# **Technical Data**



# ALPHA EX & MIR APPROVED DIESEL PUMP WITH FUEL CONTROL SYSTEM



Applies to the following models **ONLY**:

**ALPHA...** 

/50WAFC /70WAFC /90WAFC

Please read carefully **BEFORE** commencing installation.

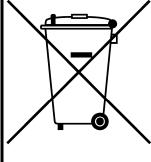
Registered Office: HYTEK (GB) LIMITED,
Delta House, Green Street, Elsenham, Bishop's Stortford,
CM22 6DS UK.

Registered in England No. 1915382 Tel: +44 (0) 1279 815 600

Email: info@hytekgb.com



#### **ENVIRONMENTAL INFORMATION**



UK Regulation SI/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 diesel or other liquids classed as category 3 in accordance with European Regulation No. 1272/2008. It bears the following certification marking and number:

MANUFACTURED TO: EN13617-1 CERTIFICATE NO: CML 15ATEX9183



This pump is MIR certified in accordance with OIML to dispense diesel or other liquids in viscosity class 2. It bears the following certification marking and number:

UK/0126/0240

#### **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 diesel or other liquids classed as category 3 in accordance with European Regulation No. 1272/2008. It must not be used to dispense petrol or any other liquid with a similar flash point.
- 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 and the latest relevant electrical and local authority regulations and standards.
- 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.
- 6. Minimum delivery is 2 litres. See that indication is ZERO before delivery commences. For attended service a delivery can only be authorised after settlement of the previous transaction.
- 7. The pump must be located and installed in a climatic environment in accordance with the following:

Temperature : -20°C to +45°C

Humidity : Class H3 (open location with

average climatic conditions)

Environment : Open and condensing

Mechanical : Class M1 (location with vibration of

low significance)

Electrical Disturbance : E1 (located in residential, commercial

and light industrial environments)

#### **INSTALLATION INSTRUCTIONS**

- 1. Check you have the following items:
  - 1 off Alpha FC10 pump
  - 1 off delivery hose
  - 2 off front door keys
- 2. Open the front panel using the key provided.
- 3. Remove the rear panel, if necessary, and store safely.

#### **MOUNTING**

4. Bolt the pump to a firm level foundation by means of the four 14 mm diameter-mounting holes provided.

NB: If the optional drip tray is to be 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 must also be sealed.

#### **PIPEWORK**

5. Connect the 11/2" diameter pipe from the tank to the suction inlet flexible connector of the pump. The inlet thread of the flexible connector flange is 11/2" 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 one end of the delivery hose into the outlet elbow. Ensure the hose-sealing washer is in place on the hose end. It should be hand tight plus a quarter turn.
- 7. Screw the nozzle onto the other end of the hose, again ensuring the washer is in place. No other sealing compound is necessary. Hand tight plus a quarter turn.

#### **ELECTRICAL**

- 8. Remove the cover from the junction box.
- 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.

10. Ensure all terminal screws are tight and replace the junction box cover.

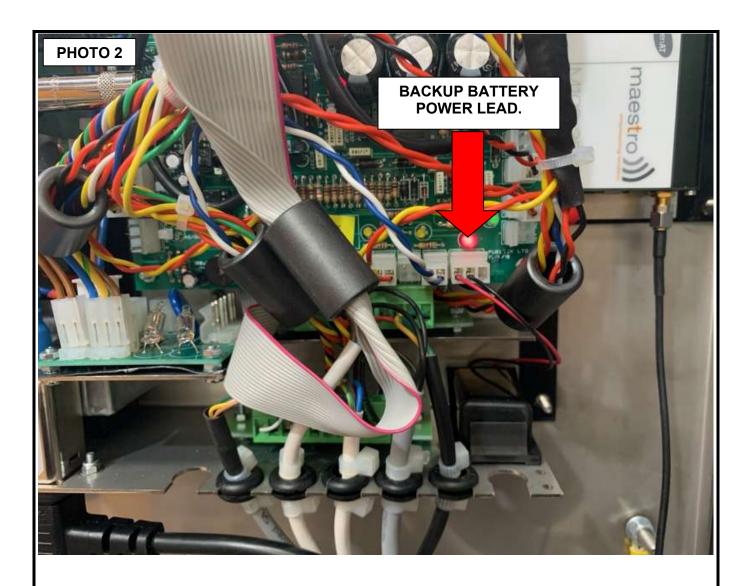
### **BATTERY BACKUP POWER**

The Alpha FC10 MIR pump requires battery backup. The battery connector lead must be plugged onto the logic board on installation, before powering up the pump. Ensure the power is turned off to the pump and then remove the electronics panel on the back of the door.

