

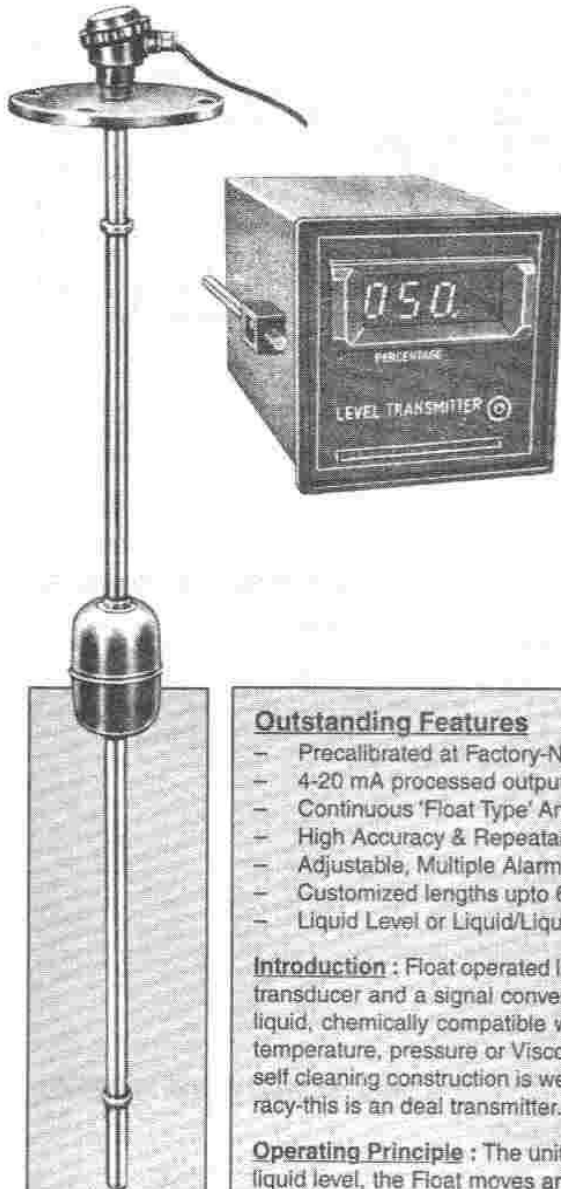
# FLOAT OPERATED LIQUID

# LEVEL

# INDICATOR

# TRANSMITTER

# & CONTROLLER



## **Outstanding Features**

- Precalibrated at Factory-No Field Calibration required
- 4-20 mA processed output signal, 2 or 4 wire units
- Continuous 'Float Type' Analog Sensor, in materials, resistive to most liquids
- High Accuracy & Repeatability
- Adjustable, Multiple Alarm Relays
- Customized lengths upto 6 meters
- Liquid Level or Liquid/Liquid Interface Detection

**Introduction :** Float operated liquid level transmitter, indicator and controller, comprises of a level transducer and a signal converter and is used for continuous level indication and control of any liquid, chemically compatible with the transducer material, unaffected by electrical conductivity, temperature, pressure or Viscosity. The Floats are designed for variety of liquids and its unique self cleaning construction is well suited for even sticky or dirty environments, reliability and accuracy-this is an ideal transmitter.

**Operating Principle :** The unit operates on the principle of buoyancy. During the rise and fall of liquid level, the Float moves and the magnetic field change and actuates the chain which develops a proportional voltage. The sensed voltage is fed to a transmitter for converting it to a signal of 0-5 V Dc or 4-20 mA. The transmitter can also be incorporated with a digital display or stepless adjustable multiple alarm relays (featuring high level alarm, low level alarm, or both & low level pump (or solenoid valve) on & high level off and vice - versa.

**Construction :** The transducer consist of a float and guide tube assembly in non magnetic material to achieve undisturbed flux (fig.1). The float can be in nylon, PP or SS. No gasket or seals are used and there is only one moving part, the float assuring long trouble free life. Being entirely glandless, there is no possibility of fluid leakage into the transducer.

**Installation and Wiring :** The transducer is mounted internally and externally through a chamber (fig.2) by means of a flange connection. External mounting is adopted to overcome limited space within the tank or where mechanical devices operate or where isolation tank is required for regular servicing. The transducer is precalibrated in the factory and comes to you ready for installations. For operation of level transducer, it has to work in conjunction, with a signal converter, which have line or loop powered electronics. Line powered transmitter (fig.3) can be incorporated with a digital display and/or adjustable multiple alarm relays. Loop powered transmitter (fig.4) is employed for remote signalling to a process indicator/controller.

