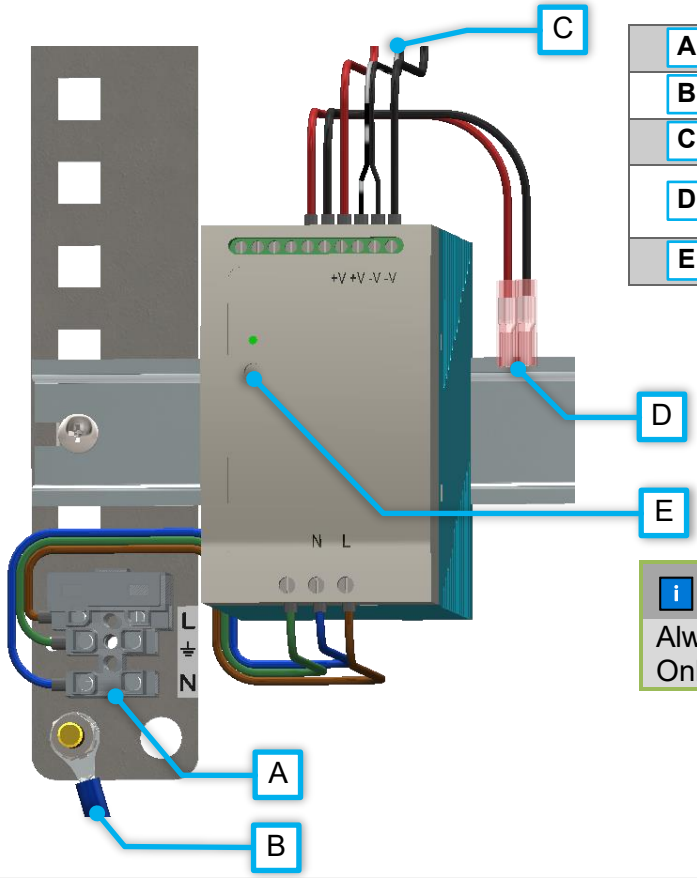


FIGURE 2-1

	Item	Connection Detail
A	Ethernet Port	Section 6
B	Readers Connections (Reader 1 to 4)	Section 5
C	DC12V IN	*Factory fitted*
D	RS485 Data Connection to SLR	*Factory fitted*

FIGURE 2-2

3 POWER SUPPLY



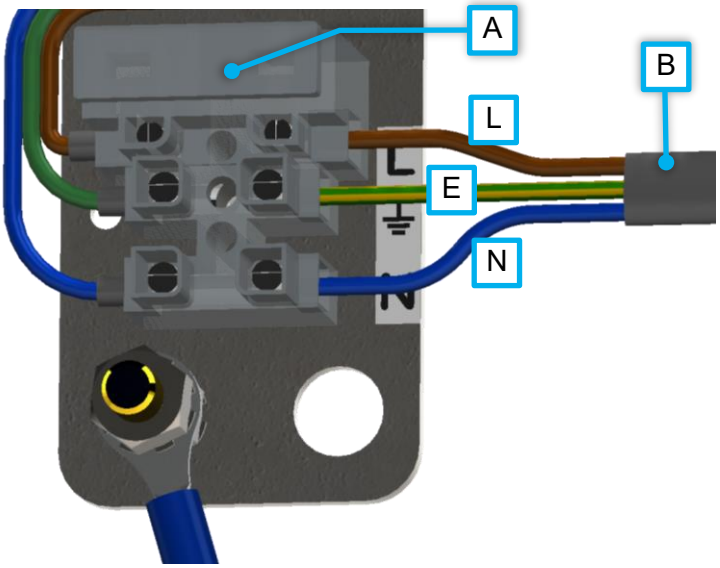
A	Fused Terminal Block
B	Earth Bonding Conductor Point
C	Pre-Wired 12V to Internal Devices
D	Backup Battery Connections for Sealed Lead Acid Battery
E	Output Voltage Adjustment

SYSTEM VOLTAGE 13.8VDC

Always test the output voltage.
Only adjust if required.