Plug the battery connector lead onto the logic board as shown by the red arrow in photo 2.

The onboard battery needs to be replaced every 12 months.





#### **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 which 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
- On board battery should be replaced every 12 months

#### **USING THE FC10 FUEL CONTROL UNIT**

#### <u>ALPHA PUMP TERMINAL FEATURES</u>

The Alpha Pump Terminal pictured below is fitted into the front of the Alpha fuel dispenser.



#### **FEATURES:**

Display: This shows pump totals as well as user information and

instructions. The display is backlit to allow the pump to be

used in all light conditions.

Keypad: Used to enter information such as odometer readings and

PIN codes.

Data Tag This is where the Data Tag is inserted by the user to

Reader Slot: initiate the dispensing of fuel.

#### THE ALPHA PUMP TERMINAL IN STANDBY MODE

This is when the Alpha Pump Terminal is powered up, with the display illuminated, but not in use.

#### **DISPLAY INFORMATION:**

Total Pump 1: This is the number shown in the top left-hand corner of the

display screen. It is the total amount of fuel dispensed by

pump 1 since installation.

Time and Date: This is shown in the centre at the top of the display screen

It will cycle between the Time & Date and the site name.

Total Pump 2: This is only active if an additional pump is connected to

the ALPHA FC10. **NOT AVAILBLE ON MIR VERSION**.

Last These are shown in the dark coloured box in the centre

Transaction: of the display screen. They include the Data Tag ID

number of the last user, the amount of fuel delivered, the

time and date the fuel was delivered and vehicle MPG.

Last Amount

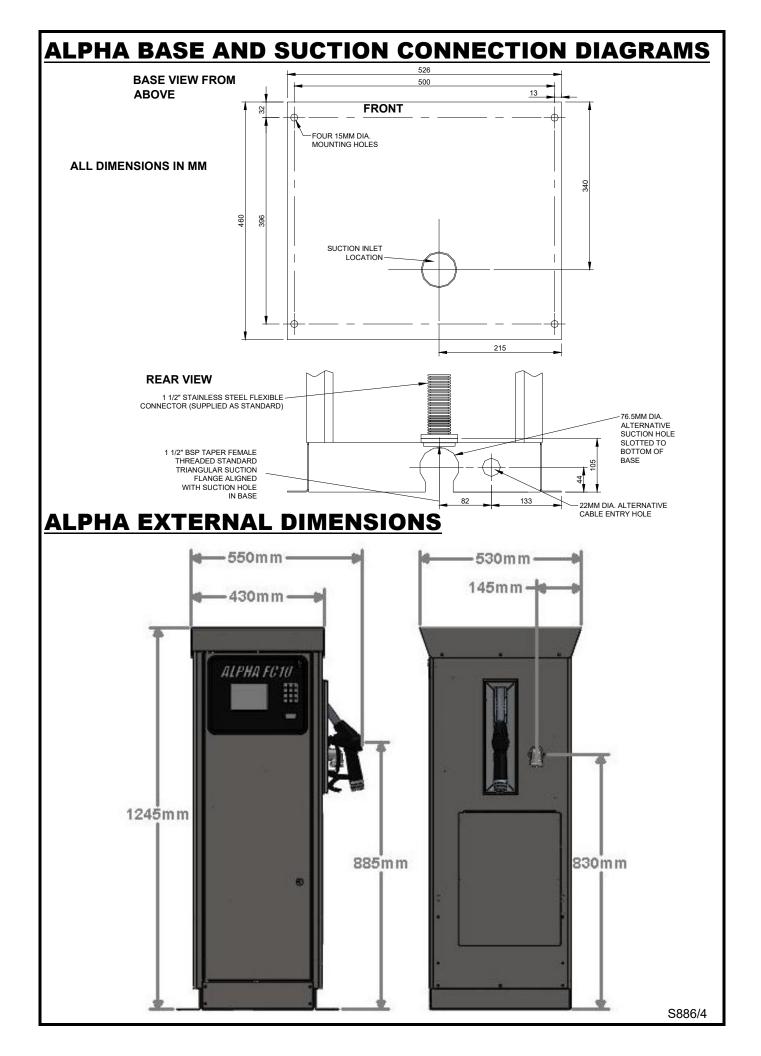
This is shown in large text at the bottom of the display.