**Application :** Tanks for Oil, Fuel, Milk, Chemicals, Pure/Industrial Water, Ship/LPG Tanks, Pressurized Vessels, Waste Water and Sewage Treatment Plants

**Specifications :**

**Level Transducer**

Measuring range : 6 meters max.	Installation :	Top with 80-100 NB flange in SS 304/316/pp/ptfe lined
Accuracy at	Float :	75/100mm $\phi$ in SS 304/316/pp/ptfe coated
Range = 1000mm : $\pm$ 1% FS	Guide Tube :	SS 304/316/pp/ptfe coated
2000mm : $\pm$ 0.5%FS	Max. Temp. :	SS/ptfe : 100°c / PP : 80°c
4000mm : $\pm$ 0.25%FS	Max Pressure :	SS/ptfe coated : 15 Kg/Cm <sup>2</sup> g / PP : 1Kg/Cm <sup>2</sup> g
	Enclosure Protection:	Weather proof to IP 65

**Signal Converter**

	<b>4 wire system</b>	<b>2 wire system</b>
Electronics	Line powered, Nonintegral with Transducer	Loop powered, integral with transducer
Input	Variable resistance from transducer	Variable resistance from transducer
O/P	4-20mA (Optional 0-20mA or 0-5V DC)	4-20mA
Max. load	400 Ohms	400 Ohms
Supply	24V DC/220V AC	24V DC
Digital Display (Optional)	3½ digits (% of Engg Units)	
Control (Optional)	Multiple stepless adjustable, O/P relays rated for 5A, 230 V AC	
Version	Wall/Panel	
Enclosure	Protection IP 30/IP 65	

Fig. 2

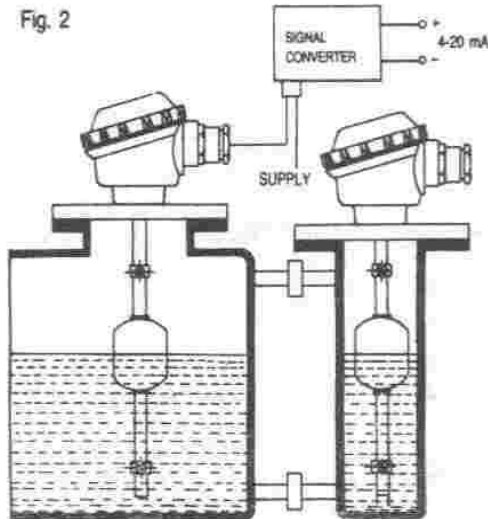


Fig. 3

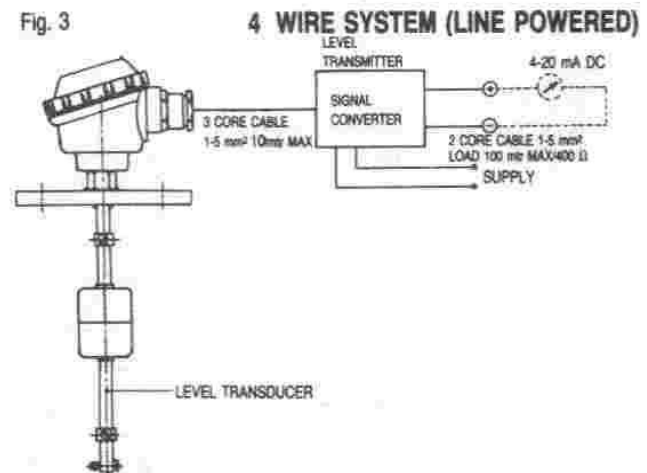
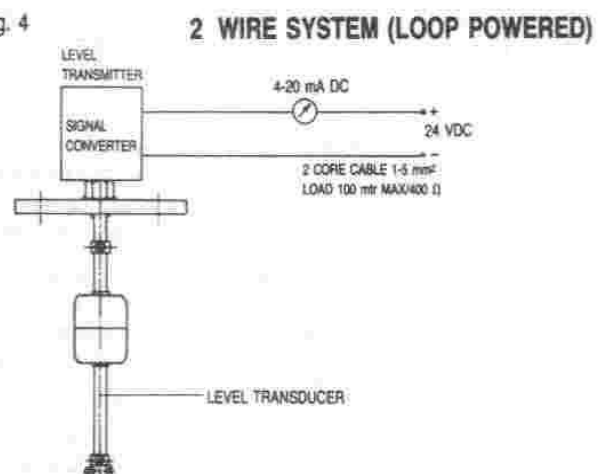


Fig. 4



*Continuous development of our product may necessitate change in these details without notice*

**MALHOTRA BROS & CO.**

EA-198, Tagore Garden, New Delhi - 110 027

Phone : Office : 545 3295, Telfax : 541 7828, Works : 546 1405