

# MECHAN CONTROLS

## 'F' SERIES

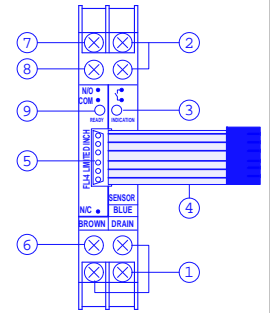
### FLI-2 & FLI-4

## LIMITED INCH

## INSTALLATION GUIDE

### 1) PRODUCT IDENTIFICATION

- 1 Safety Switch Sensor Input
- 2 Indicator Output (N/O Volt Free Contact for Safety Switch)
- 3 Gate Open Indicator (Red LED)
- 4 Control Bus Connector Strap
- 5 Control Bus
- 6 N/C Contact From Limited Inch Button
- 7 N/O Contact From Limited Inch Button
- 8 Common Contact From Limited Inch Button
- 9 Inch Button Ready Indicator (Green LED)



### CAUTION!

This information is designed to help suitably qualified personnel install and operate Mechan Safety Switch equipment. Before using this product, read this guide thoroughly along with any relevant European and/or National standards (e.g. Machinery Directive 89/392/EEC and it's amendments, Provision and Use of Work Equipment Regulations, further information can be obtained from Mechan Controls Limited or the DTI European Hotline ) \*\*\*\*\* Keep this guide for future reference. \*\*\*\*\*

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### 2)

### DESCRIPTION

The F SERIES Limited Inch Unit is a single channel extender module (like the FX1) with a built in override facility, for use with the F SERIES safety switch system. The FLI, like the FX1, has one safety switch sensor input and one volt free indicator output and is connected along with other extender modules to the FM1 Control Module. The safety switch sensor connected to the FLI can be overridden for a **short, pre-set period** by pressing the limited inch button when connected as shown below.

When the Limited inch button is pressed, the control relays (13/14 and 23/24) on the FM1 will close providing that **all other safety switches on the FM1 Are closed**. The control contacts will remain closed until:

- 1) Any other F Series safety switch sensor connected to the same control module is opened.
  - 2) The maximum override time is reached (2 or 4 seconds, see label on the side of the FLI)
- Or 3) The limited inching button is released.

Electronic circuitry within the FLI prevents the continuous running of the machinery whilst the gate is open. There is a delay of approximately 1 second from releasing the button to the FLI being ready to allow another cycle of inching

### 3)

### SPECIFICATION & INSTALLATION

#### INSTALLATION NOTES:

- 1 Limited Inch Button contacts connected directly to the FLI must be suitable for Low Voltage & Low Current applications.
  - 2 The FM1 must be set to Automatic Re-set (link across 2 and 3)
- or

The Limited Inch Button must have an additional N/O contact which closes the reset circuit when pressed. (See over for connections)

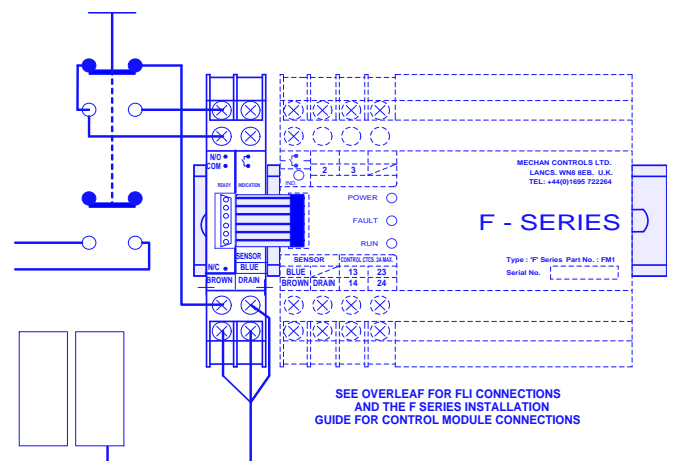
- 3 Maximum override time is printed on the side of the FLI.
  - 4 Indication
- |                    |                     |
|--------------------|---------------------|
| RED LED:           | Gate Open Indicator |
| Volt Free Contact: | Gate Open Indicator |
| GREEN LED:         | Limited Inch Ready  |

LIMITED INCH  
BUTTON  
(Gold Flashed  
Contacts)

TO INCHING  
CIRCUIT

GATE SWITCH  
TO BE  
OVERRIDDEN

#### CONNECTIONS



#### SPECIFICATIONS:

- |                            |   |
|----------------------------|---|
| <b>Override Time</b>       | FLI-2 2 Seconds                             |
|                            | FLI-4 4 Seconds                             |
| <b>Limited Inch Button</b> | Gold Flashed Contacts (Button not supplied) |

