Optolevel® GateWay

Optolevel® GateWay is a *liquid level monitoring system* for fuel transportation in tank trucks and rail cars to prevent overfills and accidents in delivery and to protect the environment from pollution as well as to eliminate all human errors.

GateWay has been designed and manufactured to be a versatile system. It can be easily configured to suit any fuel transport company's requirement in loading, unloading and load transfer. GateWay can be installed into all tank trucks and rail cars with pneumatic bottom valves.

Technical Specification

Enclosure

Dimensions (H x W x D)	190 x 190 x 130 mm
Weight	1,90 Kg
Material	Polycarbonate

Electrical Specifications

Power Supply	U_n = 24 V DC U_{min} = 17 V DC U_{max} = 32 V DC I_{max} = 1,5 A

Ambient Conditions

Operating Temperature	$-40°C < T_a < 50°C$
Relative Humidity	20 - 80 % (non-condensing)

Certificate

ATEX	VTT 08 ATEX 035X II 2(1)G Ex emb [ia] IIB T3 GB

Connections

CAN bus	1
Sensor or Switch Sockets	24
Thermal Sockets	3 for loading
Delivery Overfill Amplifiers	3 for loading
Solenoid Valve Controls	11
Serial connection for configuration	1 (RS232)
Optical socket	1 for loading
Switches	5 internal, fixed functionality
24 Volt iCurrent Sockets (Intrinsically safe)	4 (each 156 mA max)

GateWay ordering system is online through Optolevel web page: www.optolevel.fi

The set of features can be selected according to the requirements of the individual vehicle.

Product Code	Description
GW 10.7	Level Monitoring System

Standard Features

1. Total of 24 individually configurable connections for optical sensor (**) (***) or for switch input (**)
2. 5-wire optical socket connection service for loading (EN13922)
3. Overfill Prevention (OFP) loading & unloading
4. Connections for 3 thermic OFP services for loading
5. Configurable with computer through easy to use, free computer software (***)
6. 11 Solenoid Valve Control outputs, which are all configurable to different uses
7. Loading options for additional configurable features (input for e.g. external "Start loading" switch)

 * as mandated by EU Parliament and Council Directive 94/63/EC

 ** the sensors and switches share the socket connections so the maximum use of one will eliminate the other

 *** allows incorporation of different types of loading standards (E.g. Swedish double safety)

 OFP = Overfill Prevention
 ROFP = Retain Overfill Prevention
 ECC = Empty Compartment Control

Optional Features

1. Retain Overfill Prevention (ROFP)
2. Vehicle Grounding guarding*
3. Controlled manual override of faulty sensor under certain conditions during loading
4. Empty Compartment Control (ECC)
5. Capability to program freely the sensor locations for OFP and ROFP
6. 3 amplifiers for unloading overfill thermistor sensors, with bypass socket recognition, dedicated. Solenoid valve Controls and Grounding Wire verification (EN13616)
7. CAN-interface for all the events in the system (e.g. event logs, system surveillance)
8. External Solenoid Valve Terminal Control through CAN-bus
9. External Solenoid Valve Terminal Control through CAN-bus for 16 controls
10. Configurable delay of solenoid valves for preventing pipe line pressure shock in abnormal situations
11. Free configuration of the internal and external (CAN-bus) control of the solenoid valves
12. LED -indicators freely configurable
13. Functions (AND, NAND, OR, NOR) for unrestricted creation of controls and indication signals
14. Advanced logical functions (8 x customizable group logic)
15. 3 interlock inputs, for additional security for loading (e.g. making sure that the brakes are on)
16. Delay functions (Delayed event sequences)

ATEX

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Specifications are subject to change without notice.