

# Technical Data

## HYTEK TANK ALARM



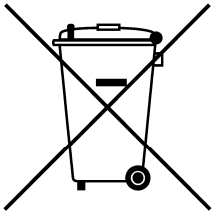
**Please read carefully before commencing installation**

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## **ENVIRONMENTAL INFORMATION**



European Directives 2012/19/EU requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product must be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities.

## **IMPORTANT WARNING NOTES**

1. The Hytek Tank Alarm **MUST NOT** be used to monitor petrol or other highly flammable liquids with a flash point below 55°C.
2. It is designed for use with diesel, gas oil, water, hydraulic oil and heating oil. Can be used with Anti-freeze or Adblue if optional stainless steel float switch assembly is fitted.
3. It must not be sited adjacent to a petrol dispenser or in any other hazardous zone.
4. It must not be sited below ground level.
5. Installation of this equipment should be carried out by a qualified fuel installation engineer.
6. The installation must conform to all relevant electrical and local authority regulations and standards.
7. Only Hytek float switches can be used with the Hytek alarm.
8. This product must not be used if it is damaged.

## **PRODUCT DESCRIPTION**

The Hytek Tank Alarm is designed to provide visual and audible alarms whenever a predetermined level in a storage tank is reached.

The system consists of a maximum of three-weighted float switches and an enclosure weatherproof to an IP55 standard which contains the visual and audible alarms and the electronic PCB.

# **SPECIFICATION**

## **MAINS VERSION**

- 230V 3-channel alarm.
- IP55 weatherproof enclosure, for outside mounting.
- Each channel can be used as an overflow, low level or bund alarm.
- High power 90db alarm sounder.
- High visibility flashing zenon beacon.
- Test button checks float switches as well as beacon & sounder.

## **BATTERY VERSION**

- Battery 3 channel alarm.
- Each channel can be used as an overflow, low level or bund alarm.
- High power 90db alarm sounder.
- No zenon beacon, but individual channel LED's.
- Test button checks float switches as well as batteries & sounder.
- Battery life depends on number of test & alarm incidents.

# **INSTALLATION INSTRUCTIONS**

## **MOUNTING**

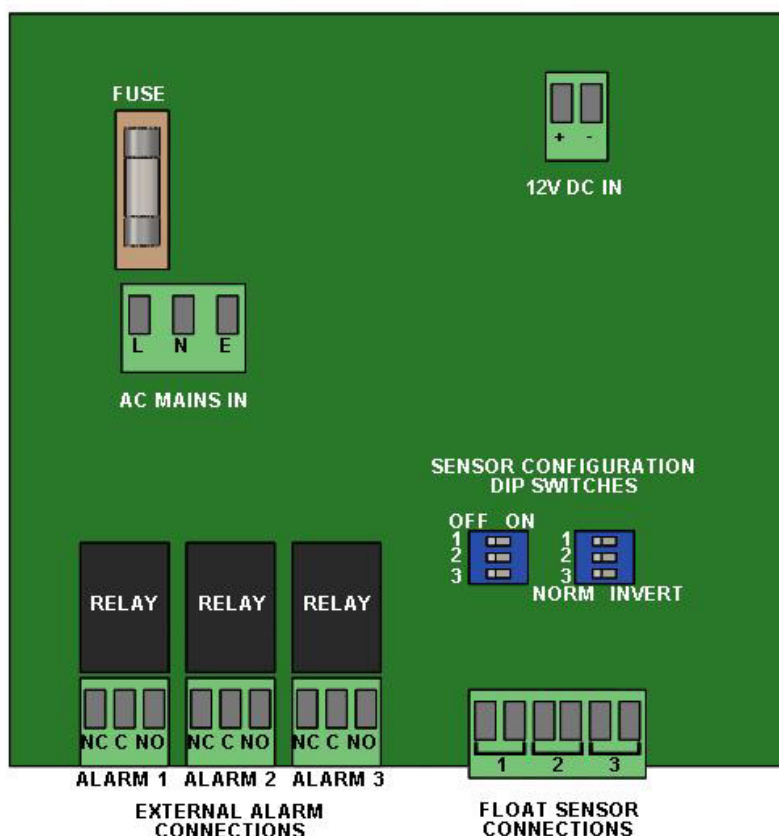
The float switch assembly is supplied with 5 metres of 2-core PUR fuel resistant cable that may be extended, as necessary, up to 100 metres.

