



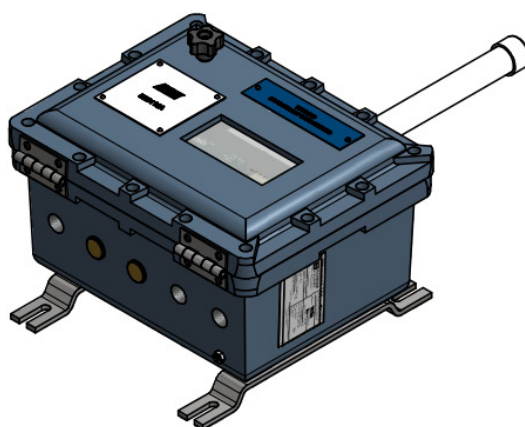
IMPROVING EFFICIENCY,  
SAFETY & DATA OPTIMISATION

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# **EZ8110A Zone 1 Wifi Torque Unit**

**In compliance with  
Atex &  
Norsok Z-015 Standards**

**Operation, Installation & Maintenance  
Manual  
Rev 7.00 dated 17/04/2025.**



## EZ8110A O.I.M

***Prior to installation, maintenance or operation ensure sections 1 – 10 have been read and clearly understood.***

# EZ8110A O.I.M

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The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information herein.

## 1.0 ABOUT THIS MANUAL

Thank you and congratulations on purchasing the EZ8110A Zone 1 Wifi Torque Unit. This manual will guide you through safety, installation, set up and maintenance of the EZ8110A system.

### Graphical Symbol Explanation



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important instructions in literature accompanying with the system.



The lightning arrow within an equilateral triangle is intended to alert the user to the presence of high voltage instructions in literature accompanying with the system.



The hand within an equilateral triangle is intended to alert the user to the presence of Electric Static Device (ESD) instructions in literature accompanying with the system.

## 2.0 IMPORTANT SAFEGUARDS

Read the manual thoroughly with particular attention to section 6 before attempting to install, operate or maintain the system.

The EZ8110A complies with applicable Essential Health and Safety Requirements of Annex II of the ATEX Directive 2014/34/EU relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres.

The EZ8110A is protected to IP66 when properly installed, and it can operate in ambient temperatures from -20°C to +50°C.



Do not use the unit if any seals, connectors, or glands are damaged. Damage to these parts may provide an external flame path. These parts are vital to the safe certified operation of the unit.



The system should only be opened, and installation and maintenance work be carried out in a safe area, the system should NEVER be opened in a hazardous area unless the engineer/operator is under a permit to work.



For all connections isolate elsewhere before separation or connection



The EZ8110A weighs approximately 12kg. Proper lifting techniques should be adhered to when moving or lifting the system. If the system is not handled safely other equipment may be damaged or personnel be injured.



Antenna is a potential electrostatic charging hazard. Clean with a damp cloth.

Any modification or unauthorized repair of the EZ8110A system may affect compliance with the ATEX directive.

## 3.0 INSPECTION OF GOODS

Each EZ8110A system is shipped in a single heavy-duty crate.

### 3.1 Inspection of goods

Inspect the system on receipt of delivery and note any visible damage to the crate or contents. Notify the freight company immediately if damaged items are found.

If the contents of the shipping crate appear to be damaged or missing contact EZTEK LTD as soon as possible. Tel. +44 1224 791977, Fax. +44 1224 791399, Email [info@eztek.co.uk](mailto:info@eztek.co.uk)

### 3.2 Packing List

Please check goods against delivery documentation

### 3.3 Unpacking the goods.

1. Remove any shipping documentation from the exterior of the shipping crate and store in a safe place.
2. Remove lid of the crate and remove any packaging.
3. Remove any documentation and additional equipment.



The EZ8110A weighs approximately 12 kg. Proper lifting techniques should be adhered to when moving or lifting the system. If the system is not handled safely other equipment may be damaged or personnel be injured.

4. Remove the EZ8110A unit from the shipping crate.

## 4.0 DESCRIPTION

### 4.1 General

The EZ8110A zone 1 Wifi Torque unit is a Data acquisition system housed in a flameproof enclosure which incorporates the following features:

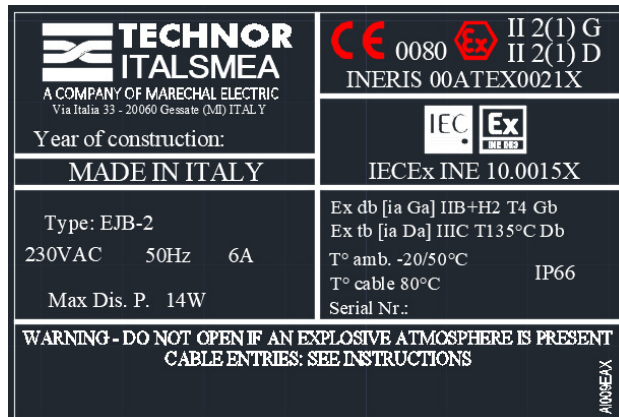
- Flameproof enclosure
- Suitable for Zone 1 hazardous area environment
- 1x Intrinsically Safe 4-20mA Current loop input for torque
- 1x Intrinsically Safe Encoder input for encoder
- 1 x Solenoid output
- 1 x AC Output
- Internal Wireless to serial Adapter
- External Atex Intrinsically Safe Wireless Antenna
- Status LEDs visible from enclosure window
- 100-240VAC autosense supply voltage

### 4.2 Power requirements

The system operates from an 100-240VAC 50-60Hz autosense supply voltage. Current consumption depends on instrumentation connected to outputs and is typically less than 0.5 Amps. The maximum dissipated wattage is 1W.

### 4.3 Hazardous area operation

The EZ8110A Zone 1 Wifi torque unit is a system housed in a sealed IP66 flame proof enclosure and is designed in accordance with ATEX standards EN60079-0,1,11,31 to allow zone 1 hazardous areas.



## 5.0 TECHNICAL SPECIFICATIONS

The EZ8110A Zone 1 System is designed to comply with applicable Essential Health and Safety Requirements of Annex II of the ATEX Directive 2014/34/EU as Zone 1 rated equipment for use in hazardous areas. The EZ8110A enclosure is rated to IP66.

ATEX compliant marking: II 2 G Ex db IIB+H2 T4 Gb

### **Conformity has been demonstrated with reference to the following documentation:**

EC type examination certificates : INERIS 00 ATEX 0021X

Compliance with the essential health and safety requirements has been assessed by reference to the following standards:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-11:2012

EN 60079-31:2014

**Temperature Rating:** -20°C to +50°C



## 6.0 IMPORTANT INFORMATION AND SPECIAL CONDITIONS

ENSURE THE BELOW INFORMATION IS READ AND CLEARLY UNDERSTOOD PRIOR TO INSTALLATION, OPERATION OR MAINTENANCE.

