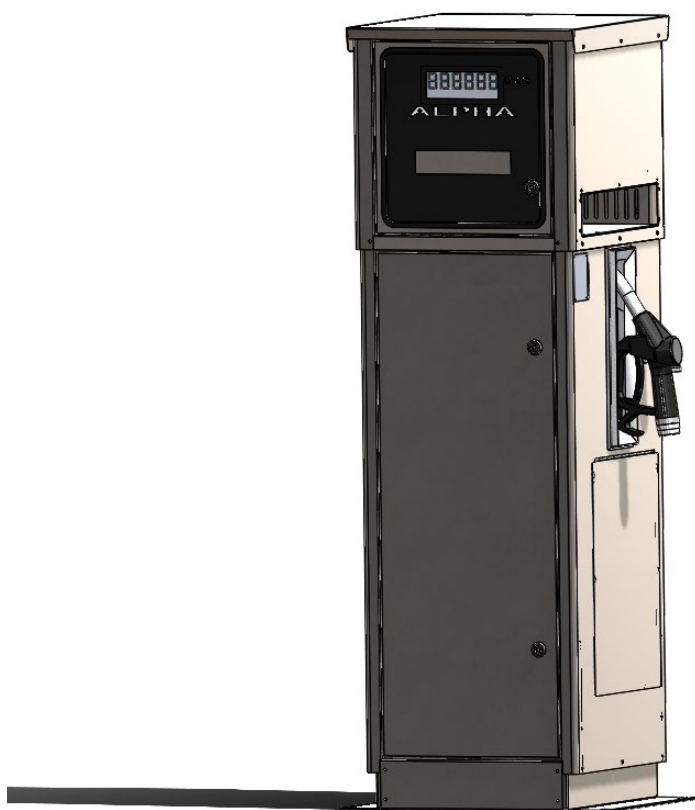


Technical Data

ALPHA EX & MIR

APPROVED PETROL PUMP



Applies to the following models **only**:

-ALPHA/50P -ALPHA/70P

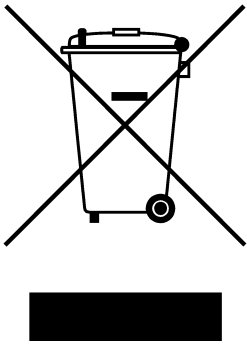
Please read carefully before commencing installation

Registered Office: HYTEK (GB) LIMITED, Delta House, Green Street, Elsenham, Bishop's Stortford
CM22 6DS UK. Registered in England No. 1915382

Tel: +44 (0) 1279 815 600 Fax: +44 (0) 1279 812 978 email: info@hytekgb.com

Web: www.hytekgb.com

ENVIRONMENTAL INFORMATION



UK Regulation S1 2013 3113 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.

PRODUCT DESCRIPTION

This pump is ATEX certified to dispense petrol or other liquids classed as category 1, 2 or 3 in accordance with European Regulation No. 1272/2008. It bears the following certification marking and number:

MANUFACTURED TO: EN13617-1
CERTIFICATE NO: CML 17ATEX9254



IMPORTANT WARNING NOTES

1. On above ground storage tanks an angle check valve fitted with the appropriate spring or pressure regulating valve must be fitted at the tank outlet to prevent loss of fuel under gravity in the event of vandalism or accidental damage.
2. This pump must only be used to dispense petrol or other liquids classed as category 1, 2 or 3 in accordance with European Regulation No. 1272/2008.
3. Installation of this equipment and its associated tank, pipe work and fittings should only be carried out by qualified fuel installation engineers.

4. The installation must be carried out in accordance with the requirements of EN 60079-14 the latest relevant electrical and local authority regulations and standards.
5. It must not be used with other liquids or for other applications. We will accept no warranty claims or liability if it is used for other liquids or applications.

CALIBRATION

The meter on this pump unit must be calibrated electronically to ensure accuracy and reliability.

INSTALLATION INSTRUCTIONS

1. Check you have the following items:
 - 1 off Alpha pump
 - 1 off delivery hose
 - 1 off front door key
2. Open the front panels using the key provided.
3. Remove the rear panels, if necessary, and store safely.

MOUNTING

4. Bolt the pump to a raised firm level foundation, at least 150mm in height, by means of the four 14 mm diameter-mounting holes provided. Locate the drip tray between the pump base and the foundation with the lips around the holes facing upwards.

NB: When the drip tray is fitted to the pump it must be sealed to its foundation, with a suitable elastomeric substance, to prevent leaked fuel "wicking" back underneath the pump. To maintain the environmental integrity of the drip tray any possible leak path through the pump mounting holes or the cable and pipe entry holes must also be sealed.

PIPEWORK

5. Connect the 1 1/2" diameter pipe from the tank to the suction inlet flexible connector of the pump. The inlet thread of the flexible connector flange is 1 1/2" BSP taper female. Seal the joints with a suitable thread sealing compound. The pipe work must be sealed to the drip tray (if fitted) to ensure no leaking fuel can flow underground. An alternative pipe work entry point, for above ground pipe work, is provided at the rear of the pump base. Push out the plastic cover plate if required.

NB: On above ground tanks an angle check valve fitted with the appropriate spring or an anti-syphon valve must be fitted in the suction line to prevent spillage or leakage in the event of damage.

6. Connect the delivery hose and selected ATEX approved nozzle to the pump outlet in accordance with the instructions supplied with the individual components. Ensure the nylon hose-sealing washers are in place on the hose end. It should be hand tight plus a quarter turn.

ELECTRICAL

7. Remove the covers from the junction box.
8. Connect a constant 220/240V AC 50 Hz supply, fused at 16 amps, to the terminal block in the junction box as shown on the wiring details diagram.

NB: The Alpha pump must have a continual 220/240V AC supply, even when not in use

9. If the Alpha is to be operated in conjunction with a key/card system, remove the link in the junction box (shown on the Alpha Installation Wiring Diagram) and connect so that the control system makes and breaks the connection.