Dispensed:

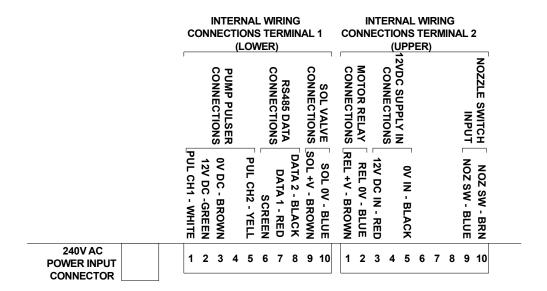
### FUELLING FROM THE ALPHA PUMP TERMINAL

#### THE FUELLING PROCEDURE:

- a.) Insert Data Tag into the Data Tag Reader Slot. The display will show the Data Tag ID number and the registration number of the vehicle the Data Tag is allocated to.
- b.) If a message for the vehicle user is stored on the system, it will be displayed. The "ENT" key on the keypad must be pressed, to acknowledge the message, before fuel can be drawn.
- c.) If entry of the vehicle's odometer reading is required, the display will show "PLEASE ENTER CURRENT ODOMETER". The last odometer reading entered for this vehicle will also be shown if this feature has been enabled in the Fuel Manager software. Type the current vehicle odometer reading, on the keypad, followed by pressing the "ENT" key.
- d.) If entry of a driver's identity PIN number is required, the display will show "PLEASE ENTER DRIVER ID". Type the identity PIN number of the driver, on the keypad, followed by pressing the "ENT" key.
- e.) "REMOVE DATA TAG" will be shown on the display.
- f.) Remove the Data Tag from the Data Tag Reader Slot. The display will now show "PLEASE FUEL AT THE PUMP".
- g.) Remove the nozzle from the pump nozzle holster, place in the vehicle fuel tank filler and draw fuel.
- h.) The amount of fuel dispensed will be shown on the display.
- i.) On completion of the fuel delivery replace the nozzle in the pump nozzle holster.
- j.) The amount of fuel taken will be retained on the display screen until a Data Tag is inserted into the Data Tag Reader Slot.

