

CT801-TA

Electro-pneumatic Tank Level Transmitter - Deck Installation with Honeywell EMx40 Radar

The CT801-TA electro-pneumatic tank level transmitter performs level measurements of tanks on ships, barges and yachts based on the bubbler-type principle. Compressed air is sent via a simple pipe to the bottom of the tank; the pressure equivalent to the column of liquid is measured by a very sensitive differential pressure sensor and transmitted as output signal. A simple pipe being the only wetted part rules out any chances of instrument corrosion. Measurement accuracy is totally immune to bad conditions like sloshing, angled surface, foam, solid deposits, unlike many other gauging technologies. Ease of installation and simple on-board maintenance with pre-stocked spare parts has made CT801 series the instrument of choice since 1966, whenever electro-pneumatic tank level measurement is required. The pneumatic level indicator CT080 can be connected to CT801 series without additional power supply.

Honeywell offers a wide variety of choices for electro-pneumatic level measurement with a portfolio spanning independent stand alone level transmitters, and bubbling cabinets for measurement and signal accumulation from a common cabinet. The CT801-TA is designed for tank top mounting on open deck using a bracket or flanged connection and for connection with the EMx40 series marine radar level gauges. These transmitters are designed to avoid common malfunctions such as lack of air pressure supply or overpressure. An automatic non-return valve is activated as soon as the supply pressure falls below 1 bar in order to prevent the liquid from going into the bubbling line and reaching the transmitter. For pressurized tanks, the level is calculated by deducting the inert gas pressure above the liquid from the measured hydrostatic pressure.



TECHNICAL SPECIFICATIONS

Operating Temperature	- 35°C to + 70°C
Air Supply Quality	4 to 10 Bar Quality 3 Particle size 5 microns Pressure Dew point: -20°C Oil content: 1mg/m ³
Range	0 mBar to 4000 mBar
Power Supply	12 to 28V DC
Accuracy	+/-0.3% FS @20°C
Output Signal	0.5-2.5V DC
Protection Class	IP66/67

DOCUMENTATION

Technical manual	MT5006
Installation manual	MI5006
Maintenance manual	MM5006

PNEUMATIC FEATURES & CONNECTIONS

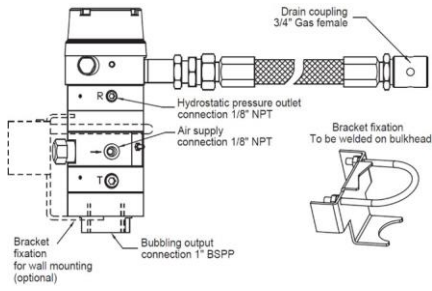
Safety Features	<ul style="list-style-type: none">• Automatic operation of:<ul style="list-style-type: none">- Overpressure valve- Air supply safety valve- Bubbling line non-return valve- Bubbling line cleaning• Venting nipple for open deck mounting
Connections	<ul style="list-style-type: none">• Pressurized tanks• Pressure level indicator
Bubbling flow	<ul style="list-style-type: none">• 10l/h (automatic regulator)
Bubbling line connections	1" BSPP 1/2" NPT (With Flange) 1/4" NPT

APPROVALS

Intrinsic Safety Approval	IECEX, ATEX. II 1 G D Ex ia IIC T6 Ga Ex ia IIIC T70°C Da
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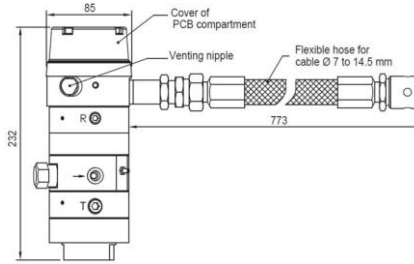
MECHANICAL CONNECTIONS