Any modification or unauthorized repair of the unit will void certification.

All enclosures within the EZ8110A system must only be opened in a safe area only; these enclosures must NEVER be opened in a hazardous area unless the engineer/operator has a permit to work.

Any work should be carried out by a qualified engineer.

No parts should be substituted without the approval of Eztek Ltd.

The EZ8110A system can ONLY be used within the bounds of its certification. Any external connectors/cable glands are covered by the manufacturer's own safety instructions. Any visible damage should be checked to avoid electrical or Ex hazards. The maintenance and inspection of the system is to be performed according to EN 60079-17/60079-1 (NEK420) standards.

The dimensions of the flameproof joints are different from the values specified in the tables of the EN 60079:1 standard. The flameproof joints are not intended to be repaired.

The screws used for the lid fastening must have a tensile strength higher or equal to 800N/mm<sup>2</sup>. Lid screws must be greased with Loctite 8104 or similar. Lid screw torque settings 10Nm.

To maintain IP66 rating the enclosure flange joint must be coated with silicone grease.

If paintwork is damaged, please maintain as per 60079:0 7.4.2 table 8. Do not allow build-up of material on panel.

If any damage is found, the panel should be put out of service and the manufacturer contacted.

# EZ8110A O.I.M

## Section 6 continued

NEVER POWER UP A UNIT IN HAZARDOUS AREA IF:

- The enclosures show signs of damage.
- Any of the connectors or cables shows signs of damage.

These are vital parts to the safety.

Antenna is an electrostatic charging hazard, clean with a damp cloth only.

The maximum radiated power must not exceed that allowed in the area of installation.

(IEC 60079-0). IIC 2W, IIB 2.5W, IIA 6W.

The EZ8110-01-XX hookup cable as per Norsok standard Z-015 section 5.7.2 can be rubber-insulated cable type H07RN-F or equivalent, at least 35 m long, with a temperature rating of 85 °C. NEK606 cable should be used with lengths less than 35m.

The pressure sensor and encoder are not within the scope of supply, ensure that the connecting pressure sensor and encoder with connecting cables are evaluated to comply with the specified IS Loop safety parameters:

$$U_o < U_i$$

$$I_o < I_i$$

$$P_o < P_i$$

$$C_o > C_i + C_c$$

$$L_o > L_i + L_c$$

Pressure Sensor connection to the EZ8110-02-XX, safety parameter requirements:

$$U_o = 26.2V$$

$$I_o = 93mA$$

$$P_o = 634mW$$

$$C_o (IIC) = 92nF$$

$$L_o (IIC) = 4.11mH$$

$$L/R \text{ Ratio (IIC)} = 56.22\mu H/\Omega$$

Encoder connection to the EZ8110-03-XX, safety parameter requirements:

$$U_o = 10.5V$$

$$I_o = 17.1mA$$

$$P_o = 45mW$$

$$C_o (IIC) = 2.41\mu F$$

$$L_o (IIC) = 121.5mH$$

$$L/R \text{ Ratio (IIC)} = 0.79mH/\Omega$$

## EZ8110A O.I.M

### *Section 6 continued*

Pressure sensor and encoder cables interfacing with the EZ8110-02-XX and EZ8110-03-XX as per Norsok E-001 require to be NEK606 or suppliers standard cables are accepted and should be short as possible with mechanical protection.

For operation with the connected pressure transducer the process temperature (medium) at the diaphragm of the transmitter must be in range of ambient temperature.

The EZ8110-04-XX cable is fitted with a 250VAC 16A connector therefore if a 110VAC supply is required then an appropriate connector should be selected. The AC out current is protected by an internal 6A Type C MCB.

The AC Out connection is a direct feed from the AC in Connection therefore the voltage on the AC out will always reflect the AC in voltage. Cables interfacing with the EZ8110-04-XX require to be NEK606.

The EZ8110-05-XX solenoid out connection supplies an internally fused 24V 2.0A supply. Cables interfacing with the EZ8110-05-XX require to be NEK606.

Read this manual thoroughly before attempting to install, operate or service the system. ONLY certified personnel are permitted to open this enclosure. (Certified Personnel means approved by Eztek Limited or operator/owner with proper training in handling certified equipment for use in hazardous areas).

Warnings and cautions are stated in several places in the manual, mainly for the security and safety of the personnel, but also to protect the equipment from damage.

## 7.0 ENVIRONMENTAL SPECIFICATIONS

Eztek are a company fully committed to protecting and safeguarding the environment.

EZTEK are now a member of a WEEE compliance scheme through WEEECare. They will manage the collection and disposal of WEEE goods to satisfy all current regulatory requirements.

This in effect means that the collection and disposal method eliminate unnecessary waste pollution to the environment. This disposal service separates the individual materials contained within the units and collects safely the hazardous contaminants from the units for proper and safe disposal.

If you require to scrap or return units for disposal, please use the following contact details:

Contact: WEEECare @ UK TEL 0844 800 2004 to arrange pickup, advise WEEECare that the Account number is 159279.

Advise WEEECare you want them to pick up a unit for scrapping/disposal.



## 8.0 SYSTEM SPECIFICATIONS

### Data Acquisition Electronic Interface

|          |  |
|----------|--|
| Channels | 1 x Intrinsically Safe Torque Input 4-20mA<br>1x Intrinsically Safe Namur Encoder Input<br>1 x Solenoid Output |
|----------|--|

|      |   |
|------|---|
| Wifi | Intrinsically Safe RF Output<br>Omni Directional Antenna 2400/5800MHz<br>Line of site tested up to 40m. |
|------|---|

### Enclosure

|                       |                 |
|-----------------------|-----------------|
| Type                  | Aluminium Alloy |
| Seal Rating           | IP66            |
| Operating Temperature | -20 to 50°C     |

## 9.0 INSTALLATION

The EZ8110A is designed to be used in any location up to zone 1 hazardous areas. The system is designed to be wall or frame mounted. The unit should be positioned so that the viewing window is ideally at an ergonomic height.

Suitable space should also be provided for cable and connector entry points allowing for the minimum bend radius of the cables. Cables must be secured to prevent tension or unnecessary movement at the connector or glands.

Suitable space should be provided for the antenna, ensuring the device is not obstructed by any hazards which may impede the signal. The antenna is not designed to come into contact with aggressive substances or environments and is not designed to be subjected to excessive stresses e.g. vibration, heat, or impact. Additional protection may be required.