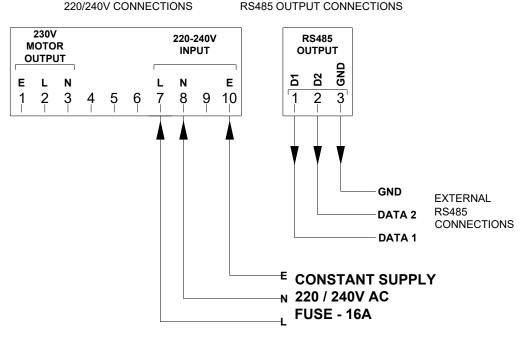


#### **ALPHA DISPLAY CONNECTIONS DETAILS**



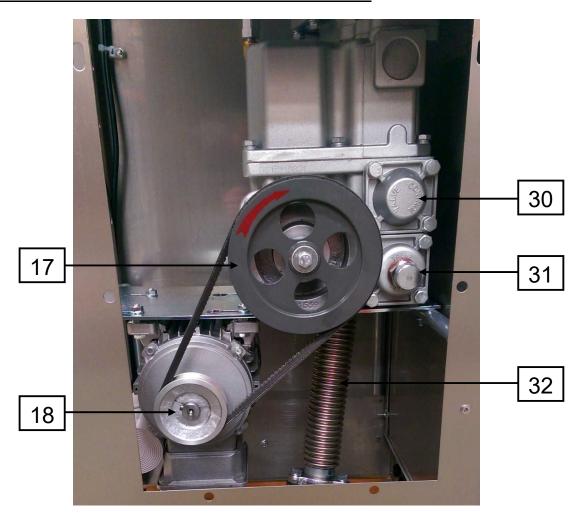
## **ALPHA JUNCTION BOX CONNECTION DETAILS**

#### **ALPHA FC10 MAIN JUNCTION BOX INSTALLATION WIRING DETAILS**



S886/4

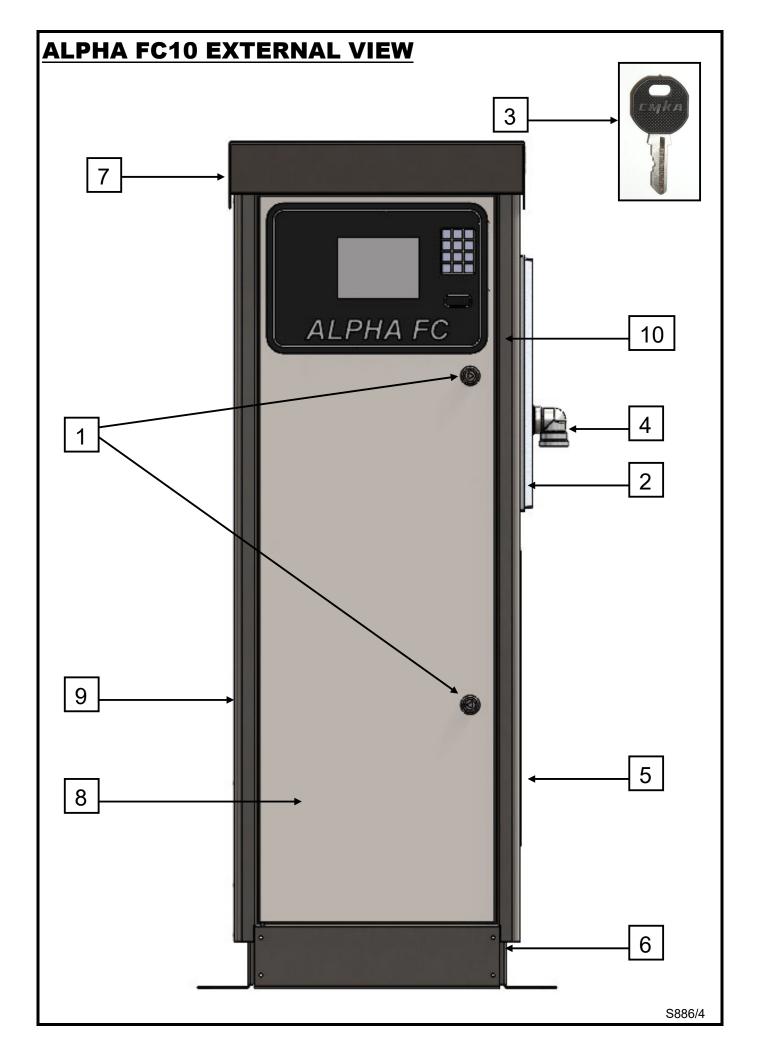
# **ALPHA SIDE ACCESS PANEL VIEW**

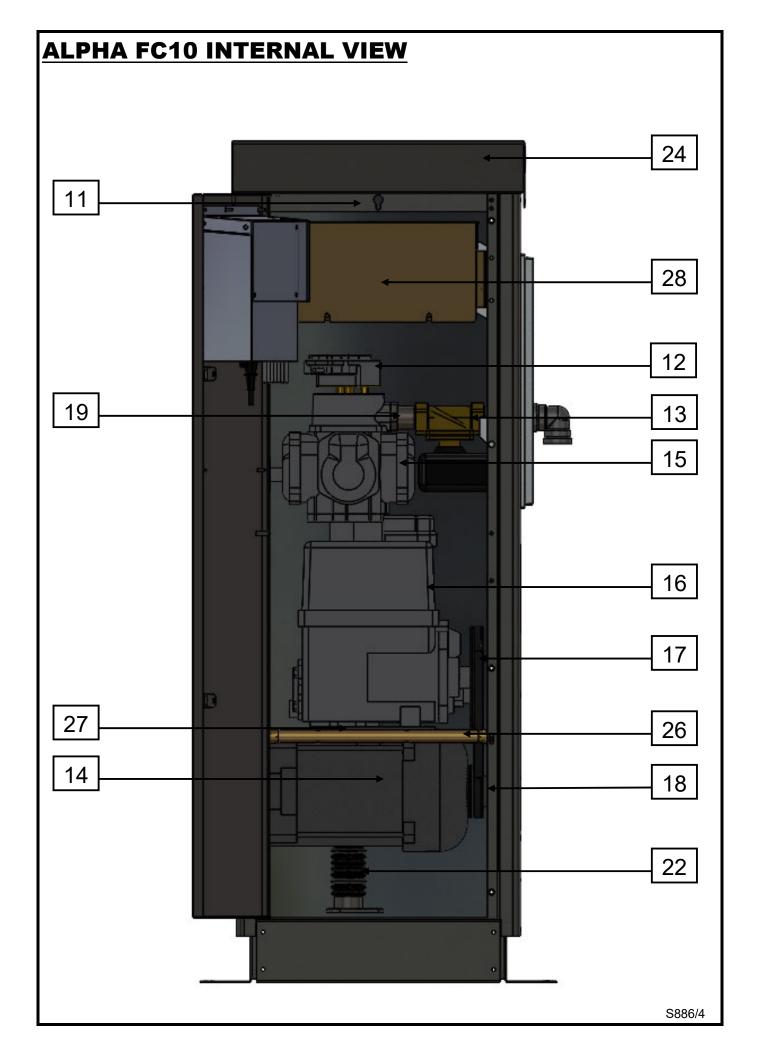


# **ALPHA PUMP UNIT FILTER LOCATION**

PUMP UNIT FILTER LOCATION AS VIEWED FROM THE FRONT







ALPHA PARTS LIST		
DRG. REF	PART DESCRIPTION	PART NO.
	EXTERNAL COMPONENTS	
1	LOCK (x 2)	ALP.LOCK.FC
2	NOZZLE HOLSTER WITH SWITCH	ALP.NOZBOOT.FC10
3	DOOR KEY	ALP.KEY.FC
4	OUTLET ELBOW	ELB.4FFCR
5	SIDE ACCESS PANEL	ALP.ACCPAN3
6	MOUNTING BASE	ALP.BASE3
7	TOP CAP	ALP.CAP3
8	DOOR	ALP.DOOR.FC3
9	SIDE PANEL	ALP.SPAN.BL3
10	SIDE PANEL WITH HOSE OUTLET	ALP.SPANH3
	INTERNAL COMPONENTS	
11	DOOR STAY	ALP.DSTAY3
12	PULSER	PULS.W
13	SOLENOID VALVE	ALP.SOL.A
14	MOTOR	MOT.E75.ATEX
15	4 PISTON METER (2 REV PER LITRE)	209A.METER.REP
16	PUMP UNIT (COMPLETE)	209A.PASSY.W
17	PULLEY BELT (50 LPM)	VBLT.275
17	PULLEY BELT (70 LPM)	VBLT.28
17	PULLEY BELT (90 LPM)	VBLT.285
18	PULLEY (50 LPM)	PULL.2C
18	PULLEY (70 LPM)	PULL.25C
18	PULLEY (90 LPM)	PULL.25C
19	METER OUTLET PIPE	ALP.OUTPIPE.W
20	INLET FLANGE*	FLNG
21	INLET GASKET*	GSK.TRI
22	FLEXIBLE SUCTION CONNECTOR	TTLB
23	MOTOR RELAY (INSIDE JUNCTION BOX)*	ALP.FC10.RELAY
	SOLENOID RELAY (INSIDE JUNCTION BOX)*	ALP.FC10.RELAY
24	UPPER PANEL FRONT	ALP.UPAN3
25	UPPER PANEL REAR*	ALP.UPAN3
26	PUMP MOUNTING FRAME (x 2)	ALP.PFRAME3
27	MOTOR MOUNTING PLATE	ALP.PPLATE3C
28	JUNCTION BOX	ALP.DBOX.FC103
29	POWER FAIL BACKUP BATTERY*	ALP.W.BATT

<sup>\*</sup> Not shown

#### **UK/EU DECLARATION OF CONFORMITY**

Company Name: Hytek (GB) Ltd

