

# AquaTech Pressmain

LEVEL CONTROLS AND ACCESSORIES



## 'LSM' SERIES

# Level Controls and Accessories

## LSM Series

---

### OVERVIEW

These versatile units offer an easy solution to many water level control and alarm functions.

They can be used for emptying, filling, or level warnings within storage tanks ( ie. low or high level ) amongst many other applications.

These units can be remote mounted up to 15 metres from the sensing point with separate level sensors or be supplied with probes attached and can be tank mounted via a ½" BSP boss.

The LSM-P3 series come assembled with 3 sleeved 4mm diameter 303 stainless steel probes, at a length of 1 metre, which can be cut to suit most tanks.

Units are supplied in a weatherproof case to IP55 Standard BS5490 (1977) with cable glands which accept cables from 6 to 8 mm in diameter; other sizes on request.

LSM-A units have a single output relay while LSM-B units have twin output relays

Supply voltage: Standard 240V AC 50 - 60HZ 1 Ø, from an isolating switch and 2 Amp fuse - NOT SUPPLIED.

---











### TYPICAL APPLICATIONS

- The LSM series can be used for:
  - High or Low Water alarm in 1 or 2 tanks,
  - Low water alarm with separate low water cutout for pressure boosting equipment (with adjustable restart delay)
  - Filling or draining 1 or 2 tanks between 2 levels
  - Filling or draining a tank with a set level and an adjustable run-on timer
  - Low level protection for pressure boosting equipment with override switches (LSM-TT-B)
- 

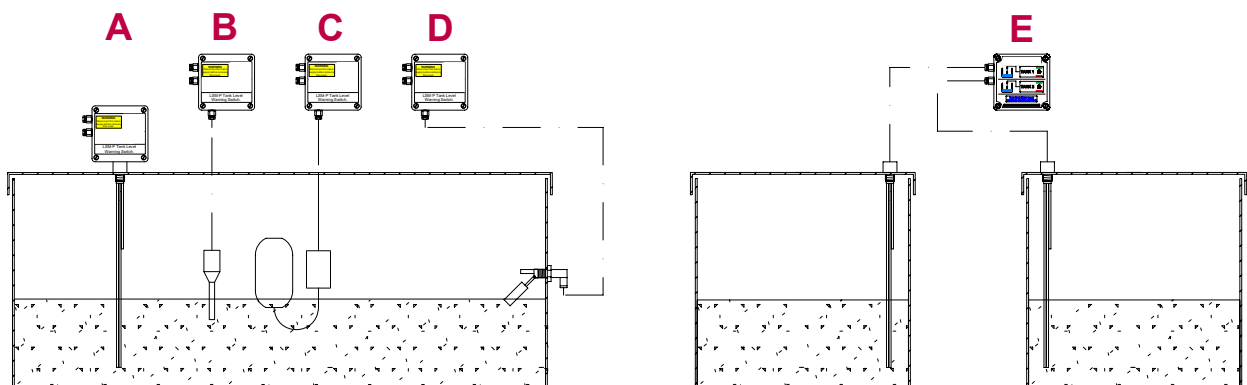
### FEATURES

- Built in stainless steel probes (LSM-P3) in a phenolic resin boss with self-cleaning properties, to keep probes free of calcium salts and other water-borne solids
- Direct tank mounting via ½" BSP parallel thread boss (LSM-P3)
- Built in timer circuit which allows either delayed on or delayed off operation of the output relay(s), by the 0 - 255 second adjustable timer
- Operating mode DIL switches provide selection of either energised or de-energised operation of the output relay(s) in any control mode
- Adjustable sensitivity control which enables the unit to be used in many chemical solutions and water applications
- Internal power link makes line voltages available for use on the (250V AC 2 Amp rated) output relay contacts for low power switching applications
- Robust all PVC construction allows use in hostile and humid conditions
- Wide operating temperature range, 2°C to 50°C ambient

## GENERAL SPECIFICATIONS

UNIT TYPE		GENERAL DESCRIPTION	EXAMPLE
LSM		Level switch control in weather proof box (IP55) for use with auxiliary probes or level switches below - 2 cable glands and wall mounting brackets fitted.	B, C, D
LSM-P3		LSM control box fitted with a 1/2" BSP parallel boss suitable for tanktop installation - 3 x 1 metre probes fitted.	A
LSM-TL		As LSM-P3 with addition of audible alarm & fitted with 1 mtr probes (cut to suit). Ideal for high level tank alarm.	
LSM-TT-B		LSM Control Box designed for low level alarm or cutout for twin or split section breaktanks. Includes front mounted override switches to enable one tank to be drained.	E
RA 24/240		Remote Alarm with audible buzzer and light (wall mounting). Either 240VAC or 24VAC/DC	
LWP3		Water probe for tank use. Tank lid mounting supplied with 10m of cable.	B
MSL-104		Stainless Steel level switch, tank side external entry, requires a 1/2" BSP boss (not supplied). Suitable for water, sewage, acid & alkaline liquids	D
MSF-100		Plastic Float Switch, tank lid mounting ideal for water & sewage. Supplied with adjustable counter-weight & 10 metre cable.	C
SNE-304		3 stainless steel probe electrode unit, with 1/2" BSP tank lid mounting. Probes are 1m long and should be cut to required length	E
MSL-202		Plastic level switch, compression type - external mounting. WRAS approved.	D

