

Manor Farm Industrial Estate,  
Flint, Flintshire CH6 5UY

**PLEASE COMPLETE AND RETURN AS SOON AS POSSIBLE  
TO ALLOW DESIGN/MANUFACTURE TO PROGRESS**

Telephone +44 (0)1352793222  
Email: orders@tvcl.co.uk

TVC Quote No.	
Company Name	
Company Contact	
Address	
Delivery Address (if different from above)	

Customer Job No.	
Site Reference	

The above references will be added to  
all documentation including drawings

**Note: this document will be the official document used to configure your controller. Complete it carefully as any changes may result in additional cost and delayed delivery. Any features requested in this document that are not already included in the quotation may be subject to a price increase.**

### REQUIREMENTS

Please complete the attached questionnaire and supply all relevant information in order that the lift control panel(s) may be designed and manufactured. Inaccurate or incomplete information may delay delivery.

For Modernisation jobs, all application data on existing equipment and any requirements not covered on the quotation should be recorded and attached to this form.

Please contact TVC if any questions arise regarding the required data.

Authorised By: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

**TVC cannot accept this document unless signed and dated**

Internal use only. TVC contract number: \_\_\_\_\_



**MAINS SUPPLY**

	Volts
	Phase
	Hz

 Is a Suitable  
Neutral Available?

 Yes  
4 Wire

 No  
3Wire
**PUMP MOTOR**

Manufacturer	
Power	KW
Full Load Current	A

**PUMP MOTOR CONTROL METHOD**

Bucher VVVF		<i>For VVVF control methods, please supply the manufacturer's data sheet for the application</i>
ALGI VVVF		
Star/Delta		
Direct-on-line		
Soft Starter		<i>Please provide details below</i>
Other		<i>Please provide details below</i>

**APPLICATION DETAILS**
 Car Speed  m/s

**VALVE UNIT**
 Bucher **Eco Line (VVVF)** - iValve

☐


With Super Capacitor

☐

 Bucher **Eco Line (VVVF)** – ELRV

☐


With Accumulator

☐

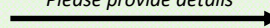
 Bucher **Comfort Line** – iValve

☐

 Bucher **Comfort Line** – ELRV

☐

Other

☐
*Please provide details*

 Manufacturer  
Type



No: of Valves

Valve Solenoid Voltage

 AC/DC
**OTHER FEATURES**

Please select all features to be included

Oil Cooler

☐

 Voltage:  V

 Phases: 

 Current:  A

Oil Heater

☐

 Voltage:  V

 Phases: 

 Current:  A

Pawl Devices

☐
*Please supply data sheet and full details*

Bucher DZE Pressure Switch

☐

Bucher Emergency Stop Solenoid

☐

 Voltage:  110Vac  230Vac

*24Vdc supplied as standard for iValve applications*



**LIFT SETUP / APPLICATION**

No of Floors

**Please insert floor markings**

Front Entrances

--	--	--	--	--	--	--	--

Rear Entrances

*(If applicable)*

--	--	--	--	--	--	--	--

Floor Height (M)

--	--	--	--	--	--	--	--

*(3M floor heights will be assumed if not specified)*

Main (Homing) Floor

Control System

Simplex

Duplex

Group

HCD  
Navigator

*If Duplex, Group or HCD system and all lifts do not serve all floors, supply full details of entrance layout*

Full Collective

Down Collective

Non-Selective Collective

FAPB Control

**SAFETY FEATURES**
 Safety Gear  
(EN81-20 § 5.6.2)

Mechanical

Electromechanical

 Provide full details  
*(Bi-directional with 24Vdc solenoid required)*

 Unintended Car Movement Protection  
(EN81-20 § 5.6.7.7 / 5.6.7.8)

☐

 Stopping  
element

 Bucher  
DSV-A3

 Solenoid Voltage  
110Vac

 Solenoid Voltage  
230Vac

 Electromechanical  
Safety Gear

*Only available via a Bi-directional  
Electromechanical Safety Gear.*

 OSG Solenoid activating  
mechanical safety gear

Manufacturer

 Solenoid Voltage  
V

Other

Please provide details

 Reduced Buffer Stroke  
(EN81-20 § 5.12.1.3)