1. Remove front display lid from alarm box and disconnect ribbon cable. Place the lid somewhere clean and safe.
2. Using wall-mounting bracket, fix alarm box into position.
3. Self-adhesive product labels are supplied and are to be fixed alongside the corresponding channel LED indicator on the front of the alarm unit.

## **POWER SUPPLY**

4. The TA2.POW is designed to have a continual 230V AC supply fused at a rating of 6 amps max. The TA2.POW.110 is designed to have continual 110V AC supply fused at a rating of 6 amps max. The TA2.BAT has an internal battery power supply. See Connections diagram.

## CONNECTIONS DIAGRAM



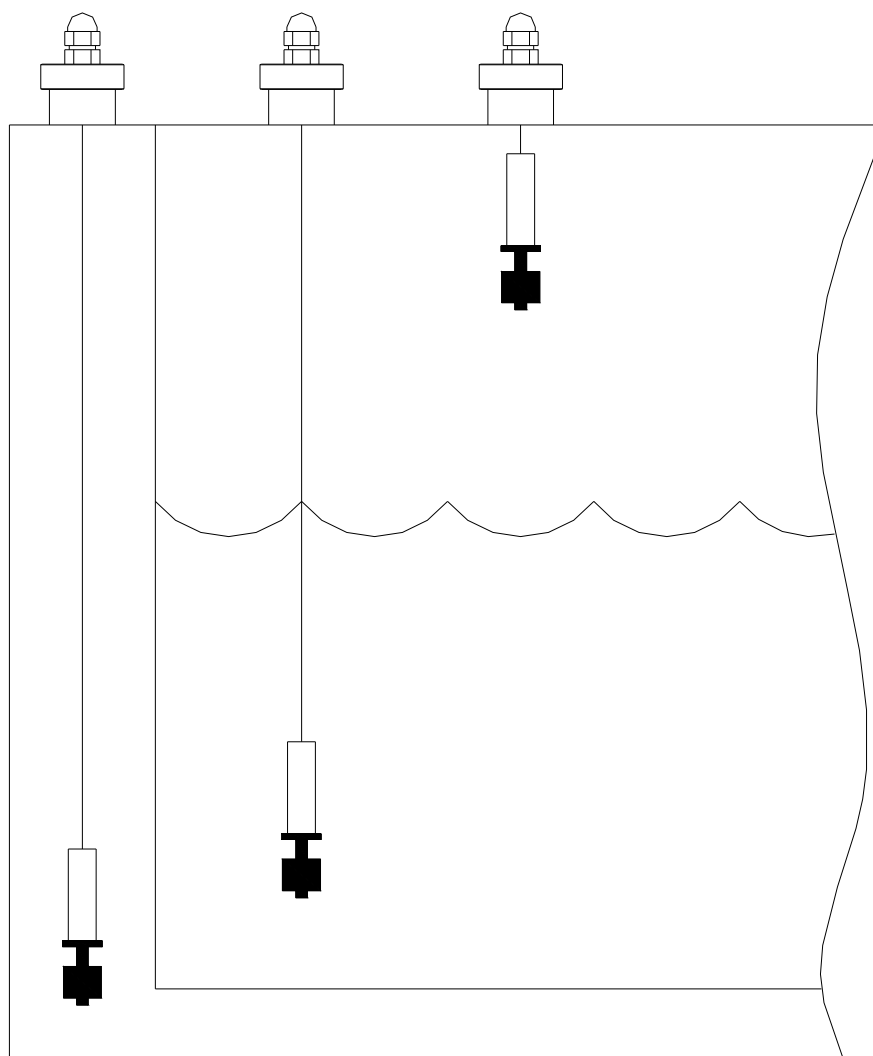
## FLOAT SWITCH INSTALLATION

5. To ensure the float switch is positioned at the correct depth in the tank, locate the gland, fitted to the gland plate, at the appropriate point along the float switch cable.