## TYPICAL INSTALLATION EXAMPLES



## INSTALLATION

To install the level switches LSM-P3 / LSM-TL or the SNE-304 probe unit in a tank lid or sidewall, either: -

a) drill a 20mm diameter clearance hole in the top of the tank and use the back nut and washer provided to ensure water tight seal, or

b) install in a ½” BSP boss (or glue in the supplied backnut) with a parallel thread into the tank and ensure a water tight seal.

In the case of use with a pre insulated tank, a suitable non insulated “pad” area should be used.

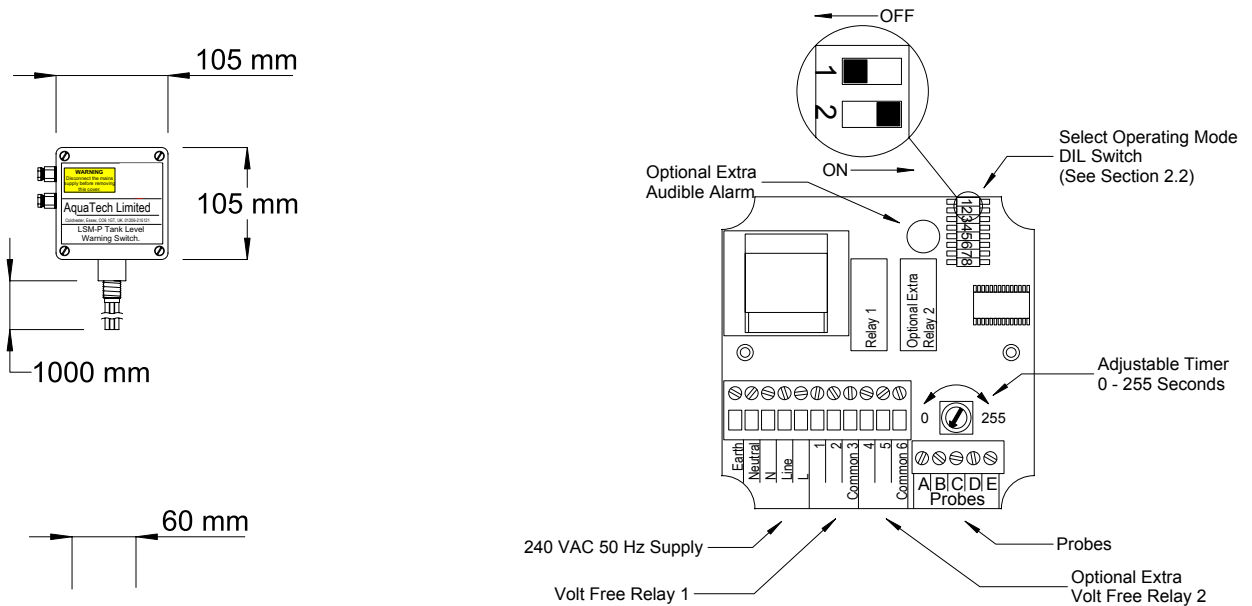


fig. 3. LSM level switch circuit board layout showing power supply, volt free relay and probe connections, plus location of DIL switches and adjustable timer.

Probe Letter	Probe Function
A	Only used for Relay 1 functions when switching between two levels
B	Relay 1 functions
C	Only used for Relay 2 functions when switching between two levels
D	Relay 2 functions
E	Common earth Reference

CONSTRUCTION STANDARDS LSM LEVEL CONTROLS			
COMPONENT	MODEL SERIES	STANDARD/CLASS	REMARKS
Enclosure	PVC	IP55	
Microprocessor	LSM	93/68/EEC	In House Software
Quality System	ISO 9001	BSI Registered	CERT No. FM33090
CE Marked	EMC Directive, Safety of Machinery		Registered with BSI

The information in this specification is correct at time of issue; as AquaTech Pressmain design and development programmes are continuous, we reserve the right to make any changes to this specification without prior notice.

# AquaTech Pressmain

Head office  
AGM House, London Road, Copford, Colchester. CO6 1GT  
T: 01206 215121 F: 01206 215131

Manchester Office  
Dolphin House, 130 Princess Road, Manchester. M16 7BY  
T: 0161 226 4727 F: 0161 226 5848

E: [info@aquatechpressmain.co.uk](mailto:info@aquatechpressmain.co.uk)  
W: [www.aquatechpressmain.co.uk](http://www.aquatechpressmain.co.uk)

Leaders in the design, manufacture and assembly of packaged fluid pumping equipment and control systems.  
Applications: Cold Water Supply; Fire Fighting; Heating & Chilled System Pressurisation; Tank Level Monitoring.