When attaching the antenna to the enclosure a force of no greater than 1.1Nm should be used when making up the N-Type connection.



For all connections isolate elsewhere before separation or connection



The EZ8110A weighs approximately 12 kg. Proper lifting techniques should be adhered to when moving or lifting the system. If the system is not handled safely other equipment may be damaged or personnel be injured.



All local cabling to the EZ8110A system must be installed according to safety regulations and site instructions.

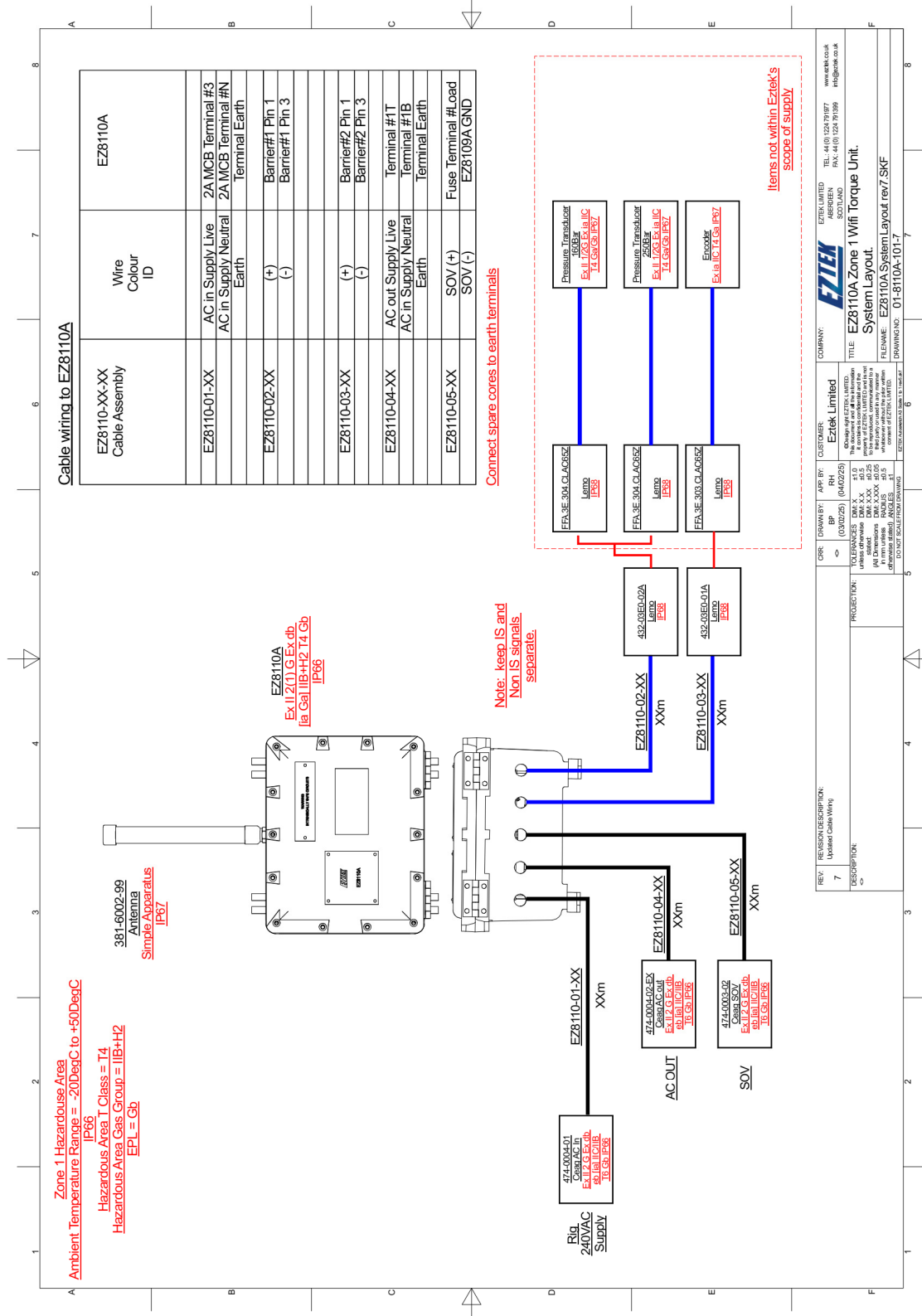


Before installation inspect the EZ8110A for any visible damage, check if seals, connectors, and glands are damaged. Ensure that the lid is closed. If any damage is found return the system for repair as any damage could invalidate system certification.