FIGURE 3

3.1 MAINS SUPPLY CONNECTIONS



A	**Fuse Holder**
B	**Mains Supply Cable from Fused Spur** 1.5mm² Twin + Earth
L	**LIVE** - BROWN
N	**NEUTRAL** - BLUE
E	**EARTH** - GREEN/YELLOW Sheath

FIGURE 3-1

WARNING

Isolate mains supply before connecting.

4 SECURE LOCK RELAY

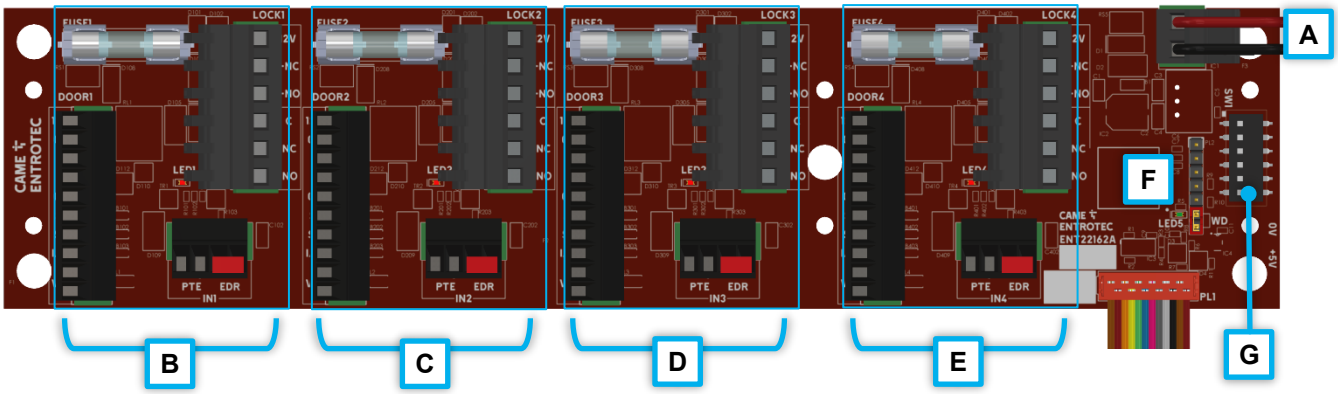


FIGURE 4 - SLR WITH FACTORY FITTED CONNECTIONS

A	**DC IN** - Power Input
B	Channel 1
C	Channel 2
D	Channel 3
E	Channel 4
F	**PL2** - Watchdog Link (bottom pins) and Heartbeat LED
G	**SW1** - RS485 Address + Options

4.1 INPUT + EXIT SWITCH CONNECTIONS

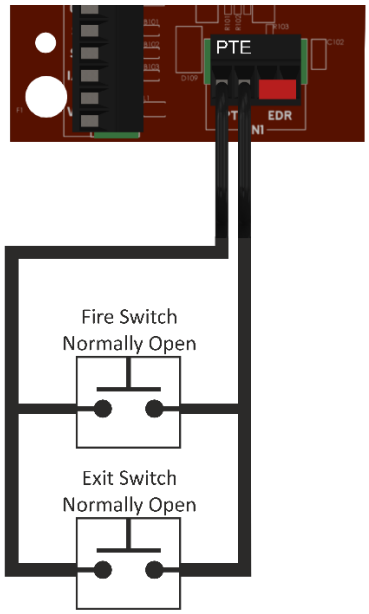


FIGURE 4-1

For double pole push to exit / fire switches with fail open locks, see section 4.2.

4.2 FAIL OPEN LOCK CONNECTION

Connection for fail open locks (power to hold), e.g. magnetic locks.