Yes

No

*If yes, specify  
maximum Buffer speed*

m/s



### DOOR CONTROL

No of Car Entrances

1

2

If 2 entrances



Non-Selective  
Door Opening

Selective  
Door Opening

#### Select Type

Fully Automatic Car & Landing

☐

Complete **SECTION A** below only

Manually Operated Car & Landing

☐

Complete **SECTION B** below only

Fully Automatic Car & Manually Operated Landing

☐

Complete **SECTIONS A & B** below

### CAR DOOR OPERATOR

### SECTION A

#### Select Type

GAL VVVF

☐

Is GAL HA (Fault Monitoring) Unit Fitted

Yes

No

FERMATOR VVVF

☐

SEMATIC VVVF

☐

Select Type

SDS

F28

F29

SELCOM VVVF

☐

Select Type

SUPRA

MIDI

ECO

SIEMENS

☐

Select Type

AT18

AT25

AT40

OTHER

☐

Provide Details

### RETIRING RAMP

### SECTION B

Voltage

Vdc

Power Rating

W

### SPECIAL DOOR CONTROL REQUIREMENTS

Please specify any special door control requirements



**DIGITAL POSITION INDICATORS****24Vdc****Select Manufacturer****Specify Type**

Dewhurst

Stentorgate

ILE 4 Wire Serial

A&amp;A Omega 4

Drucegrove

Digital Advance

Other

**Standard position indicator signals**

Floor Position, Lift Direction,  
Lift on Fire Control,  
Lift Overloaded, Lift Out of Service

Please provide a list of any additional  
indicator messages

Displays fitted at:

Car

Main Floor

All Floors

*(If free issue encoder, please ensure we receive  
the unit at least two weeks before despatch date,  
if not, we reserve the right to dispatch the  
contract minus the free issue equipment fitted)*

Battery Backed Up Indicator Supply  
(Lift out of service message)

Y

N

*If selected, TVC standard Back up duration is for 1 Hour*

Discrete Hall Lantern Arrows  
(Not driven by the Digital Display system)

Y

N

Please provide details

**SPEECH UNIT****24Vdc****Select Manufacturer**

Dewhurst

Stentorgate

ILE

Drucegrove Digitalker

Digital Advance

Other

**Standard speech unit signals**

Floor Position, Doors Opening, Doors Closing,  
Lift Direction, Lift on Fire Control,  
Lift Overloaded, Lift Out of Service

Please provide a list of any additional  
speech messages

Specify Manufacturer & Type

**SPECIAL REQUIREMENTS**

Please specify any additional indicator/speech/gong requirements



### LIFT POSITIONING SYSTEM

LIMAX3CP – Safe Magnetic Absolute Shaft Information System

- is an easy-to-install, high performance system suitable for all applications.
- requires **NO** door zone switches in the lift shaft.
- uses a shaft mounted tape system, please specify the Tape length required.

M

Can be used for lifts  
requiring the these features

Lifts with relevelling	Absolute Position	Auto Shaft Learn	Firefighting Applications	Speeds up to:
✓	✓	✗	✓	6.0 m/s

LIMAX3CP can be used for the following safety features, it will be **pre-configured** at TVC to suit the site requirements, therefore, please ensure all safety features required are selected from these forms.



**Note: these forms will be the official document used to configure your Limax3CP.**

**Complete them carefully as any changes will require a replacement Limax3CP, as these features cannot be changed on site.**

Safety Feature	Fulfilled by Limax3CP	Normative reference
Overspeed pre-tripping	Only when used with a Bi-directional Electromechanical Safety Gear.	EN81-20 § 5.6.2.2.1.6.a
Overspeed final tripping	Only when used with a Bi-directional Electromechanical Safety Gear.	EN81-20 § 5.6.2.2.1.1.a
Final Limit Switches	Yes	EN81-20 § 5.12.2.3.1.b
Inspection Limit Switches	Yes	EN81-21 § 5.5.3.4 / § 5.7.3.4
Door bridging (Monitoring the levelling and relevelling)	Yes	EN81-20 § 5.12.1.4
Unintended car movement protection	Only when used with either a Bi-directional Electromechanical Safety Gear, Dual Brake or a conventional safety gear triggered by a conventional speed governor, which in turn is triggered via a solenoid	EN81-20 § 5.6.7.7
Upper Pre-triggered Stopping System (Reduced clearances in the headroom)	Only when used with a Bi-directional Electromechanical Safety Gear or a conventional safety gear triggered by a conventional speed governor, which in turn is triggered via a solenoid	EN81-21 § 5.5.2.3
Lower Pre-triggered Stopping System (Reduced clearances in the pit)	Only when used with a Bi-directional Electromechanical Safety Gear or a conventional safety gear triggered by a conventional speed governor, which in turn is triggered via a solenoid	EN81-21 § 5.7.2.3
Deceleration control for Reduced stroke buffer	When specified/required	EN81-20 § 5.12.1.3



