# TYPE QM-BT CONTROL BOX
## Single Phase Pumps 0.25-1.5kW (2.4-12Amp)



Designed for the control of 230/1/50 pumps in clean water applications such as boreholes, wells and sumps; offering protection against dry running and motor overload. Five models cover motor sizes up to a nominal 1.5kW, min 2.4 to max 12 Amps.

| MODEL | AMPS MAX | DIM. CM H x W x D | WEIGHT KG |
|---|---|---|---|
| QMBT-035 | 3.0 | 175 x 200 x 90 | 0.9 |
| QMBT-05 | 5.0 | 175 x 200 x 90 | 0.9 |
| QMBT-10 | 7.0 | 175 x 200 x 90 | 0.9 |
| QMBT-15 | 10.0 | 175 x 200 x 90 | 0.9 |
| QMBT-20 | 12.0 | 175 x 200 x 90 | 0.9 |

## FEATURES

BOX:
Rugged thermoplastic material with 5 cable glands in base. IP40 protection as standard - IP55 on request.

LID:
*Isolate from power before opening lid.*
Secured by 4 x retained screws.
To access the box, loosen the top two screws and completely unscrew the bottom two. The lid will then swivel upward from the base.
Amber Light Rocker Switch = Mains ON/OFF. Also incorporating thermal protection switch and RESET.
Green Light = Pump running.
Red Light = Low level cut-out.

INTERNALS:
30VA Transformer: To reduce 230V supply to 24Vac for level control safety.
Relay: For level controls.
Timer switch:
'TIMER' = 10 minute auto duration.
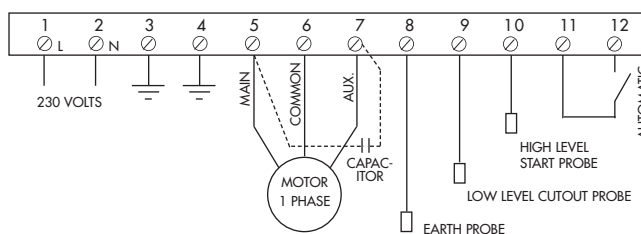'CL' = Level Control.

## STANDARD OPERATION

In standard operation, the QMBT controller utilises probe electrodes operating on 24Vac to control level. Normally three electrodes are required; one upper, one middle and one lower or earth electrode. In certain installations (e.g. borehole pumps) it is possible to use two electrodes, with the pump itself acting as the earth.



## ALTERNATIVE TIMER OPERATION

The QMBT controller is also fitted with a switched timer unit which allows for simple automatic control using one electrode. The single electrode operates as a low level cut-out, and after 10 minutes the timer switch will attempt to restart the pump. If the liquid level has not risen, the switch will attempt to cut in every 10 minutes.

### GENERAL WIRING LAYOUT