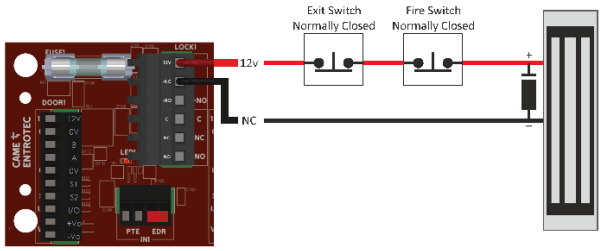


FIGURE 4-2

4.3 FAIL CLOSED LOCK CONNECTION

Connection for fail closed locks (power to release), e.g. electric strike.

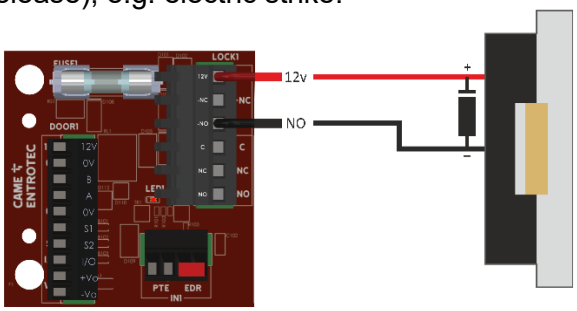


FIGURE 4-3

4.4 EMERGENCY DOOR RELEASE

For fail-safe door release operation, remove **EDR** link and connect a Volt-free Normally Closed circuit (open-circuit to unlock).

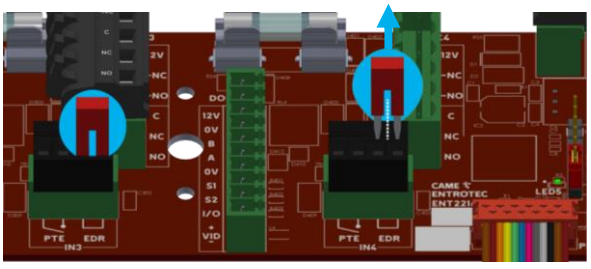


FIGURE 4-4 – E.G. FIRE ALARM DROPOUT APPLICATION

4.5 LOCK SUPPRESSION

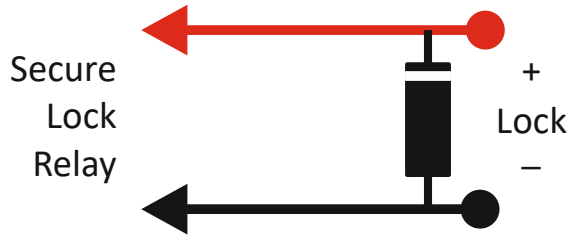


FIGURE 4-5 - 1N4007 DIODE FITTED AT LOCK

CAME Entrotec recommend locks with built in suppression. If such a lock is not being used it is ESSENTIAL to fit suitable suppression, as close to the lock as possible. This prevents back EMF and spikes from damaging equipment and causing erratic operation.

⚠ WARNING

Failure to fit adequate suppression may invalidate any warranty.

SUITABLE SUPPRESSION

CAME Entrotec supply 1N4007 diodes.