*Installation should be carried out by a qualified engineer.*

# EZ8110A O.I.M

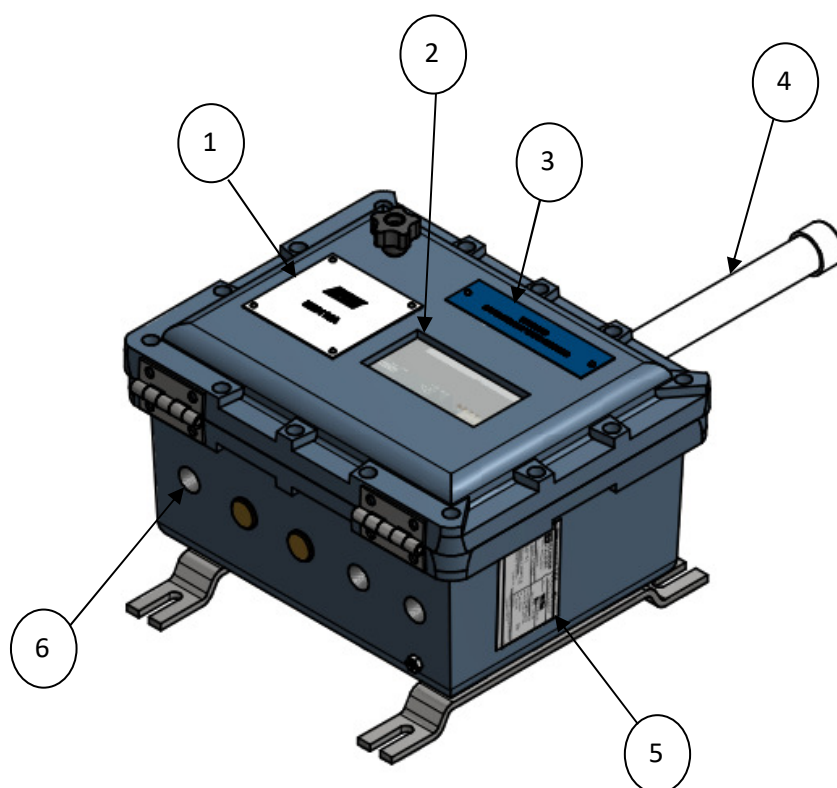
## Section 9 continued



EZ8110A BLOCK DIAGRAM

# EZ8110A O.I.M

*Section 9 continued*



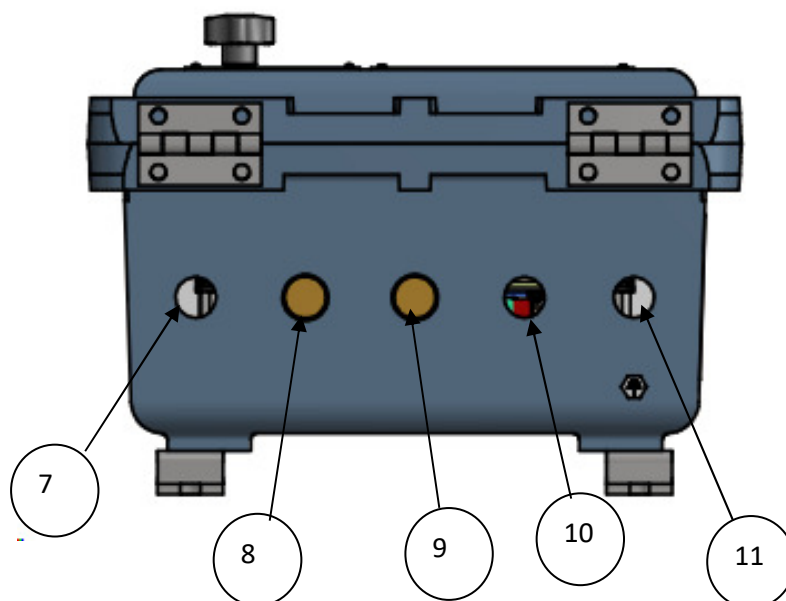
## *EZ8110A General Layout*

1. SN and Information Label.
2. Viewing window for internal component status
3. Intrinsically safe Label
4. Antenna.
5. Certification Label
6. Connections and Gland entries.



## EZ8110A O.I.M

### *Section 9 continued*



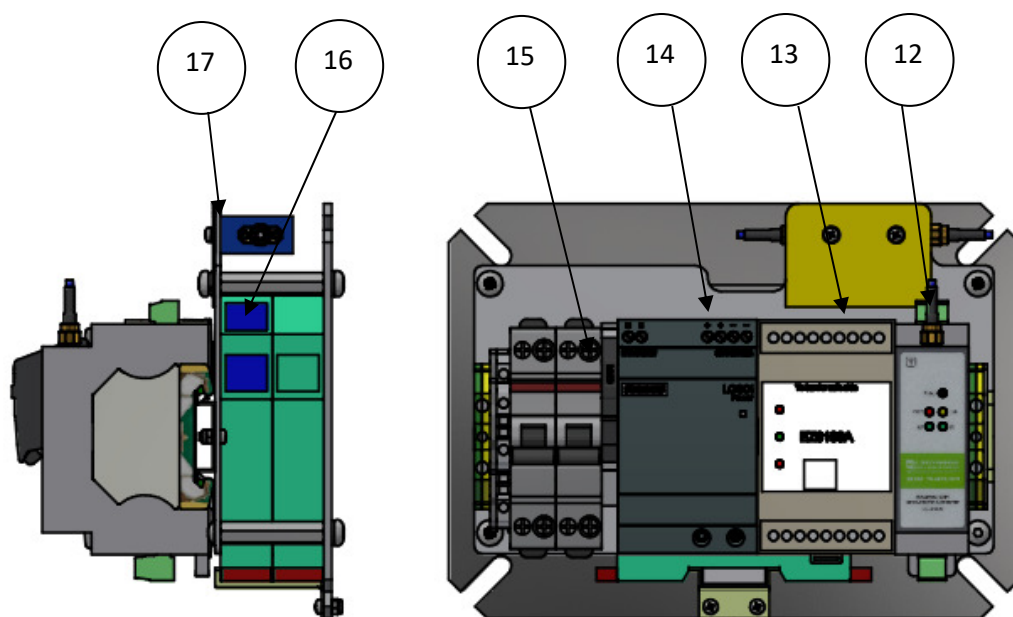
#### *EZ8110A Bottom Layout*

The figure above shows EZ8110A's bottom layout. It provides the following features:

- 7. M20 Entry (Mains AC In)
- 8. M20 Entry (AC Out)
- 9. M20 Entry (Solenoid)
- 10. M20 Entry (Intrinsically Safe Load cell)
- 11. M20 Entry (Intrinsically Safe Encoder)

## EZ8110A O.I.M

### Section 9 continued



#### *EZ8110A Internal Layout*

The figure above shows EZ8110A's internal layout. It provides the following features:

- 12. RS485 to Wifi/Ethernet Converter
- 13. Torque DAQ Module
- 14. PSU
- 15. Terminals and Circuit Protection
- 16. Intrinsically Safe Barriers
- 17. Intrinsically Safe RF Barrier

## EZ8110A O.I.M

### *Section 9 continued*

#### **Supply Power to EZ8110A**



Please refer to section 6 for important information and special conditions before carrying out installation.

The power must be connected to a suitable 100 or 240 VAC (47 to 65 Hz) supply via the supplied EZ8110-01-XX cable. Note: if the supply cable gland for the Junction Box is not provided; a suitable Ex gland should be used. It is recommended that a H07RN-F or equivalent Cable is used with a minimum length of 35m, as per Norsok standard Z-015 section 5.7.2 otherwise NEK606 cable should be used lengths less than 35m. For correct cable gland assembly please refer to cable gland manufacturer's instructions.

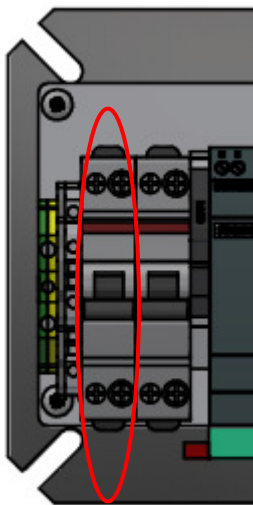
The EZ8110-01-XX cable is connected to the internal terminals of the EZ8110A. The AC In feed to the enclosure power supply is protected by a 2A Type C 1P+N MCB.

#### **EZ8110A AC In Power Wiring:**

2A MCB Terminal# 3: Live

2A MCB Terminal #N: Neutral

Terminal Earth: Earth



*EZ8110A AC In Power Terminals*

Please refer to section 14 for wiring drawings.

