

Countum Group

SATAM

Metering Solutions



Flow computer for depots

EQUALIS S

Equalis S is a field batch controller designed for oil depots and terminals. It meets all the requirements for tanker trucks, railcar and ships loading and unloading operations. Custody transfer certified, Equalis S is compatible with the entire range of volumetric and mass meters used in the oil industry.

Equalis S is an all-in-one electronic register. It can interface directly with most terminal automation and data management systems.

Flow computers

Measuring systems

Flow meters

Accessories

Field of application

- Tanker truck and rail car loading and offloading
- Bio-fuels online and batch blending
- Additive injection control
- Delivery of heating oil to individuals
- Delivery of fuels to service stations
- Delivery of fuels to worksites, ships, boiler rooms

Key points

Compact design for easy installation

Because of its single box concept, Equalis S field batch controller has a drastically reduced installation cost. Its compact design allows easy installation on tank trucks and compact assemblies.

User-friendly operations

Equalis S Man Machine Interface offers a direct and local access to pre-programmed functions such as meter preset, ticket printing, product selection...

Multifunction and powerful associated software package

Equalis S can be linked to the supervisory PC using Equaview software package. This plug and play multifunction tool allows data collection, remote control of loading operations, maintenance and configuration of Equalis S flow computer.

Very open communication skills

Friendly remote control of loading operations

Associated with the Equaview PC based database management software, Equalis S allows a comprehensive overview and access to the key loading parameters such as loaded value, blending rate, pump operation, additive content, stop of the current delivery, driver and user identification, bill of lading printing...

An optimized verification tool

All the diagnosis elements of the Equalis S flow computer and the operating conditions data are continuously stored by the Equaview software during the delivery in Crystal Report format. They can easily be extracted and send to Satam engineers for diagnosis or periodic verification of the flow computer.

A comprehensive visualization of loading areas

Equalis S continuously send to Equaview the loading area data. The gantry box represents graphically the position and status of each loading arm. The arm box gives all requested information about the transaction such as arm name, volume, temperature, flowrate, ticket number...

Technical Data - Flow computer

Model		EQUALIS S
Application		Electronic register, batch controller to be field mounted
Functions		Control of dosing valves and blending valves Additive injection control (can control up to 12 additives per metering line) Management of safety devices (grounding, overfilling...) Calculation of base volume, mass and price Secured back-up of metrological data transactions
		Control of functions associated with the fuel distribution on truck (motor, pump clutch, valve, drain valve, bottom valve, overfill probe)
Metrology	Meter Inputs	PD Meter, mass flow meter, ultrasonic meter, turbine meter
	Temperature Inputs	Pt 100 or 4-20 mA transmitter
	Density input	RS485 Modbus or 4-20 mA transmitter
	Pressure input	4-20 mA transmitter
	Base volume/mass calculation	Fuels: ASTM 54B table - Ethanol, methyl ester, bio-diesel : ASTM 54C table Lubrication oils: ASTM 54D table - LPG: ASTM API as per NF M80 17
Equipment	User Interface	Display : Graphic screen, 240 x 128 pixels, backlight Volume resolution : 999999 points
		Numeric keyboard, pre-programmed pushbuttons, cycle start/stop pushbutton
	Enclosure	Aluminum base with epoxy coating
	Data storage	60 000 transactions
	Associated software package	Equaview for : Data collection from Equalis batch controller, database management Remote control and display of loading operations Maintenance and configuration tool Printing of ticket, delivery slip, bill of lading
Inputs/Outputs	Meter inputs	1 or 2 inputs dual-pulse with flow direction Intrinsic safety or NAMUR*
	Pt100 inputs	1 or 2* inputs (4-wire Pt100)
	Current inputs	1 or 2* for pressure, temperature and density measurements
	Digital inputs	15 inputs (intrinsic safety) and 2* input (NAMUR) for grounding system, arm position, overfilling system, additive volume, vapour recovery, emergency stop
	Digital outputs	10 (+10*) relays (250V, 10A) for valve commands, pump, alarm, additive injection control
	Pulse outputs	1 volume output for seal parcel delivery & additive injection control
	Current input	1 for flow rate, density, temperature, control valve (in preparation)
	Databus	1 port RS485 or Ethernet TCP/IP : communication with supervisory system and measurements inputs 1 port RS485 or RS232 : printer Communication protocole : Modbus RTU 1 port USB : Data extraction
Operating conditions	Ambient temperature	Standard : -20 °C to +55 °C - Option : -40 °C to +55 °C
	Certification for potentially explosive atmospheres	ATEX et IEC Ex Zone 1 – II 2 (1) 1 G Ex d [ia Ga] ia IIB T4 Gb Ga
	Protection class	IP66
	Power supply	100 to 240 VAC 50 à 60 Hz - 19 to 36 VDC (only for truck version)
Custody transfer approval		Evaluation certificate EC/MID évaluation n° LNE-25874 Type compliance certificate OIML R117-1 n° LNE-24351
Dimensions		Height x width x depth (mm) : 278 x 350 x 192 (without cable glands) Weight : 16 kg

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