Make connection - Pump on
Break connection - Pump off

Alternatively remove the link and connect a switched live supply (230V AC 16A max.) to terminal 4 (shown on the Alpha Installation Wiring Diagram)

Live supply switched on - Pump on
Live supply switched off - Pump off

10. A pulse output for connection to key/card systems is available from the separate terminals located in the junction box. This is a passive contact giving 10 or 100 pulses per litre. Contact ratings are as follows:

Maximum current - 0.25 amps
Maximum voltage - 50 volts
Maximum power - 5 VA

11. Ensure all the terminal screws are tight and replace the junction box covers.

INSTRUCTIONS FOR USE

1. Remove the nozzle from the holster.
2. Place the nozzle spout in the fuel tank.
3. Squeeze the nozzle trigger to dispense fuel.

On completion of the delivery release the trigger and replace the nozzle in the holster.

MAINTENANCE

The Alpha should require minimum maintenance in normal regular use, but as with all mechanical apparatus regular servicing will prolong its life and ensure maximum efficiency & reliability.

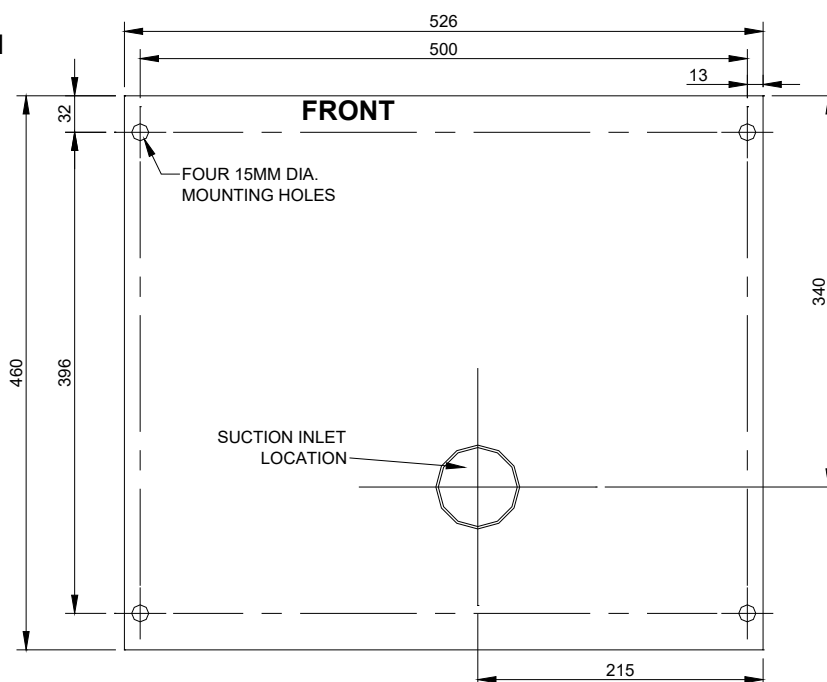
The following should be carried out every 12 months or 1 million litres whichever ever comes first.

- **Isolate power supply**
- **Inspect & clean or replace pump filter**
- **Inspect & clean or replace nozzle filter**
- **Inspect & replace if necessary the V-belt**
- **Check motor pulley grub screw is tight**
- **Re-calibrate electronic display**