# EZ8110A O.I.M

## Section 9 continued

### AC Out connection



Please refer to section 6 for important information and special conditions before carrying out installation.

The AC Out supply can be connected via the supplied EZ8110-04-XX cable. Note: if the supply cable gland for the Junction Box is not provided; a suitable Ex barrier gland should be used. It is recommended that a NEK606 Cable is used. For correct cable gland assembly please refer to cable gland manufacturer's instructions.

The AC Out connection is a direct feed from the AC in Connection therefore the voltage on the AC out will always reflect the AC in voltage.

The EZ8110-04-XX cable is fitted with a 250VAC 16A connector therefore if a 110VAC supply is required then an appropriate connector should be selected. The AC out current protected by a 6A Type C 1P+N MCB

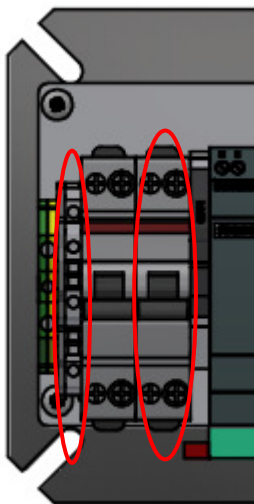
Cables interfacing with the EZ8110-04-XX require to be NEK606.

### EZ8110A AC Out Power Wiring:

Terminal# 1T: Live

Terminal #1B: Neutral

Terminal Earth: Earth



### *EZ8110A AC Out Power Terminals*

Please refer to section 14 for wiring drawings.

# EZ8110A O.I.M

## Section 9 continued

### Solenoid connection



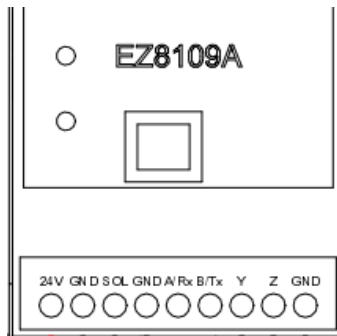
Please refer to section 6 for important information and special conditions before carrying out installation.

The Solenoid connection can be connected via the supplied EZ8110-05-XX cable. Note: if the supply cable gland for the Junction Box is not provided; a suitable Ex barrier gland should be used. It is recommended that a NEK606 Cable is used. For correct cable gland assembly please refer to cable gland manufacturer's instructions.

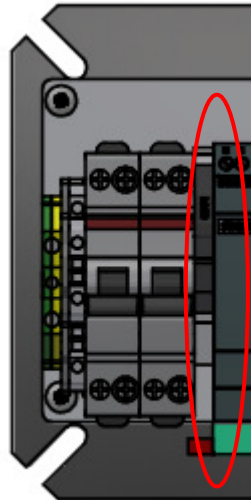
Cables interfacing with the EZ8110-05-XX require to be NEK606.

The Solenoid cable is to be connected directly to the EZ8109A Torque DAQ Module and the internal fuse terminal

The solenoid out connection supplies a 24V 2A internally fused supply.



*EZ8110A Solenoid Terminals*



### **EZ8110A Solenoid Wiring:**

Fuse Terminal#Load: Solenoid +

EZ8109A GND: Solenoid -

# EZ8110A O.I.M

## Section 9 continued

### Encoder connection.

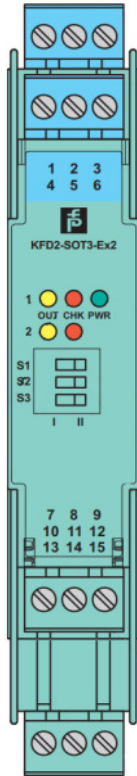


Please refer to section 6 for important information and special conditions before carrying out installation.

The Encoder connection can be connected via the supplied EZ8110-03-XX cable.  
Note: if the supply cable gland for the Junction Box is not provided; a suitable Ex barrier gland should be used. It is recommended that NEK606 cable is used. For correct cable gland assembly please refer to cable gland manufacturer's instructions.

The Encoder cable is to be connected directly to Barrier#2.

Barrier  
#2



Barrier #2

1: Phase A+  
3: Phase A-  
4: Phase B+  
6: Phase B-

The encoder is not within the scope of supply, ensure that the connecting encoder with connecting cables are evaluated to comply with the specified IS Loop safety parameters and that the cable is as per Norsok E-001 required to be NEK606 or suppliers' standard cables are accepted and should be short as possible with mechanical protection.

$U_o < U_i$   
 $I_o < I_i$   
 $P_o < P_i$   
 $C_o > C_i + C_c$   
 $L_o > L_i + L_c$

Encoder connection to the EZ8110-03-XX, safety parameter requirements:

$U_o = 10.5V$   
 $I_o = 17.1mA$   
 $P_o = 45mW$   
 $C_o (IIC) = 2.41\mu F$   
 $L_o (IIC) = 121.5mH$   
 $L/R \text{ Ratio (IIC)} = 0.79mH/\Omega$

# EZ8110A O.I.M

## Section 9 continued

### Load Cell connection.



Please refer to section 6 for important information and special conditions before carrying out installation.

The Load Cell connection can be connected via the supplied EZ8110-02-XX cable. Note: if the supply cable gland for the Junction Box is not provided; a suitable Ex barrier gland should be used. It is recommended that NEK606 cable is used. For correct cable gland assembly please refer to cable gland manufacturer's instructions.

The Load Cell cable is to be connected directly to Barrier#1. Any spare cores should be terminated to earth.

#### Barrier

#1



#### Barrier #1

1: +

3: -

The pressure sensor is not within the scope of supply, ensure that the connecting sensor with connecting cables are evaluated to comply with the specified IS Loop safety parameters and that the cable is as per Norsok E-001 required to be NEK606 or suppliers standard cables are accepted and should be short as possible with mechanical protection.

$$U_o < U_i$$

$$I_o < I_i$$

$$P_o < P_i$$

$$C_o > C_i + C_c$$

$$L_o > L_i + L_c$$

Pressure Sensor connection to the EZ8110-02-XX, safety parameter requirements:

$$U_o = 26.2V$$

$$I_o = 93mA$$

$$P_o = 634mW$$

$$C_o (IIC) = 92nF$$

$$L_o (IIC) = 4.11mH$$

$$L/R \text{ Ratio (IIC)} = 56.22\mu H/\Omega$$

## **10.0 SYSTEM OPERATION**

### **START UP PROCEDURE**

- Ensure all cables are connected as per installation procedure.
- Ensure the AC input supply is as specified.
- To power up the EZ8110A system apply AC supply.
- The system will automatically switch on.