Carefully install float switch through a 30mm hole in the top of the tank, ensuring the sealing gasket is in place. Secure the gland plate to the tank using two self-tapping screws (not supplied). See Float switch installation diagram (page 3) Alternatively, for steel tank installations, an optional 1 1/2" brass cap (Hytek order ref - TA.CAP) can be used.

NB: Installation of the float switch should be as far away from the fill point of the tank as possible.

## FLOAT SWITCH INSTALLATION DIAGRAM



## FLOAT SWITCH ACTIVATION AND CONFIGURATION

6. Connect the float switch cables to the float switch terminals inside the alarm box as per connections diagram.
7. After connecting the desired amount of float switches, activate the corresponding channels by setting the appropriate channel activation dipswitch to "ON" position. See Dip switch settings diagram.

**NB: If a channel activation dipswitch is in the "OFF" position and a float switch connected to the corresponding terminals is operated, the alarm will not function.**

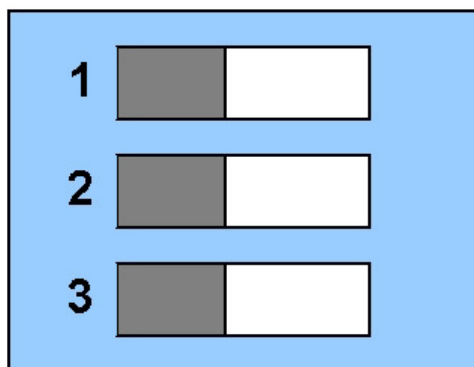
8. Set the high/low level dipswitches to the appropriate position (NORM = high level activation, INVERT = low level activation) to enable the corresponding float switches to detect either a high or low-level situation. See Dip switch settings diagram.

## DIPSWITCH SETTINGS DIAGRAM

### CHANNEL ACTIVATION

**OFF**

**ON**



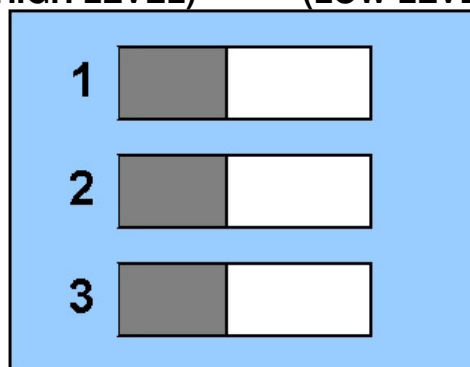
### FLOAT SWITCH SETTING

**NORM**

**INVERT**

(HIGH LEVEL)

(LOW LEVEL)



## EXTERNAL RELAY OUTPUTS

9. Where external output relays have been fitted connect external cabling as per connections diagram. The relay contacts are rated at 250 volts, 10 amps max.

NB: The relays are a switch only and do not offer a power source for any external equipment. The relays **MUST NOT** be used to activate any equipment such as fuel pumps or safety valves.

## COMPLETION OF INSTALLATION

10. Install batteries provided (TA2.BAT & TA2.BATR Only).
11. Refit lid to alarm box ensuring that ribbon cable is reconnected to the main PCB and the lid seal is in place.
12. Switch on power. The green "POWER" LED should illuminate (TA2.POW, TA2.POWR, TA2.POW.110 & TA2.POWR.110 only).

## **OPERATION**

### **POWER STATUS**

**MAINS VERSION:** The Power LED will remain illuminated to indicate that there is mains power to the unit

**BATTERY VERSION:** The Battery LED will flash every 2 seconds to indicate that there is battery power to the unit. If the battery charge is too low then the sounder will activate intermittently to indicate this.

### **ALARM CONDITION**

When a high or low-level alarm condition occurs the corresponding channel LED on the tank alarm lid is illuminated and the sounder/beacon will activate. The external relay will also be activated.

### **FLOAT SWITCH FAULT INDICATION**

If any of the channel LEDs flashes repeatedly then this indicates a fault with the float switch.

