The MS1 EX float switch can be used in a certified, intrinsically safe circuit electrical system for the control and regulation of liquid levels in Zones 0, 1 and 2 Ex-areas. It can also be used in the presence of gas groups IIA, IIB and IIC, where there is a risk of explosion when these are in contact with flammable materials and exposed to temperatures in the range T1 - T6.

**Installation:**

The level controller is freely suspended from a highly flexible, heavy-duty cable and set at the required level “On, Off and Alarm”. The position of the level controller changes with the rise and fall of the water level. A micro switch opens and closes the circuit, switching a pump on or off or triggering an alarm. One level controller is required respectively for each switching impulse. It is very important to ensure that the float switch can hang freely, does not lie on the ground, can operate without interference by shaft walls, piping or fittings etc. and is not directly in the liquid flow. The power cable of the float switch should be carefully laid along its entire length to prevent any risk of mechanical damage. Also ensure that moisture cannot penetrate cable ends. To avoid the risk of the build up of an electrostatic charge, the casing of the float switch must be connected to the equipment’s potential equalization system using the potential equalization conductor in the connection cable.

**Electrical installation:**

**Important:** For installation in EX-Zones 0, 1 and 2 the use of an intrinsically safe electrical circuit relay is mandatory. Ensure the electrical unit is switched off before connecting the switch to the power supply, and prior to any repair or maintenance work. Switches should only be installed by an appropriately qualified electrician. Please install in accordance with the instructions provided in the table to the left.

**Maintenance:**

If level controllers are installed and assembled correctly, they will function for years and will require next to no maintenance. Depending on the degree of soiling in the medium, it may be necessary to check the system occasionally and clean float switches as necessary.