ALPHA BASE AND SUCTION CONNECTION DIAGRAMS

BASE VIEW FROM ABOVE

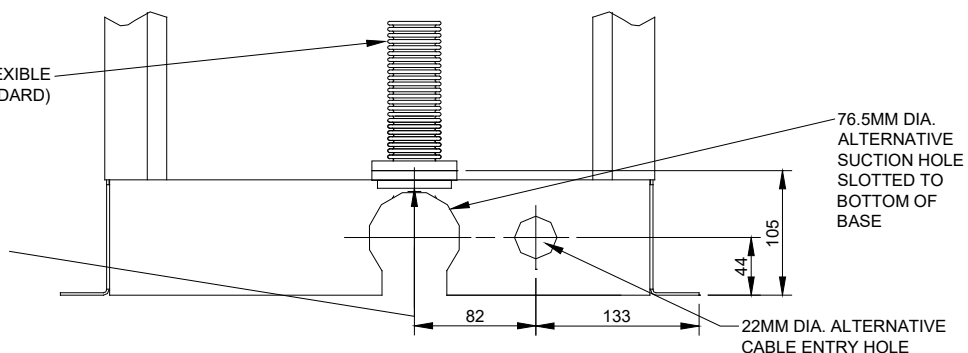
ALL DIMENSIONS IN MM



REAR VIEW

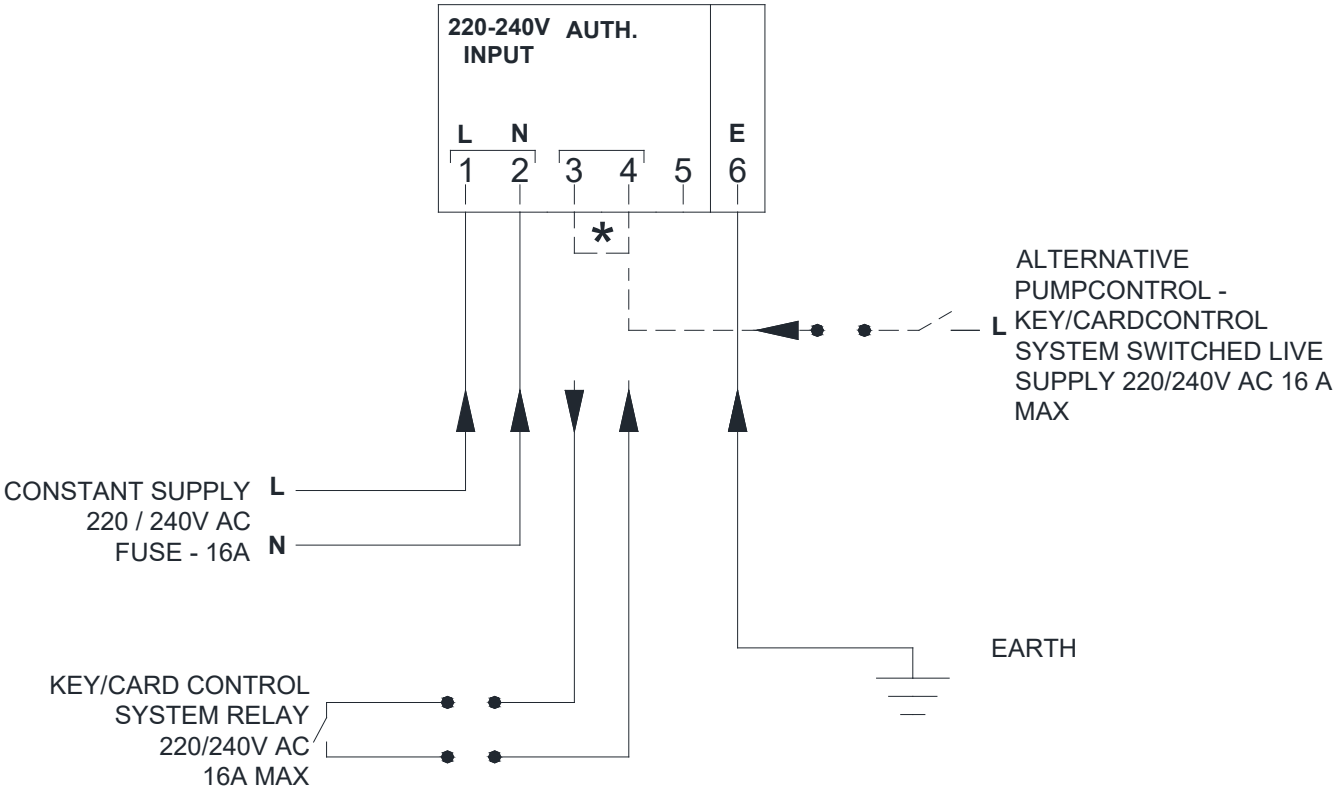
1 1/2" STAINLESS STEEL FLEXIBLE
CONNECTOR (SUPPLIED AS STANDARD)