### **ALARM MUTE**

Pressing the mute button for 1.5 seconds will silence the sounder and stop the beacon flashing when an alarm condition is occurring. This will not deactivate any relays (if fitted). The relays will only be de-activated when float switch returns to its normal position.

*If the mute button is not depressed the sounder will silence after 20 minutes leaving the beacon and channel LED on.*

The channel LED will remain on until the alarm condition has been rectified (float switch returns to its normal position).

### **ALARM TEST**

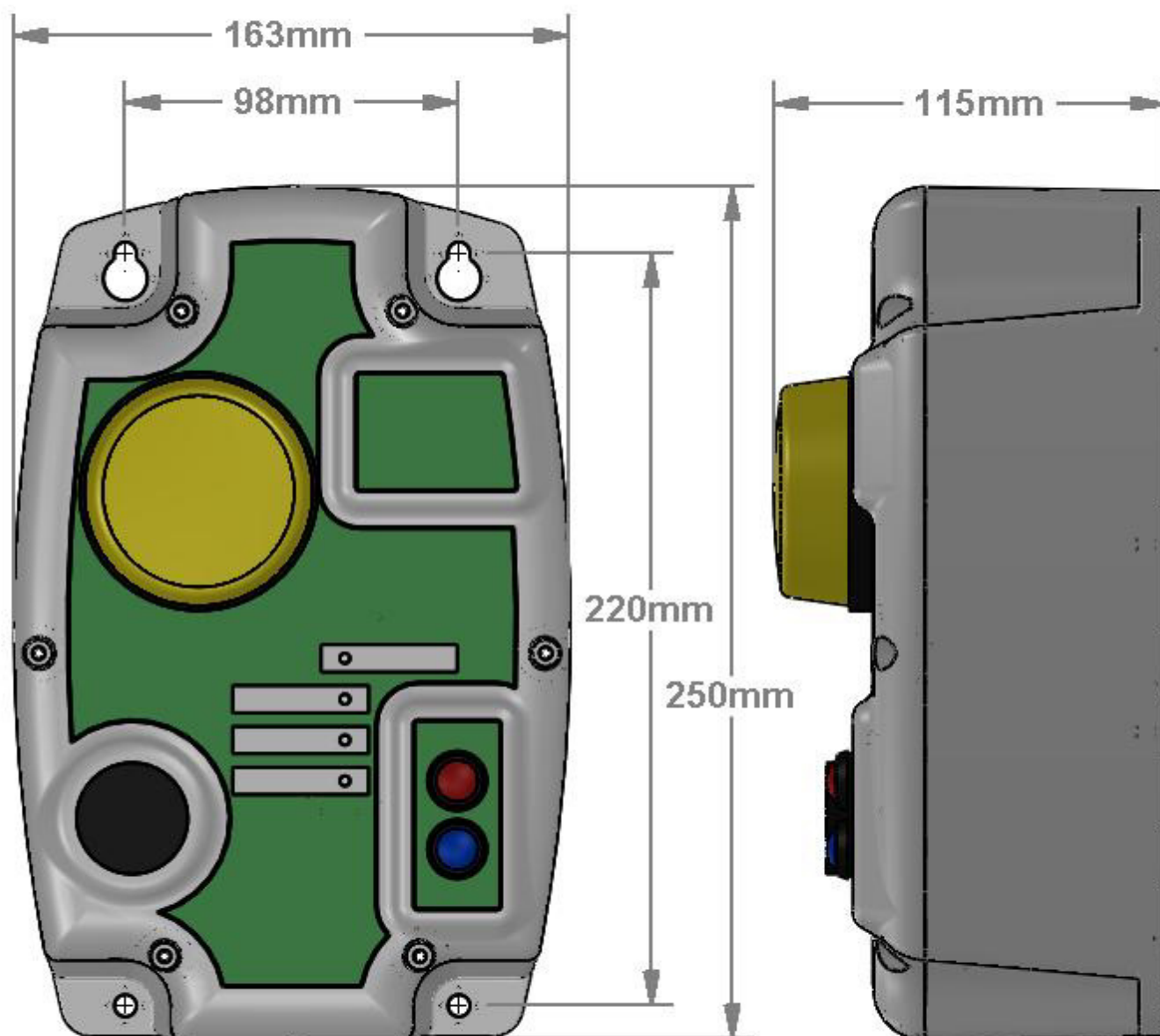
To test the Tank Alarm, push and hold the test button on the lid. If the Tank Alarm is functioning correctly the sounder should activate, the beacon will flash (if fitted) and all activated channel LEDs will illuminate.