## CONTROLLER OPTIONS

Please select all options required to be included within the TVC control system

Remote OSG Trip Solenoid interface	<input type="checkbox"/>	Voltage:	<input type="text"/> V			
Remote OSG Reset Solenoid interface	<input type="checkbox"/>	Voltage:	<input type="text"/> V			
Digital Handwind Unit (HW03)	<input type="checkbox"/>					
Eco-mode	<input type="checkbox"/>					
Panel mounted Emergency Stop switch	<input type="checkbox"/>					
Swipe Card interface	<input type="checkbox"/>	Supply full details in the "Special Requirements" section on page 7				
Automatic Rescue Device (UPS) <i>(Requires a suitable Neutral connection)</i>	<input type="checkbox"/>	→ Rescue lift at reduced speed to:	<table border="1"> <tr> <td>Nearest Floor &amp; shutdown</td> <td>Main Floor &amp; shutdown</td> </tr> </table>	Nearest Floor & shutdown	Main Floor & shutdown	
Nearest Floor & shutdown	Main Floor & shutdown					
Engineer's Access Control	<input type="checkbox"/>	Allows safer access to the lift Cartop for maintenance personnel				
Building Management interface	<input type="checkbox"/>	Supply full details in the "Special Requirements" section on page 7				
Emergency Generator Supply	<input type="checkbox"/>					
TVC Elevator Monitoring Unit (EMU)	<input type="checkbox"/>					
TVC EM181 Autodialler	<input type="checkbox"/>					
E-Director	<input type="checkbox"/>	E-Director offers a graphical representation of the Ethos control systems, from simplex to full group				
Hospital Priority control	<input type="checkbox"/>	Supply full details in the "Special Requirements" section on page 7				
EN81-20:2014 Compliant Lift	<input type="checkbox"/>					
EN81-21:2018 Compliant Lift	<input type="checkbox"/>	If selected, complete the details on attached "EN81-21" form.				
EN81-71:2018 Vandal Resistant Lift	<input type="checkbox"/>	→	<table border="1"> <tr> <td>Category 1 Lift</td> <td>Category 2 Lift</td> </tr> </table>	Category 1 Lift	Category 2 Lift	
Category 1 Lift	Category 2 Lift					
EN81-72:2015 Fire fighting Lift	<input type="checkbox"/>	Note: TVC only offer a Robust enclosure, not Certified Vandal resistant				
EN81-73:2016 Fire Alarm	<input type="checkbox"/>					
BS9999:2017 Evacuation control	<input type="checkbox"/>					
Lift Consultants' Specification	<input type="checkbox"/>	→ Specification reference:	<input type="text"/>			
		Applicable pages:	<input type="text"/>			
Rubber Electrical Safety Mat	<input type="checkbox"/>	1200mm x 1000mm x 9mm				
Cabinet Plinth	<input type="checkbox"/>	→ Height	<table border="1"> <tr> <td>100</td> <td>200</td> <td>300</td> </tr> </table> mm	100	200	300
100	200	300				
Cabinet Wall Mounting Brackets	<input type="checkbox"/>					
TVC offer "Pre-wired" lift devices to enable faster site installation:e.g. Trailing Flexes, Cartop Control Unit, COP, LOP.						
Select if Pre-wired devices are required	<input type="checkbox"/>	If selected, complete the details on attached "Pre-wired" forms.				



## EN81-21 Compliance

Yes

No

If Yes, please select all options required to be included within the TVC control system design.