## **EZ8110A Operation**

# EZ8110A O.I.M

## *Section 10 continued*

### **SYSTEM OPERATION:**

The EZ8110A Zone 1 wifi torque unit receives data from the locally connected torque and position sensors. This data is then transmitted through RS485 communications via the Wifi connection to the client remote device running the WinGrit software. Ensure that line of sight is maintained to prevent loss of signal.

The solenoid connection is available to connect a local solenoid valve to shut down the system in case of overpressure.

For details on the WinGrit software please refer to client documentation.

## 11.0 GENERAL MAINTENANCE & SAFETY

A routine visual inspection should be carried out on the EZ8110A system every time prior to the system being powered. This should be carried out by a competent engineer. The visual inspection should include:

- Check the enclosure for physical damage e.g. cracks in the enclosure or damage to seal faces.
- Check cables, glands, and connectors for damage.
- Ensure that the lid is securely closed.

If a problem with the EZ8110A system is found with the above checks the system must not be powered up in a zone 1 area.

If there is any uncertainty with the safety or condition of the system, please contact Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

A yearly routine maintenance check should be carried out to ensure the system is still in good working condition. This should be carried out by a competent engineer. The maintenance check should include:

- Check the enclosure for any physical defects.
- Check for any mechanical damage and corrosion.
- Check any external cable glands/connectors for damage.
- Check that all mechanical fixings are secure.
- Check for any cabling damage.
- Always inspect the seal after any repair or if the system has been opened.



Never use the EZ8110A system if the seal has been damaged.



Any modification or unauthorized repair of the EZ8110A system may affect compliance with the ATEX standard.

If there is any uncertainty with the safety or condition of the system, please contact Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

## 12.0 GENERAL OPERATION TROUBLESHOOTING



Please refer to section 6 for important information and special conditions before carrying out troubleshooting.

**EZ8110A will not switch on** – Check mains supply, check supply cabling, return the system to a safe area for further investigation/repair.

**No sensor readings or sensor readings do not change.** – Check cabling between Sensors and EZ8110A.

Check wifi connection between EZ8110A and remote device; return the unit to Eztek Ltd for repair. Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

## 12.1 TROUBLESHOOTING FOR REPAIR



Any modification or unauthorized repair of the EZ8110A system may affect compliance with the ATEX standard. The system should only be opened, and installation and maintenance work be carried out in a safe area, the system should NEVER be opened in a hazardous area unless the engineer/operator is under a permit to work. Any work should be carried out by a qualified engineer. No parts should be substituted without the approval of Eztek Ltd.

**SEE SECTION 13.0 BEFORE OPENING THE EZ8110A SYSTEM**

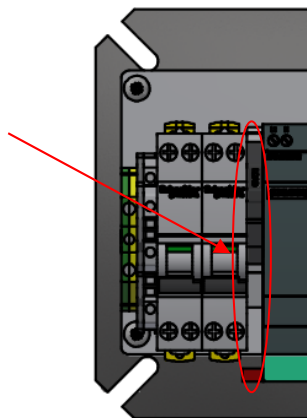
**Unit will not switch on.** – Check and reset the 2A MCB. If this does not rectify the problem, please return the unit to Eztek Ltd for repair. Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

**No AC Out Power.** – Check and reset the 6A MCB. If this does not rectify the problem, please return the unit to Eztek Ltd for repair. Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

**No SOV Power.** – Check and reset the SOV fuse with a 20x5mm 2A (T) anti surge replacement. To replace the fuses, ensure that mains power is isolated elsewhere. Flip the tab of the fuse holder, replace fuse and return tab to seated position. If this does not rectify the problem, please return the unit to Eztek Ltd for repair. Eztek Ltd (Tel +44 1224 791977, Fax +44 1224 791399, email [sales@eztekglobal.com](mailto:sales@eztekglobal.com))

Fuse Terminal :

2A (T) 20x5mm



## 13.0 OPENING THE EZ8110A SYSTEM



Any modification or unauthorized repair of the EZ8110A system may affect compliance with the ATEX standard. The system should only be opened, and installation and maintenance work be carried out in a safe area, the system should NEVER be opened in a hazardous area unless the engineer/operator is under a permit to work. Any work should be carried out by a qualified engineer. No parts should be substituted without the approval of Eztek Ltd.



The EZ8110A weighs approximately 12 kg. Proper lifting techniques should be adhered to when moving or lifting the system. If the system is not handled safely other equipment may be damaged or personnel be injured.



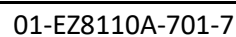
ESD sensitive equipment inside, observe precautions when handling ESD sensitive equipment.

- Ensure all power is isolated elsewhere.
- Remove the 14 bolts.
- Open the door; ensure that the seal face does not get damaged.
- When closing the door clean and grease the lid screws with Loctite 8104 or similar and tighten to 10Nm.

## **14.0 WIRING DETAILS**

# EZ8110A Wiring Details

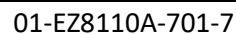
## Section 14 continued





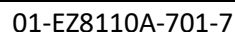
## EZ8110-01-XX Wiring Details

## Section 14 continued



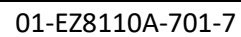
## EZ8110-02-XX Wiring Details

## Section 14 continued



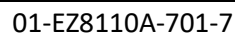
## EZ8110-03-XX Wiring Details

## Section 14 continued



## EZ8110-04-XX Wiring Details

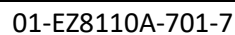
## Section 14 continued





## EZ8110-05-XX Wiring Details

## Section 14 continued



**15.0 Bill of Materials**

## EZ8110A Bill of Materials

*Section 15 continued*

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110A

Printed 20/03/25

#### EZ8110A

Zone 1 Wifi Torque Unit

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 5          | Ex Certificate |
| Status   | R          | Impact Tested  |
| Date     | 14/06/2023 | Preferred Item |
| By       | BL         | User 5         |

Rev 5: Added 1x 504-0011-02A, 504-0011-06A, 457-0024-17 replaced with 457-0010-02 (BP 19/03/25)

Rev 4: Added 1x 502-0200-22 Fuse

Rev 3: Removed 605-0120-03 and 457-0001-01 as not used (JB 29/09/2024)

Rev 2: Added x3 457-0022-99 (JB 28/08/24)