- 1" BSPP



MECHANICAL DIMENSIONS

- 1" BSPP



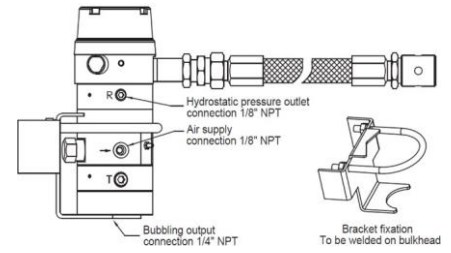
Weight : 7.2 Kg

MATERIALS

Head & Body: Brass
Bracket (Optional): Carbon Steel CS
Flexible Hose: Stainless Steel & Brass
Fitting

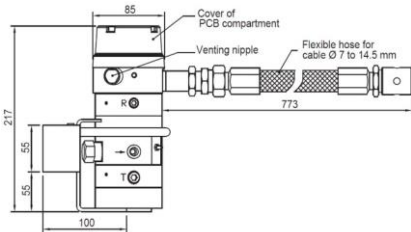
MECHANICAL CONNECTIONS

- 1/4" NPT



MECHANICAL DIMENSIONS

- 1/4" NPT



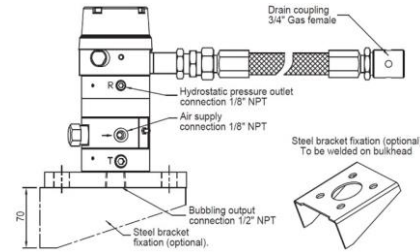
Weight : 8.2 Kg

MATERIALS

Head & Body: Brass
Bracket (Optional): Carbon Steel CS
Flexible Hose: Stainless Steel & Brass
Fitting

MECHANICAL CONNECTION

- 1/2" NPT



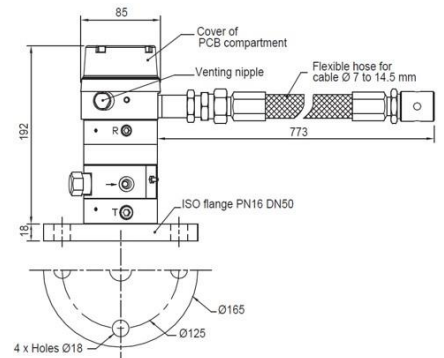
FLANGE OPTIONS

SELECTION PROCESS CONNECTION TYPE

*_*_B01_****	PN16/DN50 Brass, 1/2 IN NPT
*_*_B02_****	PN10/DN80 Brass, 1/2 IN NPT
*_*_B03_****	PN20/DN50 Brass, 1/2 IN NPT
*_*_B04_****	JIS 5K/DN65 Brass, 1/2 IN NPT

MECHANICAL DIMENSION

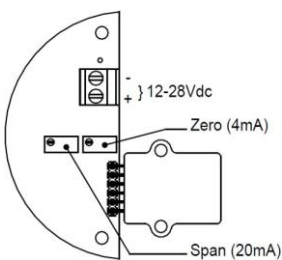
- 1/2" NPT



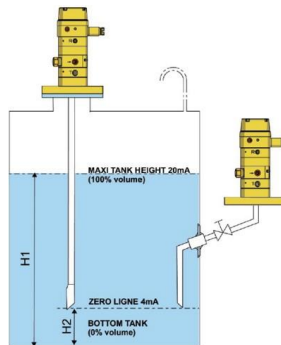
MATERIALS

Head & Body: Brass
Flange: Brass
Flexible Hose: Stainless Steel & Brass
Fitting
Bracket (Optional): Carbon Steel CS
with rust proof coating

ELECTRICAL CONNECTION



EXAMPLE OF INSTALLATION



AVAILABLE PRESSURE RANGES

SELECTION	PRESSURE RANGE - ELECTRONIC PCB
1	0-40/70mbar
2	0-70/350mbar
3	0-350/1050mbar
4	0-1050/2100mbar
5	0-2100/4100mbar

For More Information

www.process.honeywell.com

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements.

All specifications are subject to change without notice.

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