Product Data Sheet
September 2014
Ed 04

LevelDatic™ 80S
Multipoint Transmitter

EMERSON™
Process Management

Product Description

LevelDatic™ 80S collects and measures level or draught data from hydrostatic pressure using electro-pneumatic technology.

Two main methods are used to measure hydrostatic pressure:

- Bubbling air fed to tank — used where bubbling air can be fed into the tanks, such as ballast, diesel oil, heavy fuel oil tanks and draught measurement.
- Pneumatic 1:1 pressure converter — used where air fed into the tanks is prohibited, such as in drinking water tanks and tanks with liquid flash point less than 60º C.

10 electro-pneumatic channels can be connected to each cabinet and additional cabinets can be added to fit the vessel's requirement. A unique feature is the constant flow speed controller allowing adjusting and monitoring of air flow and fast access for testing and purging. Another useful feature is that each channel has a built in non-return valve in the pneumatic block located in the cabinet.

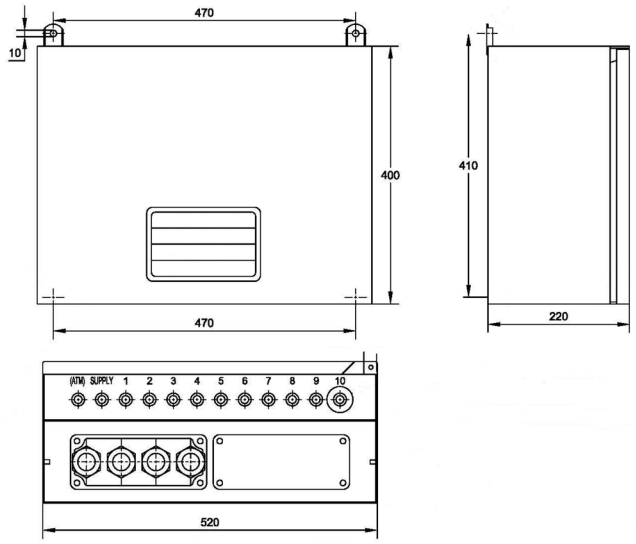
Benefits

- Accurate and robust measurement in all types of tanks
- No electronics in hazardous area, easy exchange of spare parts
- Air flow volume controller with visual monitoring and built in quick test connector

The electro-pneumatic LevelDatic™ 80S system provides reliable and accurate continuous on-line information on actual tank levels, possible water ingress and ship's draft. Every tank, hold/void space and draft measurement has its own dedicated sensor.

All electronics are located in cabinets placed within a safe area. There are no sensors, electrical cables or moving parts in the tanks that can be damaged, and that require tank entry for replacement.

Dimensions



Other Applications

LevelDatic™ WIM is designed for monitoring and detection of water ingress in cargo holds, empty ballast tanks and voids. The system includes alarm panel with all the required alarms and also shows actual level of water.

Decision Support Flooding Control (DFC) is a solution developed in cooperation with Onboard Napa Oy. This solution uses online information integrated with an intelligent 3D calculation tool for the best reliable decision support in case of flooding .

For more information please contact Emerson Process Management.

Technical Specification		
Cabinet		
	Measuring point capacity	1 to 10 electro-pneumatic measuring points
	For each measuring point	– capacitive gauge pressure sensor – overpressure capacity of 8 bar – constant air flow speed controller and indicator, continuous air flow in measuring lines – purge and test possibility – built-in non-return valve and shut off valve
	For each cabinet	– shut off valve for air supply and every measuring line – pressure reducing valve with manometer and low pressure alarm switch – connection board with test and sensor protection components and alarm connection
	Standard interface	2-wire 4 to 20 mA signal from each measuring point
	System capacity	Unlimited
	Measuring range	0 - 35 m
	Sensor range	0.2 / 0.5 / 1 / 2 / 3 / 4 bar
	Sensor Conformity	Maximum ±0.2 % F.S. (sum of linearity error, hysteresis and repeatability)
	Power supply and consumption	Loop powered (option: 230/115 VAC, 50-60 Hz), maximum 16W
	Air supply	5 to 8 bar dry and clean instrument air
	Air consumption / measuring point	– empty tank 0.5 lit / min free air; 0.07 lit / min (7 bar) – 10 m 0.85 lit / min free air; 0.12 lit / min (7 bar) – 20 m 1.2 lit / min free air; 0.17 lit / min (7 bar) – 30 m 1.4 lit / min free air; 0.20 lit / min (7 bar)
	Installation area	Safe area
	Type approvals	DNV, BV, LR, ABS and CCS
	Operating temperature	+5 to +70º C
	Storage temperature	-25 to +70º C
	Humidity	No condensation
	Weight	~25 kg
Housing		
	Housing material	Epoxy powder painted steel
	Standard colour	RAL 7032
	Sealing	IP56

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