Address: Delta House, Green Street, Elsenham

Bishop's Stortford, Hertfordshire, CM22 6DS

Date of Issue: 21st August 2023

Equipment Details: Alpha ATEX Fuel Pumps with Fuel Control - MIR Approved

ALPHA/50WAFC, ALPHA/70WAFC, ALPHA/90WAFC

Applicable Directives: SI 2016 1091 Electromagnetic Compatibility Regulations

& Standards 2004/108/EC EMC Directive & 2014/30/EU EMC Directive

SI 2016 1101 Electrical Equipment Safety Regulations

2014/35/EU Low Voltage Directive

SI 2008 1597 Supply of Machinery Safety Regulations

2006/42/EC Machinery Directive

SI 2016 1105 Pressure Equipment Safety Regulations

2014/68/EU Pressure Equipment Directive

SI 2013 3113 Waste Electrical & Electronic Equipment Regulations 2012/19/EU Waste Electrical & Electronic Equipment Regulations

SI 2012 3032 Restriction of Use of Certain Hazardous Substances Regulations 2011/65/EU Restriction of Hazardous Substances Directive (RoHS2)

& 2014/34/EU ATEX Directive

EN 13617-1 & EN 1127-1

EU Type examination Certificate

Number: CML 15ATEX9183 Issued by Notified Body: CML Ltd. Number 2503

Unit 1 Newport Business Park, New Port Road

Fuel Transfer Solutions

Ellesmere Port, CH65 4LZ UK

Marking: Ex II 2 G

EN 13617-1:2012 Ta= -20°C to + 40°C

Notified Body Issuing QA: CML B.V Number 2776

Notification Certificate Chamber of Commerce No 6738671

Hoogoorddreef 15, Amsterdam, 1101 BA,

The Netherlands

2016 SI 1153 Measuring Instruments Regulations

Type Examination Certificate No.: UK/0126/0240

Approved Body: NMO Number 0126

Stanton Ave, Teddington TW11 0JZ

Declaration Number: UK142 Issue 4

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, Process Co-ordinator 21st August 2023,

Bishop's Stortford, Herts

