

Spray Wash Cleaning

Automatic pH and Redox Electrode Cleaning



Features

- Automate electrode cleaning
- Reduce maintenance time and costs
- Improve Electrode life
- In-line and dip options available

pH measurement of many industrial processes and waste streams can be difficult to measure reliably over extended time periods without some form of maintenance.

LTH Electronics can offer spray wash cleaning adapters for their pH electrode systems to reduce maintenance and improve electrode life in applications where a pH or Redox electrode bulb is prone to coating.

They provide an effective method of cleaning the electrodes in both in-line and dip applications.

The spray wash fittings have a full coned spray nozzle which is mounted under the pH or Redox electrode bulb with a cleaning solution of 4 litres per minute being applied at a pressure of 4 Bar.

The spray wash fittings can be supplied with an 18 litre isolating break tank with ball valve and a pump supplied in a wall mounting enclosure.

The break tank incorporates a simple ball float valve to comply

with local bylaws and will isolate the spray wash system from the water supply.

The electrically operated pump provides a suitable wash supply via a positive displacement 3 chamber diaphragm system.

The pump incorporates a check valve to prevent reverse flow and will self prime up to a vertical height of 2.5 metres.

A pressure switch will cut off the pump in an over pressure situation and a thermal cut out protects the pump motor.

The pump is housed in a wall mounting polycarbonate enclosure with electrical connections for the pump power supply and the liquid connections are made via push-in tube connectors.

Tubing should be ordered extra as required.

When the spray wash system is used with either the LTH MPD53 pH monitor or HPT63 Advanced pH transmitter it is possible to control the operation of the cleaning cycle.

It is possible to configure one of the set point relays as a Clean output. The Clean duration, Recovery time and Interval period are all programmable via the front keypad.

During the cleaning cycle it is possible to take the LTH MPD53 pH monitor or HPT63 Advanced pH transmitter Offline at which point the current output is held and the control relays are de-energised.

The Clean duration can be set to between 5 seconds to 10 minutes, the interval between cleaning operations to between 5 minutes to 48 hours and the Sensor recovery time (from end of cleaning to returning to an On-Line state) between 5 seconds to 10 minutes.

A further configuration allows the Set point relays to delay the clean operation should they be in a condition where chemical dosing is taking place.

This is essential where pH control must take priority over cleaning as during the cleaning operation the probe will not be measuring the process solution

Specification

Fittings

Maximum Temperature:	90 °C For Part No.'s 2117, 2118, 2136, 2137 and 2138 50 °C for Part No.'s 2120, 2134, 2135, 2119 and 2120
Maximum Pressure:	3 Bar for Part No.'s 2120, 2134, 2135, 2119 and 2120
Wetted Materials:	Polypropylene, Nylon Tubing For Part No.'s 2117, 2118, 2136, 2137 and 2138 PVC, Polypropylene for Part No.'s 2120, 2134, 2135, 2119 and 2120
Cleaning Solution:	Flow: 4 Litres per minute Pressure: Maximum 4 Bar

Pump

Pump Design:	Positive displacement 3 chamber neoprene diaphragm, nylon pump head, EPDM valves, Stainless steel spring
Check Valve:	2 Way, 2 Metre head forward flow. Prevents reverse flow
Motor:	Permanent magnet, thermally protected.
Voltage:	Nominal 230vAC supply required
Pressure Switch:	Adjustable shut off (Range: 80-100 psi) Factory set at 100 psi, turn on at 75 + 5psi
Prime:	Self prime to 2.5 Metres vertical height
Connectors:	Push in type, 10mm diameter acetyl copolymer body, Nitrile seal, Stainless steel grip.
Tubing:	10mm Nylon recommended.

Pump Enclosure

Material:	Polycarbonate
Dimensions:	278 x 278 x 150mm Deep

Tank

Material:	Polypropylene
Dimensions:	460 x 320 x 350mm Deep
Mains Water Inlet:	0.5" BSP Connection
Outlet:	10mm Diameter Push in type connector
Overflow:	0.75"

pH and Redox Electrode Cleaning assemblies

Type No	Part No	Description
PME24	2134	PME24 1.5" plain PVC tee / cross fitted with spray wash nozzle. Wetted materials: PVC, polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
PME24 (0.5"BSP)	2135	PME24 1.5" plain tee / cross with 0.5" BSP fittings and fitted with spray-wash nozzle. Wetted materials: PVC, polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
PME22 Spray	2136	Spray wash assembly for use with the PME22 dip electrode systems. Wetted materials polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
S400 Spray Wash Head	2137	Spray wash assembly for use with the S400 0.75" NPT threaded electrode systems. Wetted materials polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
S400 Spray Wash Head	2138	Spray wash assembly for use with the S400 1" NPT threaded electrode systems. Wetted materials polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
Quick Release Spray Wash	2120	S400 1.5" BSP Quick release PVC tee assembly with spray wash nozzle for S400 style pH electrodes. Wetted materials: PVC, polypropylene. Includes fittings and wash tubing. Requires 4 l/m wash solution at 4 Bar max.
Pump	2122	Wall mounted pump unit complete with tube connectors and cable gland entry and 1 x tube reducing connector.
Tank	2123	Free standing break tank drilled for accessories, but not assembled. Supplied with 0.75" overflow, ball valve assembly & outlet connector.
Tubing	108/362	10mm Nylon tubing for use with Spray wash Tank & pump. (Price per Metre)



These products comply with current European Directives

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