1 1/2" BSP TAPER FEMALE
THREADED STANDARD
TRIANGULAR SUCTION
FLANGE ALIGNED
WITH SUCTION HOLE
IN BASE



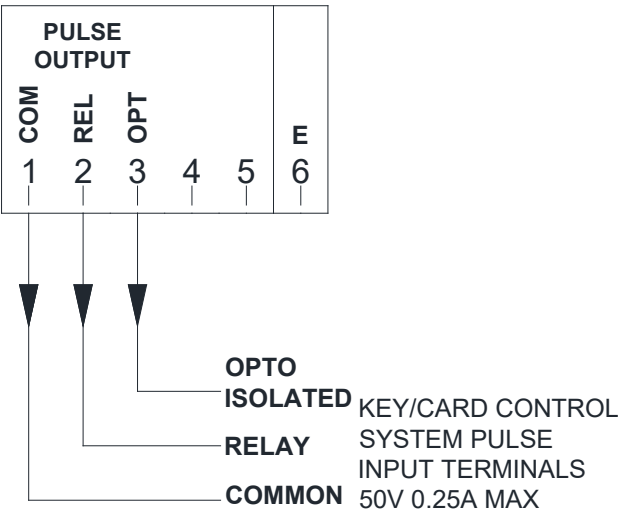
ALPHA INSTALLATION WIRING DIAGRAM

MAINS / 230VAC JUNCTION BOX CONNECTIONS



* SUPPLIED WITH LINK FITTED BETWEEN TERMINALS 3 AND 4.
REMOVE LINK FOR REMOTE KEY/CARD CONTROL

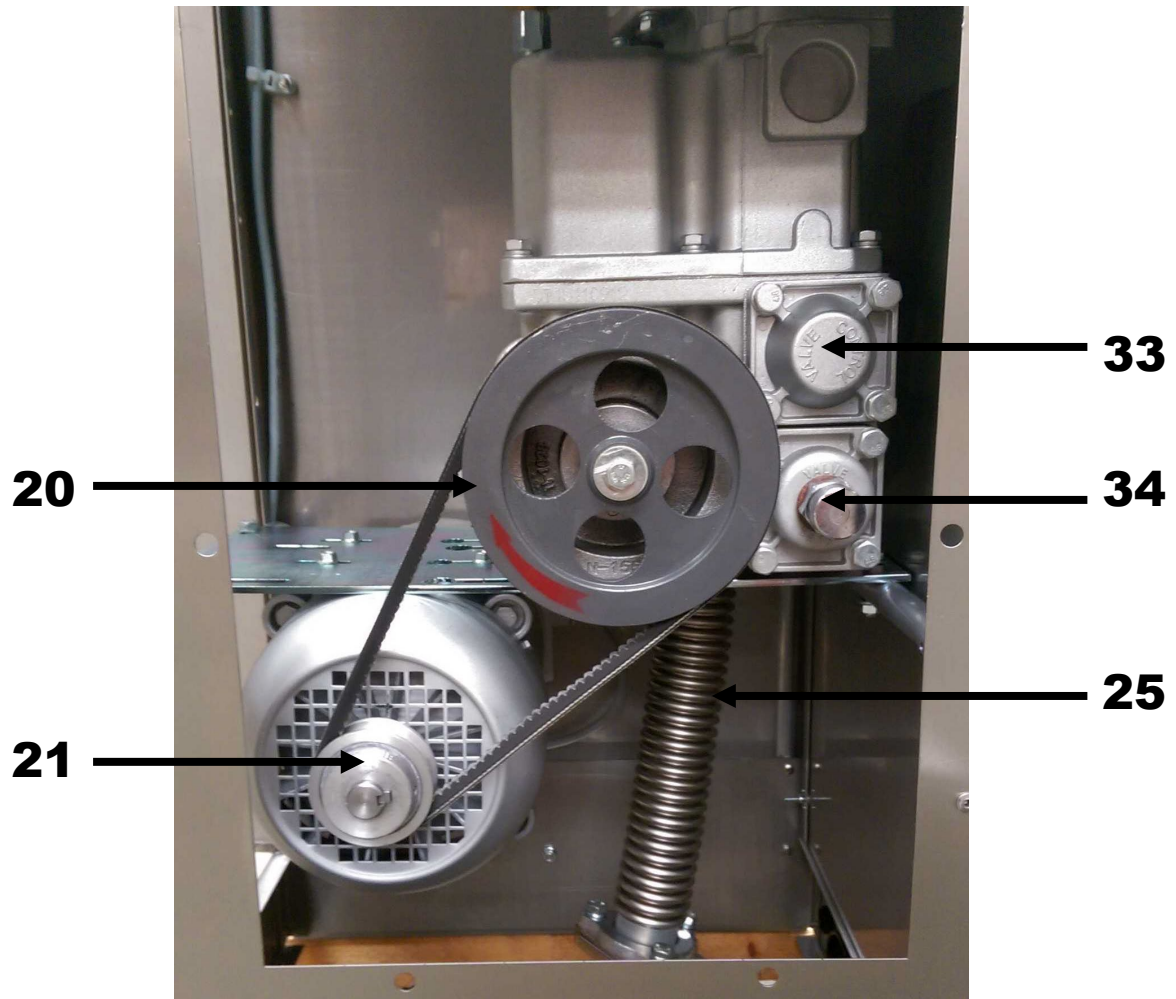
LOW VOLTAGE / SIGNAL JUNCTION BOX CONNECTIONS



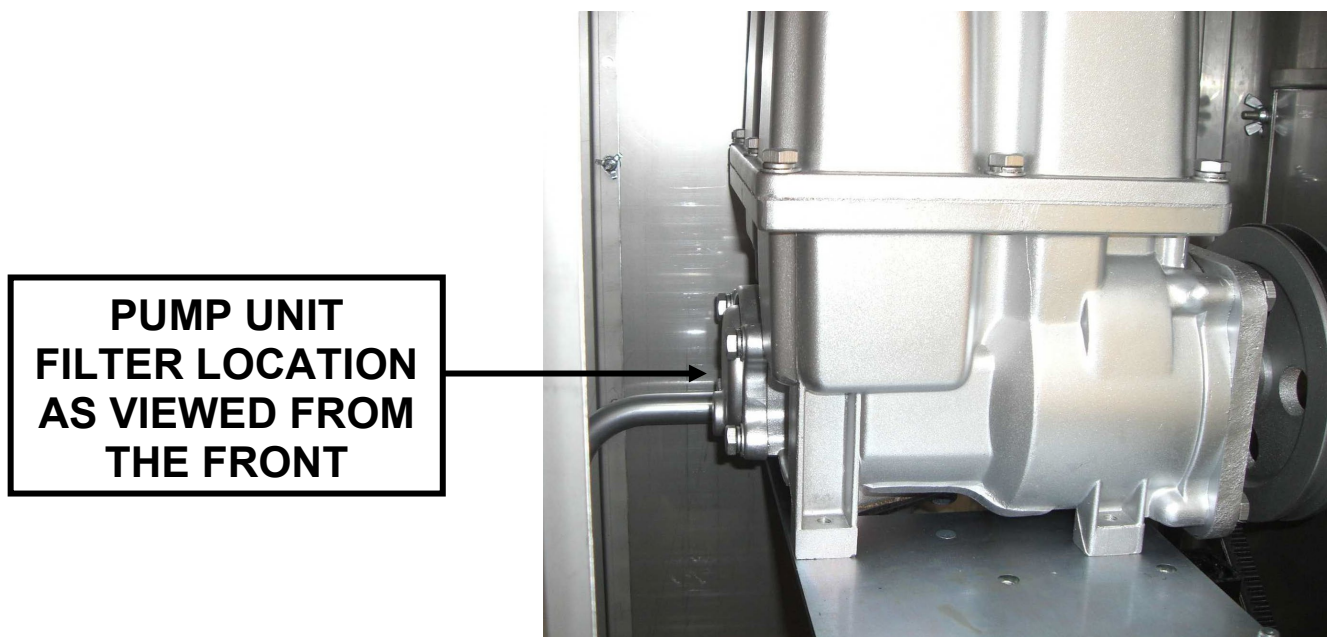
ALPHA EXTERNAL DIMENSIONS



ALPHA SIDE ACCESS PANEL VIEW



ALPHA PUMP UNIT FILTER LOCATION



ELECTRONIC DISPLAY/CALCULATOR

FEATURES

- 6-digit backlit Main LCD display: Up to 9999.99 or 99999.9 litres per delivery
- 8-digit backlit totaliser LCD display: Up to 99999999 litres
- Display retained during power failure

OPERATION

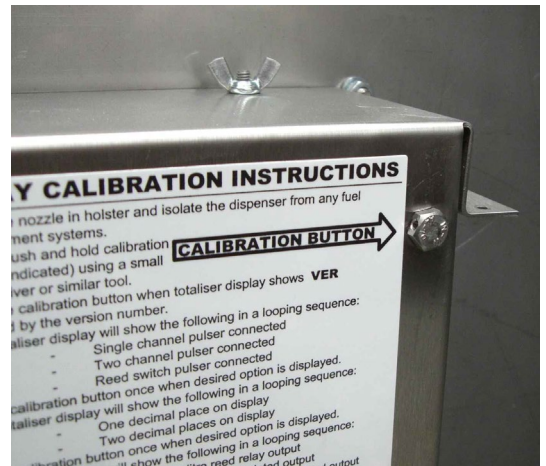
- Stand-by mode: Upper line of LCD display shows previous delivery
Lower line of LCD display shows ongoing total
- Nozzle removed: Upper line shows "all eights" then "all zeros"
Lower line shows "FUELLING"
Pump starts
- Fuel drawn: Upper line shows litres dispensed
Lower line shows "FUELLING"
- Nozzle Returned: Pump stops
Upper line of LCD display shows previous delivery
Lower line of LCD display shows ongoing total

CALIBRATION PROCEDURE - (MUST BE CARRIED OUT TO ENSURE PUMP ACCURACY)

1. Ensure the nozzle is stowed in the holster and the dispenser is isolated from any fuel management systems.



2. Remove calibration button cover bolt from rear of display / calculator housing (if fitted).



3. Gently push and hold the calibration button using a small screwdriver or similar tool.

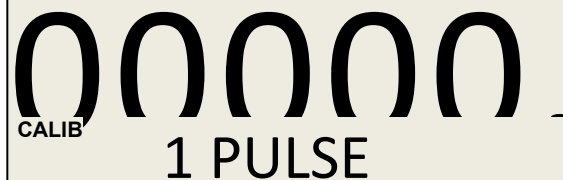


4. Release the calibration button when the totaliser display shows **VER** followed by the version number on the lower line of the display.