If any of the channel LEDs flashes repeatedly then this indicates a fault with the float switch.

***Battery version:*** *If no sounder is heard and no channel LED's illuminate, check batteries and change as necessary.*

**NB:** Always push the Tank Alarm test button before filling the tank.

## **FITTING DIMENSIONS**





## **PARTS LIST**

### **HYTEK TANK ALARM PARTS LIST**

<b>PART NO.</b>	<b>EXPLODED VIEW REF</b>	<b>PART DESCRIPTION</b>
1 ▼	TA2.LID	Tank alarm lid with all components - MAINS
▶	TA2.LID.BAT	Tank alarm lid with all components - BATTERY
2	TA.BEACON	Tank alarm amber beacon
3 ▼	TA.LABM2	Display lid label (mains)
▶	TA.LABB2	Display lid label (battery)*
4	TA.SOUND	Tank alarm sounder
5	TC.AT	Tank alarm test button
6	TC.AS	Tank alarm mute button
7	TA.GLND	Cable gland PG7
8	TA.BOX2	Tank alarm box (base only)
9 ▼	TA.PCBMAINSR	Alarm PCB 230Vac with Relays
▶	TA.PCBMAINS	Alarm PCB 230Vac*
▶	TA.PCB.110R	Alarm PCB 110Vac with Relays*
▶	TA.PCB.110	Alarm PCB 110Vac*
▶	TA.PCBBATTR	Alarm PCB 6Vdc Battery with Relays*
▶	TA.PCBBATT	Alarm PCB 6Vdc Battery*
10	TA.RELAY	10 amp relay (3 per unit)
11	TA.CONM	Plug connector (230/110v mains)
12	TA.CONR	Plug connector (relays)
13	TA.CONF	Plug connector (floats)
14	BLANK.12.7	12.7mm hole blank *
15	TA.LABP	Product label (9 labels per sheet) *
16	TA.PCBDISP	Alarm display PCB*

