IFC Inflow

T5020

TANK GAUGE. +/- 0.25%

A unique programmable Tank Gauge Unit.   Single or Multi Tank.

How does it work.

This UK manufactured system receives a 4-20 mA signal input from the tank sensor, and allows the programmer to scale the output in any way. The display can be mounted up to 100 meters from the tank

Outputs:

Dependant upon your requirement, the T5020 can provide:

> Linear 4-20 mA output from non linear input,
> (Up to 100 correction points)
> This can be Loop powered or Passive

> RS485 data communication 9600 baud rate MODBUS. rtu

> 4 x Software programmable Triggers / Alarms

> 1 x 'B' Alarm condition Output for BMS or similar.
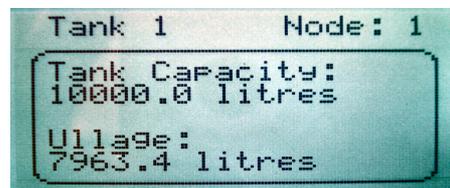> This can be for Water bottom, or Bund, or Fail Safe level Alarm, or any other volt free contact.

> Litres indication and & Volume on a backlit low power LCD display. The display light sleeps after 1 hour.
> Flashing beacons are available during alarm conditions.
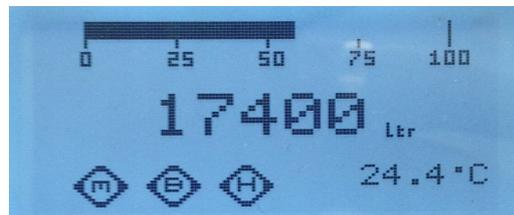
Display Features:

User configurable display, allows Litres to be shown as well as a Bar graph gives instant visual status.
A Scroll option shows the Maximum Tank Capacity, as well as the available space (Ullage). This is corrected based on the Safe Working capacity percentage settings.
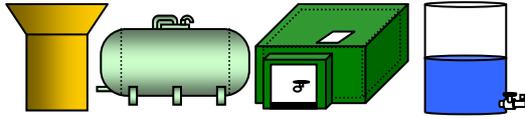
T4020-B??   Tank sensor assembly
T4020-NJ, 1" BSPT Tank Fitting
T4020-OJ 30 mm Fitting

TECHNICAL DATA.

Programming
Windows based programming environment including programme change and interrogation facility via an RS485 connection. Programming software is available free of charge from our web site.

Power requirements/ Options
15 to 24 VDC @ 80 mA ,   Optional 100 / 240 vac @50/60Hz.

Alarm Functions
4 x Programmable alarm/ trigger set-points, (see outputs).
e.g. High Level Local alarm with acknowledge circuit.
Optional Integrated Bund Alarm with Acknowledge circuit.
Optional Integrated Water Bottom, or Low/High Level Alarm

Service / Calibration
A 24 month health check is recommended.

Enclosure   IP65 Fully weatherproof for outdoor use.

Cable connections
Weatherproof cable glands are provided for power supply and signal inputs. Screw down & plug in Terminal strips are provided within the enclosure

Inputs
One 4 - 20 mA Tank Sensor, powered by the T5020 or self powered.

Outputs
One 4 - 20 mA corrected contents output for BMS or similar
One RS 485 data communication Modbus RTU connection.
Four (4) Control outputs providing 24vdc 1.5A for powering
24vdc relay coils (depending upon supply voltage).
The High Level Local Alarm option utilises one of the outputs.
One 'B' condition Output for BMS or Similar (Bund Alarm State)

Accuracy. of system +/- 0.25% Tank Capacity or better.
Resolution adjustable to 0.01% of tank capacity.
Hysteresis between reading steps adjustable 10 to 90 %
Safe Waorking Capacity % adjustable, eg 98% = SWC