5 READER CONNECTIONS

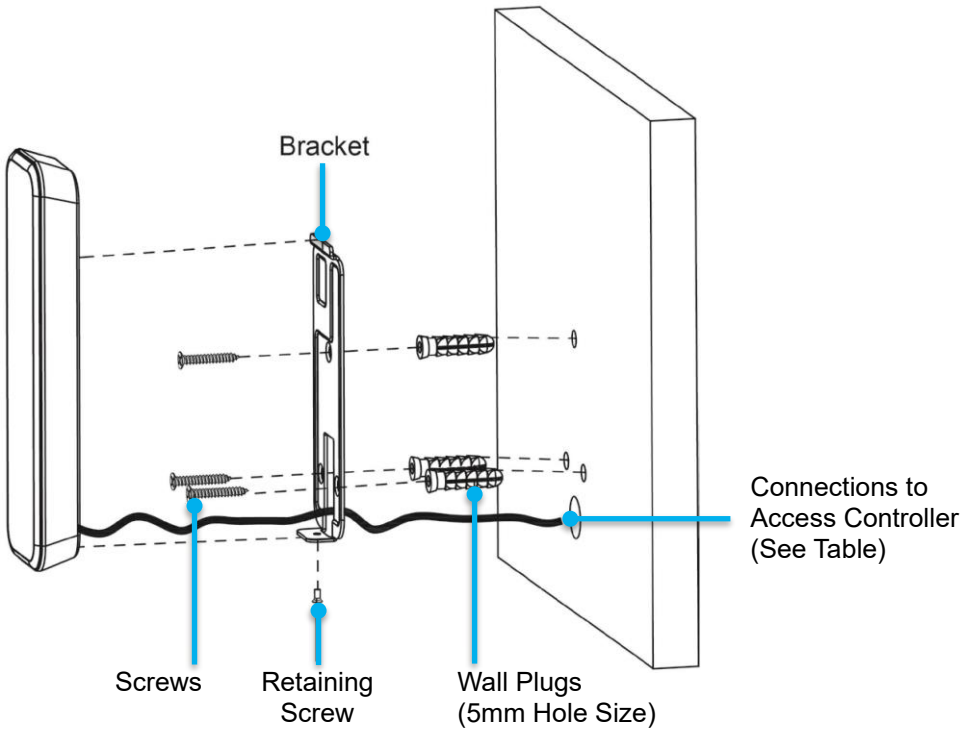


FIGURE 5-1

Colour	Connection to Access Controller	Description
Red	DC12V	12V DC - power input
Black	GND	0V
Blue	CASE	Tamper Alarn
White	D1	Wiegand outputs (when using Wiegand protocol)
Green	D0	
Brown	LED	LED control input (when using Wiegand protocol)
Yellow	RS485 B	RS485 (when using RS485 protocol)
Purple	RS485 A	

6 NETWORK CONNECTION

Connection	Cable Type	Detail
Ethernet from Network Switch to LAN.	1x Cat5e or Cat6	RJ45 - T568B

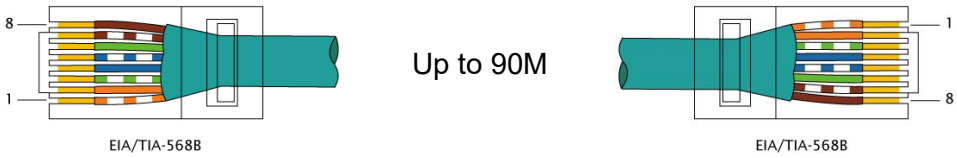


FIGURE 6

7 DEFAULT IP ADDRESS

The default IP address for the PRO-AC4 is **192.168.1.108**. To change the IP address please follow the steps below:

1. Connect a laptop or PC to the same network as the Access Controller.
2. Using the ePRO Config tool, change the IP address of the PRO-AC4 using the default credentials:
    - Username: **admin**
    - Password: **admin123**

NOTE

For further info on configuring the Access Controller using ePRO config tool, please refer to ***ePRO-Config User Guide***.

CAME ENTROTEC

CAME ENTROTEC
5 Ashwood Court
Oakbank
Livingston
EH53 0TL

Tel: 01506 886230
Support: 01506 886235

CE

© PROAC4GUIDE1123 - 2023 - EN
YOU MAY NOT EVEN PARTIALLY REPRODUCE THIS DOCUMENT
THE DATA AND INFORMATION SHOWN IN THIS CATALOGUE ARE SUBJECT TO CHANGE WITHOUT OBLIGATION TO GIVE PRIOR NOTICE BY CAME S.P.A. E&OE

CAME S.p.A.
Came cancelli automatici S.p.A.
is certified for Quality and Environment
UNI EN ISO 9001
UNI EN ISO 14001
BS OHSAS 18001

CAME.COM/ENTROTEC