



Driving
TECHNOLOGICAL
EXCELLENCE

**MAGNETIC LEVEL
INDICATOR**

Petronash Magnetic Level indicator is used to measure the level of fluids using the principle of magnetic field coupling. This is a low maintenance indicator and a great alternate to sight glass and other conventional level indicators in which low visibility, leaks, glass breakage and bursting at elevated temperature are major problems.

Magnetic Level Indicator (MLI) is a safe, simple, and reliable way to measure fluid level inside a tank. These visual indicators are an alternative to sight glasses and provide non-invasive, low maintenance, cost-effective level solution. The MLIs combine the principles of buoyancy and magnetism to provide 100% accuracy in measurements. The chamber, Float, and level indicators are available in a variety of materials and pressure ratings.

WORKING PRINCIPLE

- ▶ Magnetic level Indicator uses the principle of magnetic field coupling to provide fluid level information. Magnetic coupling allows an indicator to measure levels without direct contact between the indicator and the fluid in the vessel.
- ▶ In an MLI, the magnets within a float and an indicator are magnetically coupled. The float, located inside a chamber, tracks the surface of the liquid. A magnet or magnet assembly inside the float creates a magnetic field, which penetrates the chamber wall to couple with the magnetic field created by the magnets in the indicator flags that display the fluid level.

FEATURE

- ▶ No process liquid in contact with level Indicator
- ▶ Single chamber measurement over 6m without staggering chambers
- ▶ Maintenance-free once installed because the indicator never touches the process fluid
- ▶ Visible level indication at distances up to 100 feet (30 meters) or greater
- ▶ Improved safety due to absence of fragile glass which completely eliminates the number of potential leak points



TECHNICAL DATA

CHAMBER

- ▶ Chamber MOC: Any metallic construction
- ▶ Fluid port connections will be burr free to ensure smooth float movement
- ▶ All weld joints will be 100% DP tested
- ▶ Hydrotesting will be done

FLOAT

- ▶ Standard specific gravity starts from 0.6
- ▶ Float will be designed for each specific gravity with high accuracy
- ▶ Float failure indication is available
- ▶ Float protection has been provided to avoid float material scratch or damage
- ▶ All weld joints will be 100% DP tested
- ▶ Hydrotesting will be done

LEVEL INDICATOR

- ▶ Indicators: Plastic Rollers/ Metallic Flappers
- ▶ Dual scale will be provided
- ▶ Separate provision will be provided to clamp pipe and level indicator
- ▶ Normally red colour will indicate liquid level, white colour will indicate empty level & Black or yellow colour will indicate float failure. Other colour options available.

PRESSURE RATING: upto 25 Bar.g

TEMPERATURE RANGE: -10°C to 100°C

C/C DISTANCE: As per client requirement

GASKET: SS 316L spiral wound + Graphite

MOC

Chamber	CS / SS316 / SS316L / others on request
Float	SS316/316L / Titanium / Hastelloy / Monel / Inconel Others
Indicator & Scale	SS304/SS316

PROCESS CONNECTION

The process connections are Flanged as standard and available connection sizes are shown below

- ▶ NPT connection: 1/2", 3/4" & 1"
- ▶ Flange connection: 1/2", 3/4", 1", 2" & 3" rating up to 2500#
- ▶ Other connections on request

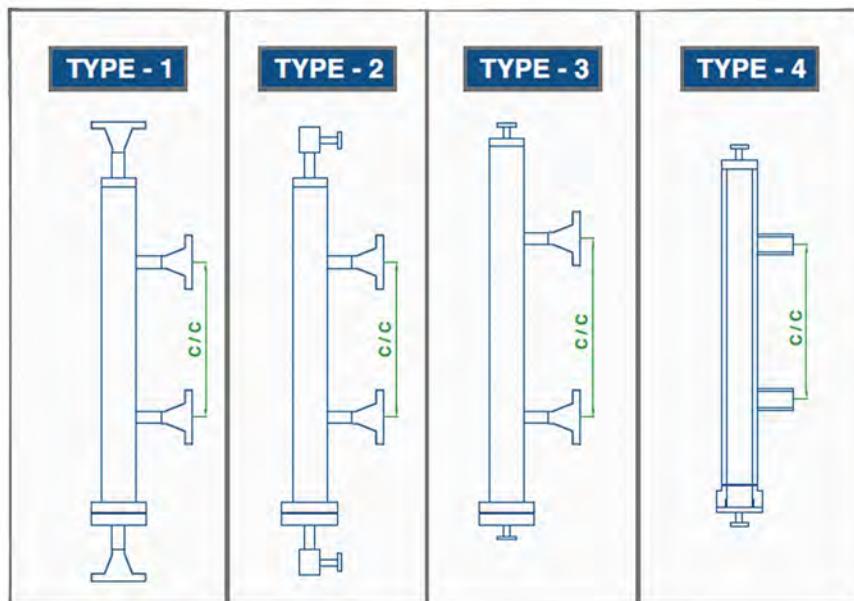
VENT & DRAIN CONNECTION

- ▶ NPTF: 1/2" & 3/4"
- ▶ Isolation valves for vent and drain are optional
- ▶ Other connections on request