CALIB VER 4.00

5. The lower line will show the following in a looping sequence:
1 PULSE CHANNEL - Single channel pulser connected
2 PULSE CHANNEL - Two channel pulser connected
REED PULSER - Reed switch pulser connected



CALIB 1 PULSE

Press calibration button once when desired option is displayed.

Select **2 PULSE CHANNEL** for Weights & Measures Alpha, **REED PULSER** for Alpha fitted with PULS.E18 reed switch pulser (pre August 2003) or Adblue™ Alpha and **1 PULSE CHANNEL** for all other Alpha versions.

6. The lower line will show the following in a looping sequence:
LITRES – Display measures in litres.
GALLONS – Display measures in gallons (Imperial or US)
Press calibration button once when desired option is displayed.



CALIB LITRES

7. The lower line will show the following in a looping sequence:
BACKLIGHT ON – backlight on constantly.
BACKLIGHT OFF – backlight off.
ON FOR FUELLING – backlight only on during fuelling.
Press calibration button once when desired option is displayed.



CALIB BACKLIGHT ON

8. The lower line will show the following in a looping sequence:

1 DECIMAL PLACE - One decimal place on display

2 DECIMAL PLACE - Two decimal places on display

Press calibration button once when desired option is displayed.

CALIB 1 DECIMAL PLACE

The image shows a calibration screen with the word 'CALIB' on the left and '1 DECIMAL PLACE' on the right. The background is a light beige color with a dark border.

9. The lower line will show the following in a looping sequence:

REED RELAY 10 - Ten pulse per litre reed relay output.

OPTO OUTPUT 10 - Ten pulse per litre opto-isolated output.

OPTO OUTPUT 100 - One hundred pulse per litre opto-isolated output.

Press calibration button once when desired option is displayed.

CALIB OPTO OUTPUT 10

The image shows a calibration screen with the word 'CALIB' on the left and 'OPTO OUTPUT 10' on the right. The background is a light beige color with a dark border.

10. The lower line will show the following in a looping sequence:

TANK SW UNUSED - No “tank empty” switch connected.

TANK SW IS TA.F - “Tank empty” switch connected is Hytek TA.F type* (*Feature coming soon)

TANK SW NOT TA.F - “Tank empty” switch connected is standard “normally closed” float switch*

(*Feature coming soon)

CALIB TANK SW IS TA.F

The image shows a calibration screen with the word 'CALIB' on the left and 'TANK SW IS TA.F' on the right. The background is a light beige color with a dark border.

11. The lower line will show the following in a looping sequence:

LEAK SW UNUSED - No “pump leak” switch connected.

LEAK SW IS TA.F - “pump leak” switch connected is Hytek TA.F type* (*Feature coming soon)

LEAK SW NOT TA.F - “pump leak” switch connected is standard “normally open” float switch*

(*Feature coming soon)

CALIB LEAK SW IS TA.F

The image shows a calibration screen with the word 'CALIB' on the left and 'LEAK SW IS TA.F' on the right. The background is a light beige color with a dark border.

12. The lower line will show the following
In a looping sequence:

NOZ 2 SW UNUSED – No additional
/remote nozzle switch connected.

2nd NOZ SW N/O– Additional nozzle
switch is normally open type.

2nd NOZ SW N/C – Additional
nozzle switch is normally closed
type.



CALIB NOZ 2 SW

13. The lower line will show the following
in a looping sequence:

STAND ALONE - Pump external
serial interface not used. **SELECT**
THIS OPTION

CONFIG NETWORK – Configure
serial network. **DO NOT SELECT**



CALIB STAND ALONE

14. The lower line will show the following
in a looping sequence:

SAVE AND EXIT – Save all settings
entered and return to normal
operation.

CALIBRATE PUMP – Continue and
calibrate pump with 20 litre measure.

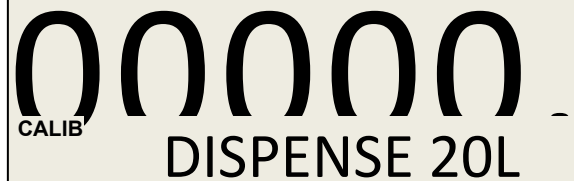
ABANDON CONFIG – Do not save
any settings entered and return to
normal operation.



CALIB CALIBRATE PUMP

15. If **CALIBRATE PUMP** was selected
TAKE NOZZLE will be shown.

Take the nozzle (the lower line will
show **DISPENSE 20L**) and dispense
20 litres into a calibrated test
measure.



CALIB DISPENSE 20L

16. Once 20 litres have been dispensed
hang up the nozzle. The lower line
should show **CALIBRATION OK**. If
there is an error in the calibration the
relevant error message will be
displayed.



CALIB CALIBRATION OK

ERRORS

If an error occurs **ERROR**, followed by a brief description is shown on the lower display. The errors are classified as follows:

FLOW TOO FAST The pulser has run too fast (in excess of 300 pulses per second)

UNAUTH FLOW The meter has turned without the nozzle being removed

CALIBRATE FAIL A time delay of 2 minutes or more has occurred during the 20 litre calibration.

PULSER SIGNAL One of the pulse transmitter's pulse trains has been interrupted.