Operating Temperature	Humidity	Warranty
-5 to +60 DegC	5 to 95%	24 Month RTM

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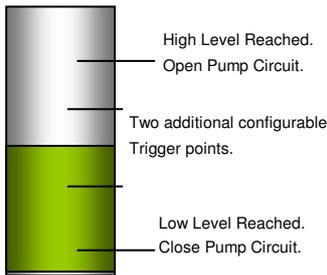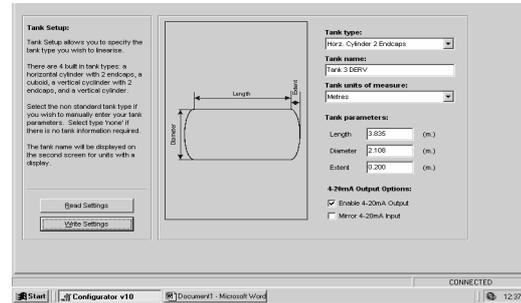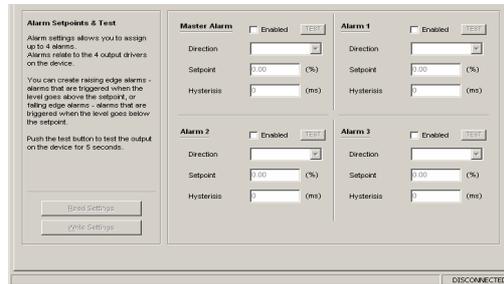
TANK SHAPE CONFIGURATION

Input tank sizes on simple visual page,

Standard tank options include: Rectangular, Horizontal with elliptical ends, Vertical with elliptical ends Vertical cylindrical flat base
Option of up to 100 manual strapping points

ALARM CONTROL SETPOINTS

High Level Reached.
Open Pump Circuit.

Two additional configurable Trigger points.

Low Level Reached.
Close Pump Circuit.

T5020 Trigger points can be configured as rising or falling control.
They can be set based on the percentage of the tank contents, or based on level.

Triggers are set with free inclusive software. Triggers provide a voltage output proportional to the supply voltage. 24vdc supply = 24vdc out. FET components

4 x Relays with volt free outputs are available. T4020-R4

TANK LEVEL MEASUREMENT

Utilising precision pressure sensors for 'head of pressure measurement'. This alleviates the need for temperature compensation, associated with 'physical level' measuring devices. (Product temperature can be displayed as an option). Level changes due to temperature are almost directly proportional to change in specific gravity. As a result the 'head of pressure' remains virtually constant over a wide temperature range. Sensor available for all tank depths, 1 meter to 20 meters.

We can provide an exclusive tank access fitting where no existing free connection is available.
External sensors for bottom mounting are also available. 1/2" BSPT male connection is provided in this case. (You supply valving).
Ultrasonic, Capacitance and Radar sensors are also available
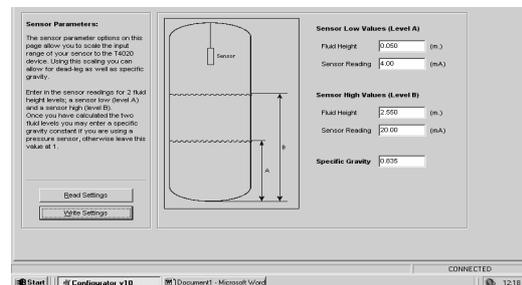
BUND ALARM CONTACT MODULE

The T4020 unit has the unique facility to offer a Modular BUND ALARM , activated by a float switch as standard.   This Alarm is a 110 dB siren at 1 meter. There is a visual alarm shown on the front of the T4020 Display, showing 'B' Alarm condition 'Off' 'On' 'Acknowledge'.   A Test feature ensures the alarm circuits are working.
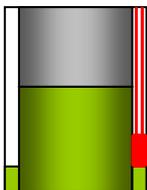
 Modular BUND ALARM has the benefit of 'Power Sharing' with the T5020 Gauge itself, reducing the need for   additional cabling, or enclosure mounting, reducing space required and installation and maintenance time. The value of this alarm can be read remotely via RS485, or an additional relay can supply BMS applications

TEMPERATURE DISPLAY OPTION.

The T5020 has the option to display the temperature of the tank contents when utilising the sensors with temperature outputs. This is a 10K Thermistor circuit, calibrated 0 to 70 degrees C as standard. This value can also be read as an RS485 value in standard code and Modbus. rrtu.

TYPICAL APPLICATIONS

GASOIL , DIESEL, KEROSENE, PETROL. LUBE OIL, COOKING OIL, GEAR OIL, BIODIESEL,
WATER, ANTI-FREEZE, ADBLUE , WINDSCREEN WASH, MOLASSES, TREACLE, SILICATE, LIQUID FOODS .... ACIDS, INKS,

WHERE………….. FORECOURTS, DISTRIBUTION, LOCAL STORAGE, FARMS, SCHOOLS, BOILER ROOMS, WATER TREATMENT, BACK-UP GENERATORS, MOBILE BOWSERS, DAY TANKS, AND BUILDING MANAGEMENT SYSTEMS, (BMS).