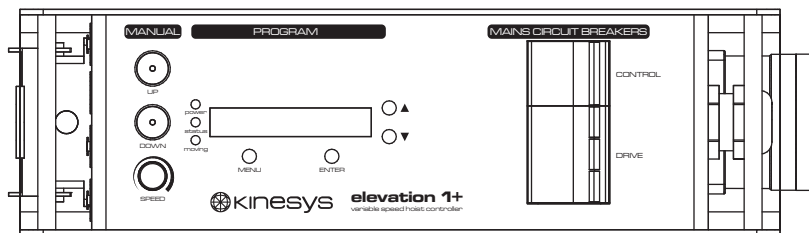


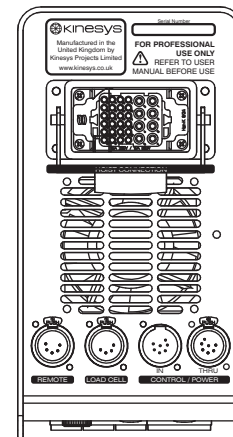
elevation 1+

variable speed hoist controller

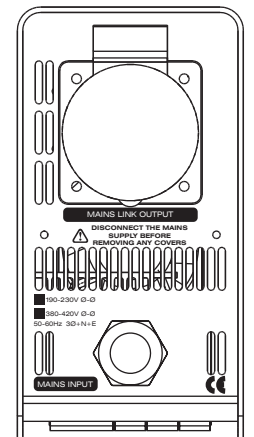
ELEVATION 1+ IS THE INNOVATIVE VARIABLE SPEED CHAIN HOIST CONTROL SOLUTION FROM KINESYS. THIS CONTROLLER IS UNIQUE IN ITS ABILITY TO OPERATE A HOIST WHICH IS ALSO CAPABLE OF BEING USED WITH A STANDARD FIXED-SPEED MOTOR CONTROLLER OR 'PICKLE'.



front panel view



hoist and data connections



mains connections

features

elevation 1+ transforms a hoist into a fully functional variable speed device offering precise positioning and speed control.

elevation 1+ may be controlled by kinesys' **K2** and **vector** software packages, and interfaces with other kinesys products for a totally integrated show control system. For smaller shows a simple handheld controller allows a number of preprogrammed cues to be replayed at any speed and with millimetre accuracy.

elevation 1+ is available in both US and European voltage variants, and can be used with a variety of industry-standard chain hoists, including CM Lodestar, Liftket and GIS.

- large, bright 7-digit LED display shows status and position information
- LED indicators show power, system and move status
- intuitive menu system allows device configuration, manual operation and limits override
- rugged manual control buttons allow local operation for rigging and testing
- speed control to set manual move speed
- remote control input allows full variable speed operation using a kinesys remote control, or fixed speed operation with a standard 'pickle' (with adapter cable)
- microprocessor-controlled fan provides cooling only when required, reducing fan noise when **elevation 1+** is in standby
- analogue load cell input for integral or external load cells
- independent circuit breakers for control and motor
- 32A mains input and output connections allow 'daisy-chain' operation
- data input and through connections carry RS485 data, category 2 emergency stop control, enable input and backup power supply. Up to 16 units may be connected on a single data line using 3-pair cable, subject to cable size and length constraints
- robust multipin connector for hoist connection - includes motor, brake, limit switch and encoder connections
- multiple fixings for hook clamps or half-couplers allow a variety of mounting orientations
- lightweight aluminium case with durable stove-enamelled finish

Manufactured in the
United Kingdom by
Kinesys Projects Limited

www.kinesys.co.uk

specifications

POWER SUPPLY

- 3-phase + neutral + earth 50-60Hz
operation without neutral is possible depending on hoist type and configuration
- 190-230V phase-phase 9.1A maximum (US/Japan)
- 380-420V phase-phase 5.5A maximum (Eur/Aus)

MAINS INPUT

- 2m trailing cable with 5-pin 32A 'Ceeform' type plug to IEC309 (red for European version; blue for US version); alternative connectors on request

MAINS LINK OUT

- 5-pin 32A 'Ceeform' type socket to IEC309, to match input connector

PROTECTION

- 3-pole 10A (Euro) or 16A (US) type C MCB for variable speed drive and hoist supply
- 2-pole 2A type C MCB for control transformer

CONTROLS

- MENU, ENTER, UP and DOWN menu system interface
- manual UP and DOWN operation buttons
- speed control for manual operation

INDICATORS

- power (blue); status (bicolour) and moving (green) LEDs
- 7-digit 14mm high brightness blue LED display

HOIST CONNECTION

- 8+24 pin 'Harting' type rectangular industrial connector for combined motor, brake, limits and encoder connection

HOIST INTERFACE

- Motor: 380-420V (Euro) 190-230V (US)
- Brake & control: 190-230V / 380-420V (Euro) 190-230V (US)
- Encoder: 5V line driver or 24V push-pull interface (link selectable in elevation 1+)
- Limits: volt free contacts (24V DC switching)
- Contactor and brake switching: 24-120V AC or DC

CONTROL CONNECTORS

- 7-pin male XLR-style connector with female link out

DATA

- opto-isolated bidirectional RS485
- emergency stop input
- 24V enable input
- 24V power supply for control and distribution equipment

REMOTE CONTROL CONNECTION

- 5-pin female XLR-style connector
- volt free contacts (24V DC switching) for fixed speed operation; variable speed operation via kinesys controller

LOAD CELL CONNECTION

- 4-pin female XLR-style connector
- 5V or 24V power supply; 5V analog input for load cells with integral electronics
- load cell input also available via hoist connection to special order

ENCLOSURE

- 3mm aluminium; RAL5011 stove enamelled finish

ENVIRONMENTAL

- IP30

OPERATING TEMPERATURE

- 0 - 55°C (32-131 F)

COOLING

- microprocessor-controlled forced air cooling

DIMENSIONS

- 424 x 241 x 126mm (16.7 x 9.5 x 5.0 inches) excluding cables, connectors and mounting hardware

WEIGHT

- 10kg (22lbs)

**specifications quoted are for 2.2kW / 3.0HP version
other sizes up to 5.5kW / 7.5HP available on request**

accessories

- **array pd-es / mini array pd-es** power distribution system with Ethernet interface and category 3/4 emergency stop controller
- **transform-485** 2-port Ethernet interface
- **array 485 / array IP** RS485 / Ethernet data distribution
- **K2** 3D motion control software
- **vector** pc-based control software
- **rigger** handheld controller

- kinesys variable-speed remote control
- adapter for industry-standard Lodestar 'pickle'
- 32A power cables
- 7-pin data interconnection cables
- 5-pin remote control extension cables
- hoist extension cables
- hook clamps, half-couplers and safety bonds
- water resistant cover for temporary exterior operation