PULSE REVERSE The meter has run backwards during a delivery

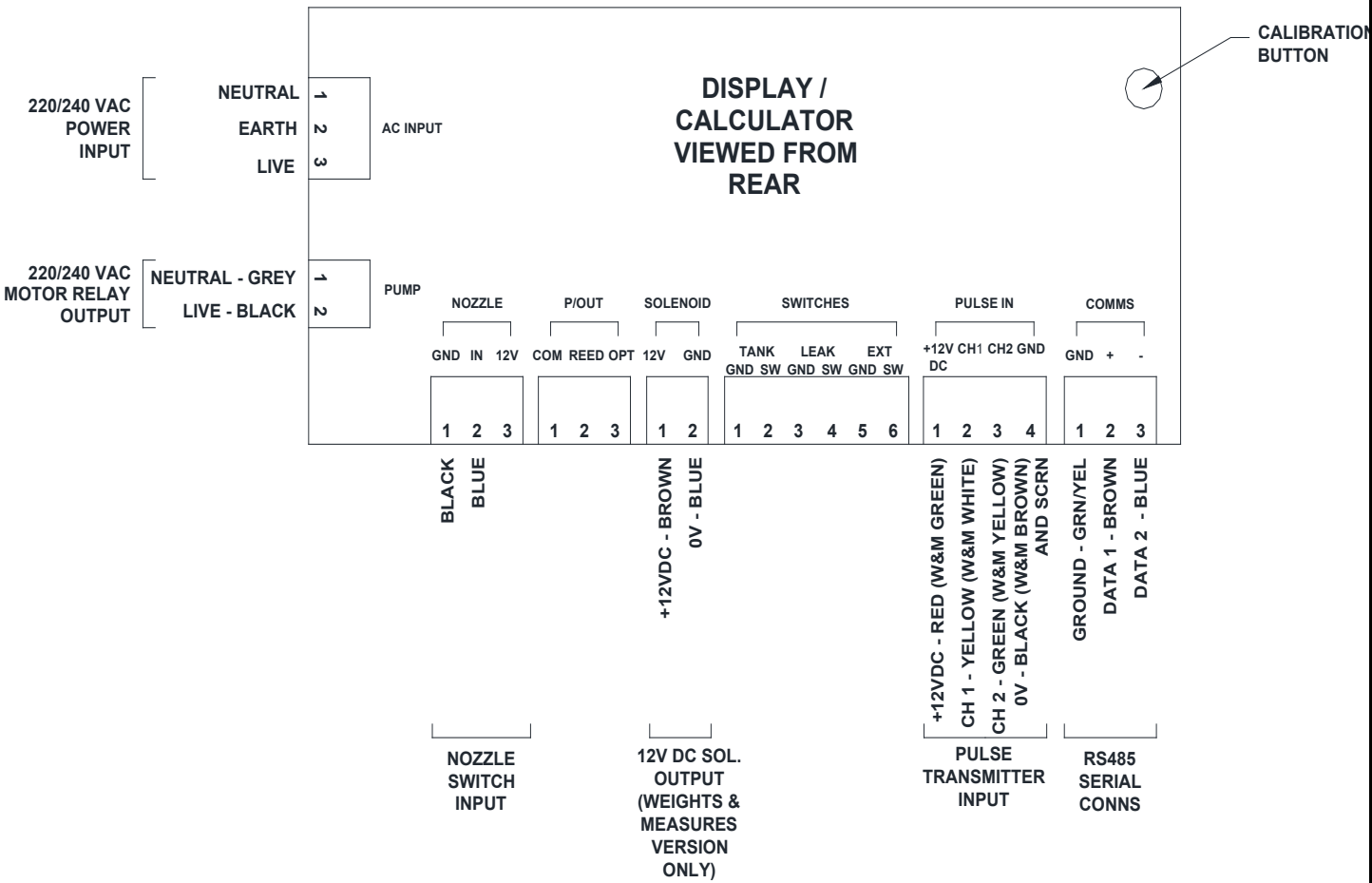
PULSER POWER The pulser has been disconnected

The error condition is maintained until the nozzle is returned to its holster, for at least 2 seconds, and then removed again to restart the fuelling sequence.