If No, proceed to next sheet.

### EN81-21: Clause 5.5

#### Reduced clearances in headroom

☐

If required, select method to be used:

Moveable stops

Yes

No

If yes, provide details

Pre-tiggered

stopping system

Yes

No

If yes, select Height of refuge space as EN81-21 § 5.5.2.4

1,00M  
Crouching



2,00M  
Upright



### EN81-21: Clause 5.6

#### Extendable car roof balustrade

☐

Please provide full details of system to be used

### EN81-21: Clause 5.7

#### Reduced clearances in pit

☐

If required, select method to be used:

Moveable stops

Yes

No

If yes, provide details

Pre-tiggered

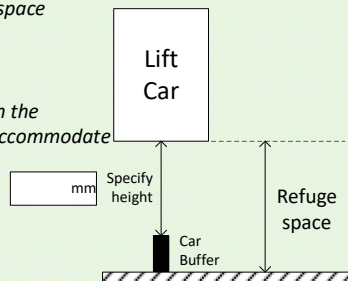
stopping system

Yes

No

If yes, select Height of refuge space  
As EN81-21 § 5.7.2.4

And also the distance between the  
Car buffer and the lift car to accommodate  
The required refuge space



0,5M  
Laying



1,00M  
Crouching



2,00M  
Upright



### EN81-21: Clause 5.8

#### Extendable apron

☐

Please provide full details of system to be used



## STANDARD FEATURES INCLUDED IN THE CONTROL PANEL

### Control Features

110V/230VAC Door detector supply  
 Alarm supply 12Vdc  
 Standard adhesive component labels  
 Dewhurst EnBuzz interface  
 Dual illumination  
 Non-adjustable Thermostat  
 Phase failure / phase reversal protection  
 Motor thermistor protection  
 Door open & door close push indicator outputs  
 Alarm Filtering in compliance with EN81-28:2018  
 Emergency electrical operation  
 ECO mode car light & fan turn off  
 Door Nudging  
 Advance door opening  
 Relevelling  
 Volt-free Lift in/out of service & Lift alarm contacts  
 Top of Car Termination Box (Including serial Car Module)  
 Low Smoke Zero Halogen cable  
 Miniature Circuit Breaker protection

The following assumptions will be made unless specifically stated otherwise.

Lift counterweighted at 50%.  
 Gear efficiency approximately 70%.  
 Well efficiency approximately 80%.  
 No compensation ropes fitted.

Maximum acceleration & jerk rates  
 Please specify if alternate values are required

Lift speed (m/s)	Accel rate (m/s <sup>2</sup> )	Jerk rate (m/s <sup>3</sup> )
< 1.0	0.4	0.6
1.0 - 1.5	0.7	0.75
1.6 - 2.4	0.8	0.9
2.5 - 2.9	0.9	1.0
3.0 - 4.9	1.0	1.25
5.0 - 5.9	1.2	1.5
> 5.9	1.2	1.8

### Standard Ethos Microprocessor features

Service control / Car preference  
 90% load weighing  
 110% load weighing  
 Emergency recall to fire floor (selected via Ethos MMI), doors dwell closed  
 Fire alarm recall to fire floor (selected via Ethos MMI), doors park open (default)  
 Homing (floor selected via Ethos MMI)  
 Anti nuisance  
 Door disable switch  
 Prepare to test switch  
 Double journey timer  
 English language Colour touch screen MMI  
 Facility for inserting car & landing calls via Ethos MMI  
 Floor position, car direction, doors status & lift status graphical display  
 Digital trip counter  
 Door nudging buzzer output

### Call pushes

24Vdc 3 wire Car & Landing call pushes.  
 Maximum power rating for each call push 1W

### Controller Mechanics – Non MRL

Wall/floor mounted cabinet, powder coated mild steel  
 Dimensions: Height 1200 - 1800mm, Width 800mm, Depth 400mm  
 DBR resistors (where required) mounted on the top of the cabinet  
 Centre opening doors.  
 IP22 rating

### Controller Mechanics - MRL

Refer to MRL ED5 forms for available controller mechanical options.

### Compliance details

Products are manufactured within a system certified to BS EN ISO9001:2000