CERTIFICATION

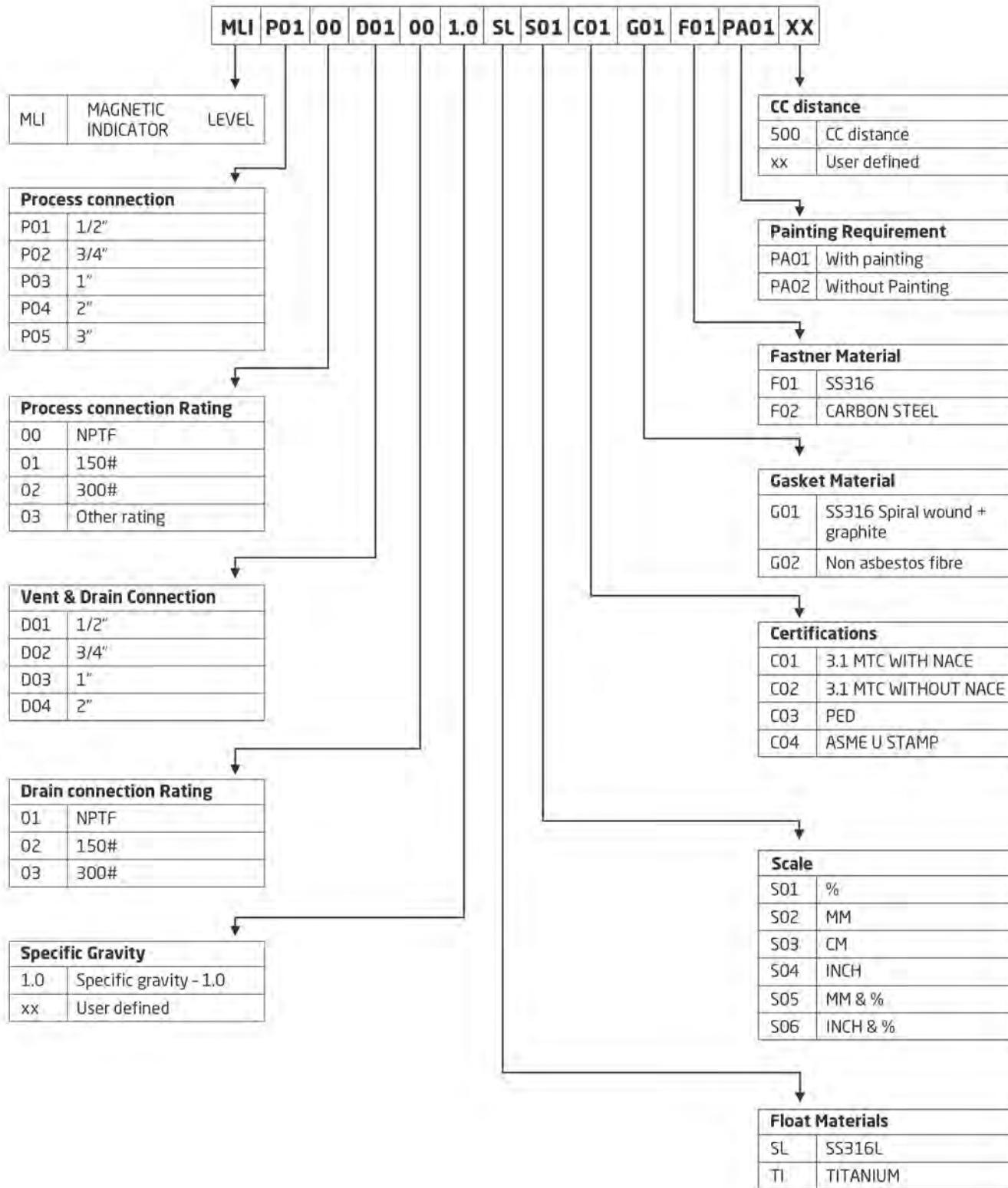
- ▶ COC
- ▶ ASME U / PED / Other certification on request
- ▶ 3.1 MTC for wetted parts
- ▶ NACE COMPLIANCE
- ▶ Hydro test / Performance test

TYPES OF MOUNTING



Note: Customised configurations available based on requirements

ORDERING INFORMATION AND MODEL DE-CODIFICATIONS



Note: Customised models and materials are available based on requirements.

Above data are only for reference purpose and subject to change without any prior notice due to constant efforts on product improvement.



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