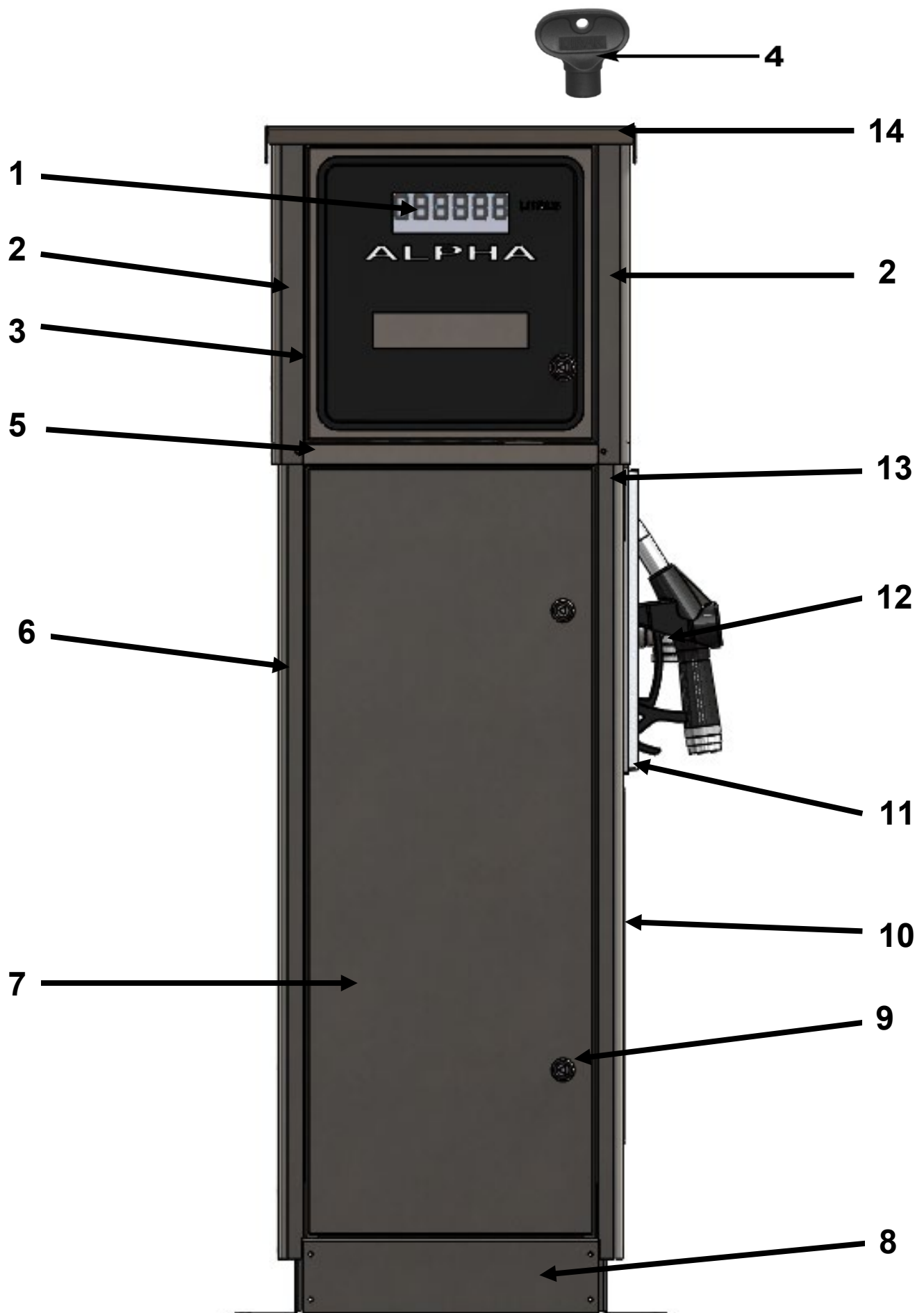
TIMEOUT

If, during a delivery, no fuel is dispensed for 2 minutes the display will show **TIMEOUT** alternating with **REPLACE NOZZLE** and the pump will stop running until the nozzle is returned to its holster, for at least 2 seconds, and then removed again to restart the fuelling sequence.