- |                   |                        |
|-------------------|------------------------|
| <b>Dimensions</b> | 90 x 17.5 x 59 (HxWxD) |
| <b>Protection</b> | IP20                   |
| <b>Mounting</b>   | 35mm DIN Rail          |

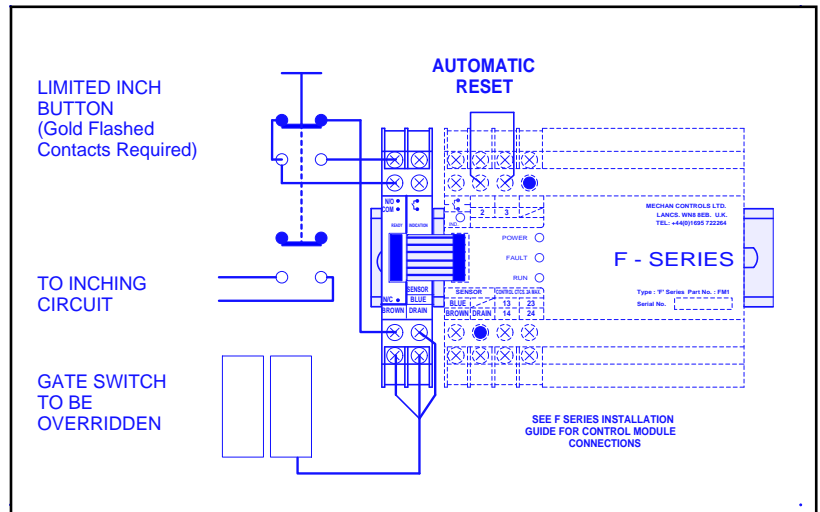
# Mechan Controls Limited

## Electronic Safety Switches

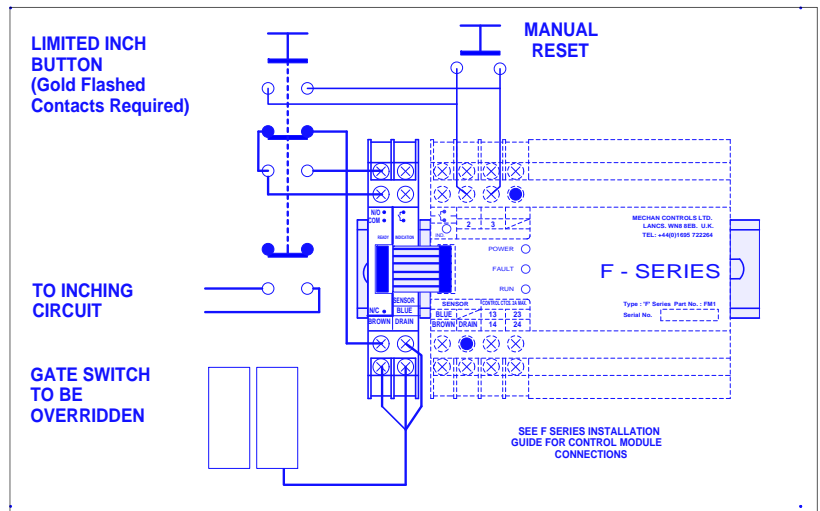
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**AUTOMATIC RESET:**

- 1 Place a link between terminals 2 and 3 on the main control module.
- 2 With the 'Limited Inch Guard' Open, pressing the Limited Inch Button will close the control relays 13/14 and 23/24 until the full time has elapsed or the button is released.

**MANUAL RESET:**

- 1 When a reset button is being used with the main control module for manual reset operation, an additional contact is required on the Limited Inch Button to close the reset circuit (terminals 2 and 3) when the Inch Button is pressed.
- 2 With the 'Limited Inch Guard' Open, pressing the Limited Inch Button will close the control relays 13/14 and 23/24 until the full time has elapsed or the button is released.

**MANUAL RESET and CONTACTOR MONITORING:**

- 1 When the 2 and 3 terminals are being used for a reset button (as above) and monitoring external contactors an additional contact is required on the limited inch button in parallel with the reset button to close the reset circuit when the Inch Button is pressed.
- 2 With the 'Limited Inch Guard' Open, pressing the Limited Inch Button will close the control relays 13/14 and 23/24 until the full time has elapsed or the button is released.

