Waterpilot FMX11

The pressure sensor for hydrostatic level measurement in freshwater applications



Water is the world's most important natural resource. As such it demands proper stewardship. One of the most simple yet effective ways to manage water levels is through hydrostatic level measurement. Hydrostatic measurement of water is simple to install, maintain and is not impacted by foam, turbulence or atmospheric conditions such as wind. Although it is seemingly abundant in supply, only a small fraction can be used as is. Before water can be used for drinking, first it must be cleaned, softened, desalinated or sterilised.

Level sensors based on hydrostatic pressure measurement measure the level or filling height in a vessel in accordance with the following principle: A liquid generates, through its density and the force of gravity, a weight force which increases with the filling height. This weight force, increasing proportionally with the filling height, is called the liquid column, and is not dependent on, for example: foam, turbulence or vessel fittings. Hydrostatic pressure sensors measure the height-dependent weight force, acting from a liquid column, as a hydrostatic pressure.





People for Process Automation

Hydrostatic level measurement has enjoyed strong popularity for many years and represents by far the most frequent form of electrical level measurement. Above all, it is notable for its high reliability and its very low installation cost. Hydrostatic level measurement is therefore seen as particularly simple and robust by those that use it.

Typical applications:

The Waterpilot FMX11 is designed for hydrostatic level measurement in the environmental industry. Through simplicity of specification, purchase and installation, it is well suited for freshwater applications such as wells, storage tanks, lakes and rivers. With drinking water certifications such as NSF-61, ACS, KTW, DVGW the FMX11 meets regional regulatory requirements as well. The looped powered fixed 4 to 20mA analogue output makes the FMX11 easy to integrate into new or existing control systems. Simply wire it into your I/O and set the desired span in your control system.

The required water quality standards depend on where the water exists within the production process (e.g. cooling, boiler feedwater, or process water).

Technical Information:

- Temperature: -10 to +70°C (14 to 158°F)
- Measuring range: 0 to 2bar/20m H₂0 (0 to 30psi/67ft H₂0)
- Cable Length: 6 to 30m
- Accuracy: up to ±0.35%
- Drinking water approvals: ACS, KTW, NSF61, DVGW
- Certifications: cULus

The water quality depends on the composition of the raw water and the water treatment process that must be performed (filtration, softening, desalination, etc).

Ultra-pure water as used in the food, pharmaceutical and electronics industry must meet strict purity standards and is increasing in popularity.

Benefits at a glance:

- Simple and reliable transmitter for various drinking water applications
- Easy installation, commissioning, and operation
- Orderable with flexible measuring ranges and cable lengths tailored to fit your application
- Robust construction for durable long-term service
- Suitable for surface water monitoring in rivers and lakes as well as level monitoring for drinking water production, e.g. in water towers, dams, gauging stations
- Compact size d=22mm (0.87"), makes this an excellent choice for applications in bore holes and small diameter stilling wells.
- Simple specification and ordering

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