Rev 1: Replaced 1x 457-0024-00 End Stop with 1x 457-0010-03 Earth Terminal (BP 21/05/24)

| Item | P/N          | Title  | Reference(t)                | Qty |
|------|--------------|--|-----------------------------|-----|
| 1    | 352-0015-00  | Waveshare RS485 to WIFI/Ethernet Converter                             | RS485 CONVERTER             | 1   |
| 2    | 381-0001-00  | Barrier Assembly P+F K-Series Switch Amplifier Dual                    | BARRIER                     | 1   |
| 3    | 381-0027-01  | Barrier Assembly P+F K-Series SMART Transmitter Power Supply           | BARRIER                     | 1   |
| 4    | 381-6002-01  | Extronics Antenna Barrier Kit  | ANTENNA BARRIER KIT         | 1   |
| 5    | 381-6002-99  | Extronics Antenna Barrier Accessory                                    | ANTENNA                     | 1   |
| 6    | 457-0001-10  | DIN Rail Term. WEIDMULLER End Cover Beige                              | END COVER                   | 1   |
| 7    | 457-0010-02  | DIN Rail Term. WEIDMULLER Earth Terminal 6mm Pitch (4mm <sup>2</sup> ) | EARTH TERMINAL              | 2   |
| 8    | 457-0023-00  | DIN Rail Term. TE SNK Series (Ex) Double Deck 4mm <sup>2</sup> Grey    | DIN RAIL TERMINAL           | 1   |
| 9    | 457-0023-99  | DIN Rail Term. TE SNK Series (Ex) Double Deck Dark Grey End Cover      | DIN RAIL TERMINAL END COVER | 1   |
| 10   | 457-0024-00  | DIN Rail Term. TE SNK Series (Ex) End Stop                             | DIN RAIL TERMINAL END STOP  | 4   |
| 11   | 457-0024-02  | DIN Rail Term. TE SNK Series Fused                                     | DIN RAIL FUSED TERMINAL     | 2   |
| 12   | 502-0200-22  | Fuse 20x5mm Anti Surge HBC Ceramic                                     | FUSE                        | 1   |
| 13   | 504-0011-02A | Circuit Breaker ABB SN201 Series MCB                                   | MCB 2A AC IN                | 1   |
| 14   | 504-0011-06A | Circuit Breaker ABB SN201 Series MCB                                   | MCB 6A AC OUT               | 1   |
| 15   | 533-0003-03  | Siemens Logo PSU AC-DC I/P 100-240V O/P 24V/2.5A                       | PSU                         | 1   |
| 16   | 610-0070-01  | Enclosure Technor Italsmea EJB-2 Eztek Type 1                          | ENCLOSURE                   | 1   |
| 17   | 691-8110A-01 | Lid Label Black Text on White  | SN LABEL                    | 1   |
| 18   | 691-8110A-02 | FuseLabel Black Text on Yellow   | FUSE LABEL                  | 1   |
| 19   | 693-0100-00  | DIN Rail Standard Plain 35x7.5mm Zinc Plated Steel                     | DIN RAIL                    | AR  |
| 20   | 694-8110A-01 | Top Plate  | TOP PLATE                   | 1   |
| 21   | EZ8109A      | Torque DAQ   | TORQUE DAQ                  | 1   |

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## EZ8110-01-XX Bill of Materials

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110-01-XX

Printed 20/03/24

#### EZ8110-01-XX

Zone 1 Wifi Torque Unit Accessory  
Power Cable

Rev 2: Updated Ceag connector from 474-0004-02-EX to  
474-0004-01 BP 07/03/24

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 2          | Ex Certificate |
| Status   | R          | Impact Tested  |
| Date     | 20/12/2023 | User 4         |
| By       | BP         | User 5         |

| Item | P/N          | Title  | Reference(t)                | Qty |
|------|--------------|--|-----------------------------|-----|
| 1    | 474-0004-01  | Connector CEAG Ex Plug 240V 16A Blue (No Cap)                    | CONNECTOR                   | 1   |
| 2    | 574-0324-01  | Cable 3-Core 1.5mm H07RNF (10.3mm O.D)                           | CABLE (CHECK WO FOR LENGTH) | XX  |
| 3    | 597-BK01-08  | Heat Shrink General Black 2:1                                    | HEATSHRINK                  | 50  |
| 4    | 597-CL01-08  | Heat Shrink General Clear 2:1                                    | LABEL HEATSHRINK            | 180 |
| 5    | 605-1001-12  | Cable Gland Ex Accessory Nylon Sealing Washer                    | NYLON WASHER                | 1   |
| 6    | 605-1015-01  | Armoured Cable Barrier Gland Ex HAWKE ICG653 UNIV (O.D 5.5-12mm) | GLAND                       | 1   |
| 7    | 605-1016-02  | Cable Gland Accessory Ex HAWKE Gland Mounted Clamp               | GLAND CLAMP                 | 1   |
| 8    | 691-BATCH-03 | BATCH# Printed Heatshrink Black on White                         | LABEL                       | 2   |

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## EZ8110-02-XX Bill of Materials

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110-02-XX

Printed 20/03/25

#### EZ8110-02-XX

Zone 1 Wifi Torque Unit Accessory  
Loadcell Cable

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 3          | Ex Certificate |
| Status   | R          | Impact Tested  |
| Date     | 20/12/2023 | Preferred Item |
| By       | BP         | User 5         |

Rev 3: Updated to meet Norsok Standards (BP 27/01/25)  
574-0435-01 replaced with 574-0204-01 (cable OD to be confirmed by C.Sols)  
432-03E0-02 replaced with 432-03E0-02A  
432-03E9-03 replaced with 432-03E9-04

| Item | P/N          | Title  | Reference(t)                 | Qty |
|------|--------------|--|------------------------------|-----|
| 1    | 432-03E0-02A | LEMO 3E Receptacle IP68 4-Pole Female Solder                                 | CONNECTOR                    | 1   |
| 2    | 574-0204-01  | Cable 2-Core (1xPair) 0.75mm <sup>2</sup> RFOU(I) S1/S5 Black/Gry (ø11.13mm) | CABLE (CHECK WO FOR LENGTH)  | XX  |
| 3    | 597-BL01-08  | Heat Shrink General Blue 2:1   | IS HEATSHRINK                | AR  |
| 4    | 597-CL01-09  | Heat Shrink General Clear 2:1  | LABEL HEATSHRINK             | AR  |
| 5    | 605-1001-12  | Cable Gland Ex Accessory Nylon Sealing Washer                                | USE WITH GLAND FOR IP RATING | 1   |
| 6    | 605-1015-01  | Armoured Cable Barrier Gland Ex HAWKE ICG653 UNIV (O.D 5.5-12mm)             | GLAND                        | 1   |
| 7    | 605-1016-02  | Cable Gland Accessory Ex HAWKE Gland Mounted Clamp                           | GLAND MOUNTING CLAMP         | 1   |
| 8    | 691-BATCH-03 | BATCH# Printed Heatshrink Black on White                                     | LABEL                        | 2   |