\*not shown

## **SPARES**

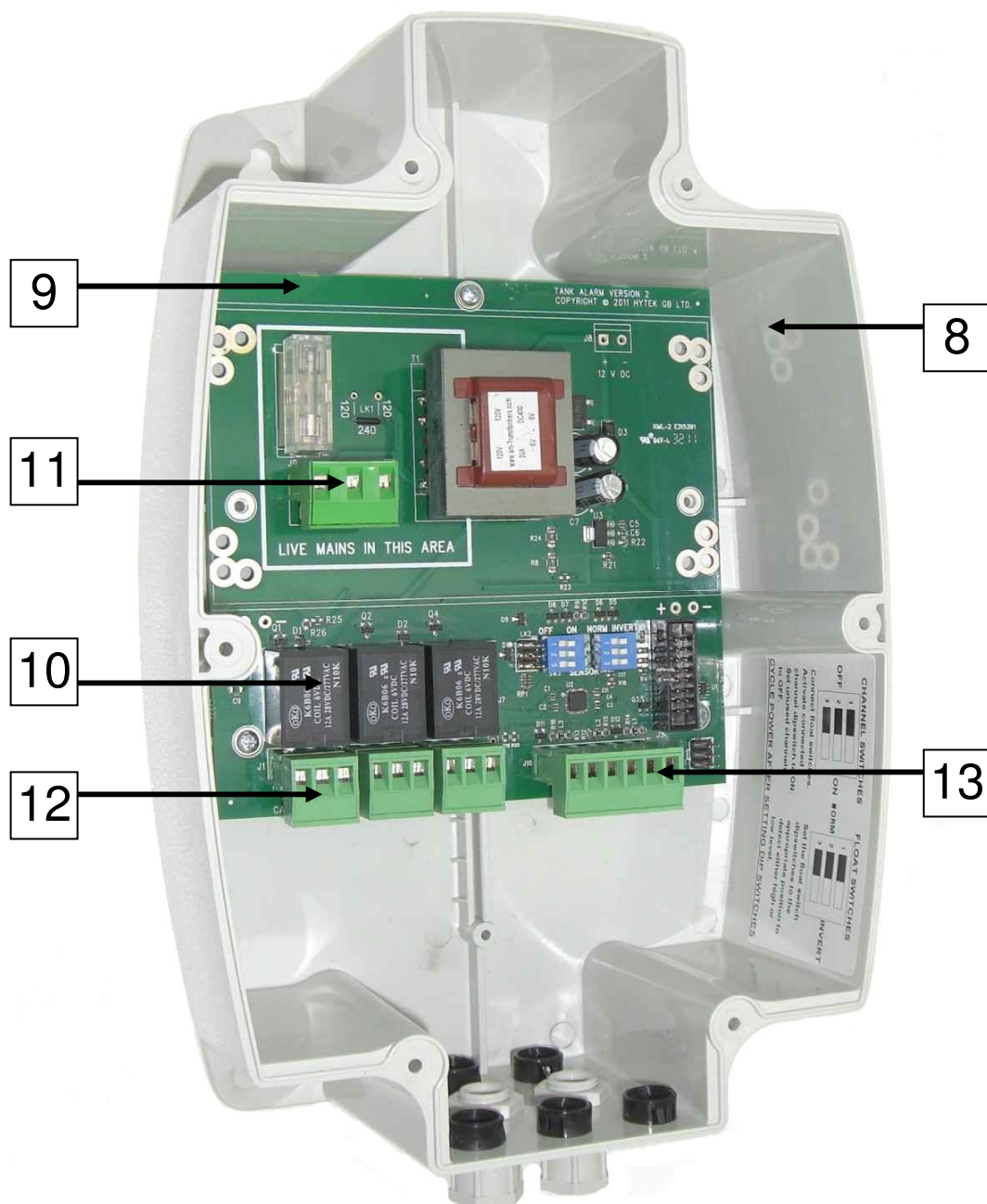
<b>PART NUMBER</b>	<b>DESCRIPTION</b>
TA.F5	5m universal float switch
TA.F10	10m universal float switch
TA.F5.SS	5m stainless steel float switch
TA.CAP	1 1/2" threaded brass cap for steel tanks
TA.CABLE	Extra cable to extend float switches
TA.CABEXT	Use to join extra cable - IP68 rated
TA.BATTERY	Type D battery (4 per unit)

## OUTSIDE VIEW



TA2.POW (230V AC) - SHOWN

## INSIDE VIEW



**TA2.POWR (230V AC) - SHOWN**

# **E.U. DECLARATION OF CONFORMITY**

**HYTEK**  
FUEL & LUBRICATION  
EQUIPMENT

Company Name: **Hytek (GB) Ltd**

Address: **Delta House, Green Street. Elsenham,  
Bishops Stortford, Hertfordshire, CM22 6DS, UK**

Date of Issue: **7<sup>th</sup> March 2017**

Equipment Details: **Hytek Tank Alarm**  
TA2.POW, TA2.POWR, TA2.POW.110, TA2.POWR.110, TA2.BAT,  
TA2.BATR

Applicable Directives:  
& Standards **2014/30/EU EMC Directive**  
EN 61326-1:2013  
Electromagnetic compatibility (EMC) – Group 1, Class B Eq. (Emissions)  
EN 61326-1:2013  
Electromagnetic compatibility (EMC) – Industrial Environment (Immunity)

**2014/35/EU Low Voltage Directive**

**2006/42/EC Machinery Directive**

**2012/19/EU Waste Electrical & Electronic Equipment Regulations**

**2011/65/EU Restriction of Hazardous Substances Directive (RoHS2)**

Declaration Number: **EU102/3**

On behalf of the above named company, I declare under our sole responsibility that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.



Clive Wellings,

Technical Manager

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