# Type: E-FLC2

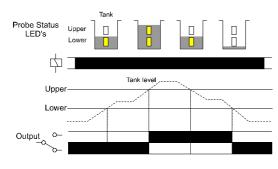
## Floatless Level Controller

- Designed to monitor the level of a liquid within a tank or container
- 2 levels of monitoring Low and High levels
- □ Fixed Operate and Release Resistance
- □ Up to 1km distance between controller and probes
- ☐ Built in Surge Arrestors protect each probe input against lightning strikes
- ☐ Unique LED indication of probe/tank level status
- □ Additional LED indication for supply and relay output status
- 1 x SPDT relay output

Dims: W. 70mm Terminal Protection to IP20



## <u>FUNCTION DIAGRAM</u>



### INSTALLATION AND SETTING



Installation work must be carried out by qualified personnel.

- BEFORE INSTALLATION, ISOLATE THE SUPPLY
- Connect the unit as shown in the diagram below. For metal tanks, the COM probe can be connected
  to the tank itself. For non-metallic tanks, ensure the COM probe is located below the other two
  probes (i.e., at the bottom).
- NOTE: Terminal 1 (COM) must be connected to Earth at all times
- Apply power and the green "power on" LED will illuminate.
- The LED's on the front of the controller will illuminate according to the level of the liquid within the tank
- When the Lower and Upper probes are covered by the liquid, both yellow LED's will illuminate and
  the output relay will energise. The relay will remain energised until both probes are uncovered. Both
  yellow LED's will extinguish. A red LED is provided to indicate the status of this relay (illuminated when
  energised).

Note: For testing purposes only (and with the tank empty), it is possible to energise the output relay by connecting a N.O. push button between COM and Upper probe. The relay will de-energise when the push button is released.

This unit should be installed in conjunction with the latest wiring regulations and practices (IEE, etc)

## TECHNICAL SPECIFICATION

Supply voltage Un: 230V AC 50/60Hz Supply variation: 85 - 115% of Un Isolation: Over voltage cat. III Rated impulse

withstand voltage:
Power consumption:

 $\approx 4 \text{ VA}$ 

4kV (1.2/50μS) IEC 60664

Interelectrode voltage:  $\approx 8$ Maximum current:  $\approx 5$ 

≈ 8 V AC ≈ 5mA AC

Function resistance

Operate:  $\approx 4k\Omega$  min. Release:  $\approx 15k\Omega$  max

Time delay

Operate:  $\leq 80 \text{mS}$ Release:  $\leq 160 \text{mS}$ 

Distance between probes and relay:

1km max.

Surge Protection (applied to each probe input when referenced to COM)

Spark-over voltage: 90V DC ±20V Impulse discharge

current: 10kA (8/20µS waveform)

Ambient temp: -20 to +60°C Relative humidity: +95%

Output: 1 x SPDT
Output rating: AC 1 250V AC 8A (2000VA)
AC 15 250V AC 2.5A
DC 1 25V DC 8A (200W)

Electrical life:  $\geq 150,000$  ops at rated load Dielectric voltage: 2kV AC (rms) IEC 60947-1 Rated impulse withstand voltage: 4kV  $(1.2/50\mu S)$  IEC 60664

Housing: Grey fla

Grey flame retardant Lexan UL94 VO ≈ 170ø

Weight:  $\approx 170g$ Mounting option: On to 35mm symmetric DIN rail to BS5584:1978 (EN50 002, DIN 46277-3)

Terminal conductor size:  $\leq 2.5 \text{mm}^2 \text{ stranded}$  $\leq 4 \text{mm}^2 \text{ solid}$ 

Approvals: Conforms to IEC. CE and Compliant

#### OPTIONS

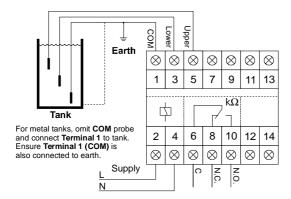
1. The operation of the relay can be inverted such that the relay de-energises when the lower and the upper probes are covered by the liquid.

Please specify option when ordering.

## ACCESSORIES

Please refer to latest catalogue for probes, probe holders, etc

#### CONNECTION DIAGRAM



MOUNTING DETAILS

85

45

Insert screwdriver to release clip

Broyce Control Ltd., Pool Street, Wolverhampton, West Midlands WV2 4HN. England

E-FLC2-1-A