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## EZ8110-03-XX Bill of Materials

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110-03-XX

Printed 20/03/25

#### EZ8110-03-XX

Zone 1 Wifi Torque Unit Accessory  
Encoder Cable

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 3          | Ex Certificate |
| Status   | R          | Impact Tested  |
| Date     | 20/12/2023 | Preferred Item |
| By       | BP         | User 5         |

Rev 3: Updated to meet Norsok Standards (BP 27/01/25)  
574-0435-01 replaced with 574-0204-01 (cable OD to be confirmed by C.Sols)  
432-03E0-01 replaced with 432-03E0-01A  
432-03E9-03 replaced with 432-03E9-04

| Item | P/N          | Title  | Reference(t)                 | Qty |
|------|--------------|--|------------------------------|-----|
| 1    | 432-03E0-01A | LEMO 3E Receptacle IP68 3-Pole Female Solder                                 | CONNECTOR                    | 1   |
| 2    | 574-0204-01  | Cable 2-Core (1xPair) 0.75mm <sup>2</sup> RFOU(i) S1/S5 Black/Gry (ø11.13mm) | CABLE (CHECK WO FOR LENGTH)  | XX  |
| 3    | 597-BL01-08  | Heat Shrink General Blue 2:1   | IS HEATSHRINK                | AR  |
| 4    | 597-CL01-09  | Heat Shrink General Clear 2:1  | LABEL HEATSHRINK             | AR  |
| 5    | 605-1001-12  | Cable Gland Ex Accessory Nylon Sealing Washer                                | USE WITH GLAND FOR IP RATING | 1   |
| 6    | 605-1015-01  | Armoured Cable Barrier Gland Ex HAWKE ICG653 UNIV (O.D 5.5-12mm)             | GLAND                        | 1   |
| 7    | 605-1016-02  | Cable Gland Accessory Ex HAWKE Gland Mounted Clamp                           | GLAND MOUNTING CLAMP         | 1   |
| 8    | 691-BATCH-03 | BATCH# Printed Heatshrink Black on White                                     | LABELS                       | 2   |

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## EZ8110-04-XX Bill of Materials

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110-04-XX

Printed 20/03/25

#### EZ8110-04-XX

Zone 1 Wifi Torque Unit Accessory  
Power AC Out Cable

Rev 3: Updated to meet Norsok Standards (BP 27/01/25)  
574-0324-01 replaced with 574-0304-01  
605-1015-01 replaced with 605-1015-02

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 3          | Ex Certificate |
| Status   | R          | Impact Tested  |
| Date     | 07/03/2024 | Preferred Item |
| By       | BP         | User 5         |

| Item | P/N            | Title   | Reference(t)                | Qty |
|------|----------------|---|-----------------------------|-----|
| 1    | 474-0004-02-EX | Connector CEAG Ex Coupler 240V 16A Blue (c/w CAP)                     | CONNECTOR                   | 1   |
| 2    | 574-0304-01    | Cable 3-Core 1.5mm <sup>2</sup> RFOU P1/P8 (0.6/1kV) Black (ø13.33mm) | CABLE (CHECK WO FOR LENGTH) | XX  |
| 3    | 597-BK01-09    | Heat Shrink General Black 2:1   | HEATSHRINK                  | 50  |
| 4    | 597-CL01-09    | Heat Shrink General Clear 2:1   | LABEL HEATSHRINK            | 180 |
| 5    | 605-1001-12    | Cable Gland Ex Accessory Nylon Sealing Washer                         | NYLON WASHER                | 1   |
| 6    | 605-1015-02    | Armoured Cable Barrier Gland Ex HAWKE ICG653 UNIV (O.D 9.5-16mm)      | GLAND                       | 1   |
| 7    | 605-1016-02    | Cable Gland Accessory Ex HAWKE Gland Mounted Clamp                    | GLAND CLAMP                 | 1   |
| 8    | 691-BATCH-03   | BATCH# Printed Heatshrink Black on White                              | LABEL                       | 1   |

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## EZ8110-05-XX Bill of Materials

# EZ8110A O.I.M

## Section 15 continued

### Parts List for Assembly P/N: EZ8110-05-XX

Printed 06/02/25

#### EZ8110-05-XX

Zone 1 Wifi Torque Unit Accessory  
Power SOV Cable

|          |            |                |
|----------|------------|----------------|
| Type     | CAT        | Temp. Rating   |
| Revision | 1          | Ex Certificate |
| Status   | U          | Impact Tested  |
| Date     | 07/03/2024 | Preferred Item |
| By       | BP         | User 5         |

Rev 1: Updated to meet Norsok Standards (BP 27/01/25)  
574-0435-01 replaced with 574-0204-01 (cable OD to be confirmed by C.Sols)

| Item | P/N          | Title  | Qty | Reference(t)                |
|------|--------------|--|-----|-----------------------------|
| 1    | 474-0003-02  | Connector CEAG Ex Socket Coupler 24V 16A Purple (c/w Cap)                    | 1   | CONNECTOR                   |
| 2    | 574-0204-01  | Cable 2-Core (1xPair) 0.75mm <sup>2</sup> RFOU(i) S1/S5 Black/Gry (ø11.13mm) | XX  | CABLE (CHECK WO FOR LENGTH) |
| 3    | 597-BK01-08  | Heat Shrink General Black 2:1  | 50  | HEATSHRINK                  |
| 4    | 597-CL01-09  | Heat Shrink General Clear 2:1  | 180 | LABEL HEATSHRINK            |
| 5    | 605-1001-12  | Cable Gland Ex Accessory Nylon Sealing Washer                                | 1   | NYLON WASHER                |
| 6    | 605-1015-01  | Armoured Cable Barrier Gland Ex HAWKE ICG653 UNIV (O.D 5.5-12mm)             | 1   | GLAND                       |
| 7    | 605-1016-02  | Cable Gland Accessory Ex HAWKE Gland Mounted Clamp                           | 1   | GLAND CLAMP                 |
| 8    | 691-BATCH-03 | BATCH# Printed Heatshrink Black on White                                     | 2   | LABEL                       |

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## 16.0 MODIFICATION HISTORY

| Date     | Revision | Description        | Prepared By | Authorised By |
|----------|----------|--------------------|-------------|---------------|
| 17/04/25 | 7        | Updated Cert Label | BP          | RH            |

**17.0 MANUFACTURE CONTACT INFORMATION**

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# EZ8110A O.I.M

End of Manual