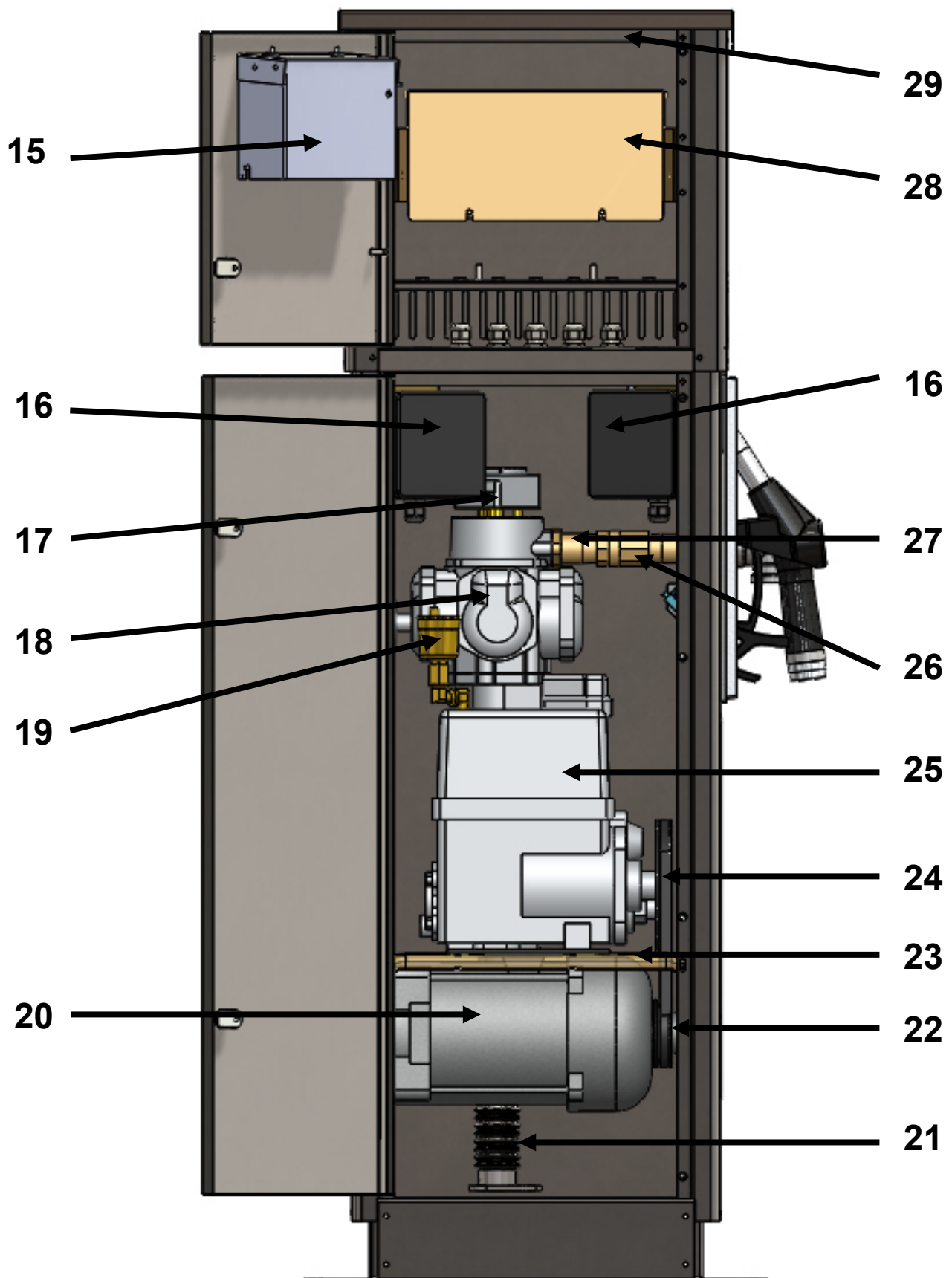
DISPLAY CONNECTION DIAGRAM



ALPHA EXTERNAL VIEW



ALPHA INTERNAL VIEW



ALPHA PARTS LIST

DRG. REF	PART DESCRIPTION	PART NO. P50	PART NO. P70
	EXTERNAL COMPONENTS		
1	LCD DISPLAY UNIT	ALP.DISP.PCB.3A	ALP.DISP.PCB.3A
	(Above item includes LCD, transformer board and fitting kit)		
2	SIDE PANEL (UPPER CABINET)	ALP.SPAN.E4	ALP.SPAN.E4
3	UPPER DOOR	ALP.DOOR.E4	ALP.DOOR.E4
4	DOOR KEY	209.KEY	209.KEY
5	LOWER CABINET CAP	ALP.CAP.H4	ALP.CAP.H4
6	SIDE PANEL (LOWER CABINET)	ALP.SPAN.BL4	ALP.SPAN.BL4
7	LOWER DOOR	ALP.DOORH4	ALP.DOORH4
	LOWER DOOR (FRONT NOZZLE OPTION)*	ALP.DOORHF4	ALP.DOORHF4
8	MOUNTING BASE	ALP.BASE3	ALP.BASE3
9	LOCK (x 3)	ALP.LOCK3	ALP.LOCK3
10	SIDE ACCESS PANEL	ALP.ACCPAN3	ALP.ACCPAN3
11	NOZZLE HOLSTER WITH SWITCH	ALP.NOZBOOT.P	ALP.NOZBOOT.P
12	OUTLET ELBOW	ELB.4FFCR	ELB.4FFCR
13	SIDE PANEL WITH HOSE OUTLET	ALP.SPAN.H4	ALP.SPAN.H4
	SIDE PANEL WITH HOSE OUTLET (FRONT NOZZLE OPTION)	ALP.SPAN.HF4	ALP.SPAN.HF4
14	TOP CAP	ALP.CAP4	ALP.CAP4
	INTERNAL COMPONENTS		
15	DISPLAY COVER	ALP.DISPCOV3A	ALP.DISPCOV3A
16	MAINS/230VAC JUNCTION BOX	ALP.JBOX.P	ALP.JBOX.P
17	PULSER	PULS.W	PULS.W
18	4 PISTON METER (2 REV PER L)	209A.METER.REP	209A.METER.REP
19	AIR SEPARATOR OUTLET FLOAT CHAMBER	MINIVENT	MINIVENT
20	MOTOR	MOT.E75.ATEX	MOT.E75.ATEX
21	FLEXIBLE SUCTION CONNECTOR	TTLB	TTLB
22	PULLEY	PULL.2C	PULL.25C
23	PUMP MOUNTING FRAME (x 2)	ALP.PFRAME3	ALP.PFRAME3
24	PULLEY BELT	VBLT.275	VBLT.28
25	PUMP UNIT (COMPLETE)	209A.PASSY.P	209A.PASSY.P
26	OUTLET CHECK VALVE	CHK.1P.DRILL	CHK.1P.DRILL
27	METER OUTLET PIPE	ALP.OUTPIPE.W	ALP.OUTPIPE.W
28	JUNCTION BOX	ALP.DBOX3	ALP.DBOX3
29	UPPER PANEL (x 2)	ALP.UPAN4	ALP.UPAN4
30	INLET FLANGE*	FLNG	FLNG
31	INLET GASKET*	GSK.TRI.P	GSK.TRI.P
32	RELAY (INSIDE JUNCTION BOX)*	ALP.RELAY	ALP.RELAY
33	PUMP MOUNTING PLATE*	ALP.PPLATE3C	ALP.PPLATE3C
34	CHECK VALVE*	209EP.21	209EP.21
35	BYPASS VALVE*	209EP.29	209EP.29
36	PUMP UNIT VANES* (X 6)	209EP.38	209EP.38
37	PUMP UNIT FILTER*	209EP.3	209EP.3

*Not shown on illustration

DECLARATION OF CONFORMITY

HYTEK
FUEL & LUBRICATION
EQUIPMENT

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

Address: **Delta House
Green Street
Elsenham,
Bishop's Stortford
Hertfordshire
CM22 6DS**

Date of Issue: **29th May 2026**

Equipment Details: **Alpha ATEX Fuel Pumps and Pumps with Fuel Control
ALPHA/50P, ALPHA/50LP, ALPHA/50FP, ALPHA/70P, ALPHA/70LP,
ALPHA/70FP, ALPHA/50PFC, ALPHA/50LPFC, ALPHA/70PFC,
ALPHA/70LPFC**

Applicable Directives:
& Standards

S1 2016 1091 Electromagnetic Compatibility Regulations

S1 2016 1101 Electrical Equipment Safety Regulations

S1 2008 1597 Supply of Machinery Safety Regulations

S1 2016 1105 Pressure Equipment Safety Regulations

S1 2013 3113 Waste Electrical & Electronic Equipment Regulations

S1 2012 3032 Restriction of Use of Certain Hazardous Substances Regulations

2014/34/EU ATEX Directive

EN 13617-1:2012 & EN 1127-1:2019

EC Type examination Certificate

Number: CML 17ATEX9254

Issued by Notified Body: Eurofins CML B.V Number 2776
Koopvaardijweg 32-34, 4906 CV
Oosterhout, The Netherlands

Marking: Ex II 2 G
EN 13617-1:2012
Ta= -20°C to + 40°C

Notified Body Issuing QA: Eurofins CML B.V Number 2776
Notification Certificate Chamber of Commerce No 67386717
Koopvaardijweg 32-34, 4906 CV
Oosterhout, The Netherlands

Declaration Number: **UK137 Issue 6**

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

Clive Wellings, Process Co-ordinator
29th May 2026,
Bishop's Stortford, Herts

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