



USERS MANUAL / GEBRUIKERSHANDLEIDING
BETRIEBSANLEITUNG / MANUEL D'UTILISATION
MANUAL DE UTILIZACION / INSTRUZIONI PER L'USO

MasterBus Tanklevel Interface

Interface between tank level sensor and MasterBus



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1 GENERAL INFORMATION

1.1 Use of this manual

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This manual serves as a guideline for the safe and effective operation of the Tanklevel Interface.

Keep this manual at a secure place!

1.2 Guarantee specifications

Mastervolt guarantees that this product was built according to the legally applicable standards and stipulations. If you fail to act in accordance with the regulations, instructions and stipulations in this user's manual, damage can occur and/or the product will not fulfil the specifications. This may mean that the guarantee will become null and void.

IMPORTANT: Additional warranty agreements, like "Mastervolt system warranty" may contain restrictions which forbid resetting of historical data. The standard guarantee period is two years after date of purchase.

1.3 Liability

Mastervolt can accept no liability for:

- consequential damage due to use of the Tanklevel Interface;
- possible errors in the manuals and their results;
- use that is inconsistent with the purpose of the product.



CAUTION!

Never remove the identification label.

2 OPERATION

2.1 Tank level monitoring

The Tanklevel Interface is able to monitor any volume level in your system, using any powered or non powered electric sensor that complies with the specifications. A typical application of this interface is monitoring the water or fuel tank level in a ship.

For this purpose, a float sensor must be mounted.

2.2 MasterBus functions

The table below shows the Interface MasterBus functions. These functions can be visualised by means of a MasterView display or the free downloadable MasterAdjust software. See www.mastervolt.com

Monitoring	Description	Default	Range
Level	Tank level expressed in %	-	0-100%
Volume	Tank level expressed in liters or gallons	-	
Almost full	Option to allow an alarm for an almost full tank	Not checked	Not checked, checked
Almost empty	Option to allow an alarm for an almost empty tank	Not checked	Not checked, checked
Voltage	Sensor voltage in V	0	0-63 V
Current	Sensor current in mA	0	0-20 mA
Resistance	Sensor resistance in Ohm	0	0-300 Ohm
Alarms			
Almost full	Alarm to indicate the tank is almost full	Not checked	Not checked, checked
Almost empty	Alarm to indicate the tank is almost empty.	Not checked	Not checked, checked
Configuration			
Language	Set the Tanklevel Interface menu language	English	See specifications
Name	Any name you wish with 12 characters max	Tanklevel	12 characters max
Unit	Three different volume units are available. The interface automatically converts these units.	Liter	Liter, US gallon, UK gallon
Events			
Event 1 source	Configure Up to 63 events using this interface's MasterBus alarms as source. For more information on events, see www.mastervolt.com	Disabled	Disabled, Almost full, Almost empty

Configuration for installers only

Sensor type	The sensor signal is a voltage, current or resistance.	Resistive	Resistive, current, voltage
Sensor power	Option for powered sensors. Smart: the sensor is switched On only if necessary. * See below	Off	Off, On, Smart
Sensor damping	Sensor fluctuations can be damped to different levels. The heavier the damping, the larger the fluctuations that are damped.	Light	Light, medium , heavy
Tank type	This option allows for indicating the fluid type contained in the tank or its filling type. Example: a fresh water tank empties on use and a grey water tank fills on use.	Fuel	Fuel, Fresh water, Grey water, Black water, Empties on use, Fills on use
Tank volume	Enter the tank volume as specified. The volume is expressed in the unit selected.	0 Liter	0-65535 Liter, 0-17314 US Gallon, 0-14416 UK Gallon
Almost full alarm	Volume percentage at which the alarm Almost Full must take place.	100 %	0-100%
Almst.empty alarm	Volume percentage at which the alarm Almost Empty must take place.	0 %	0-100%
Calibration	This interface is calibrated by determining at which level the tank is full and empty. The interface calculates the tank level by interpolation.	-	Tank full, Tank empty

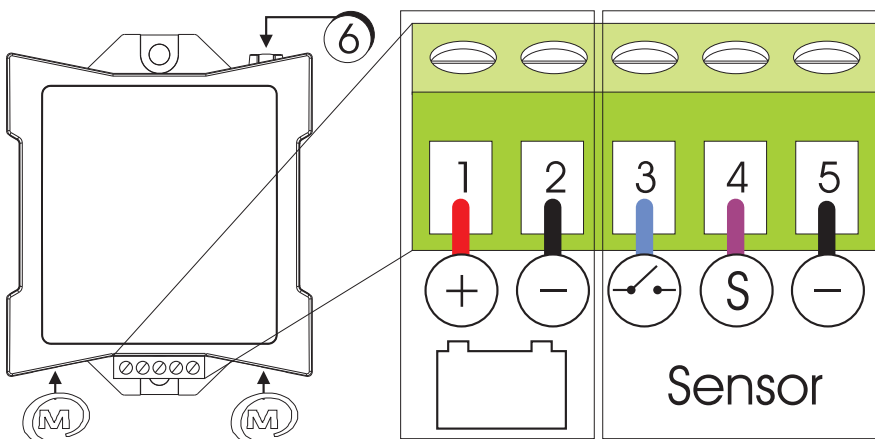
* For Smart powering, your sensor must be able to produce a reliable signal within 100 milliseconds, regardless the tank conditions. If you are not sure, choose On first, calibrate and read the

corresponding AD values. Choose Smart next and calibrate again. If the AD values compare well, your sensor is convenient for Smart powering.

3 INSTALLATION

Insert the MasterBus cables, then connect the sensor cables to the screw terminal 3 (if necessary),

4 and 5, see below. Finally connect the battery cables (1, 2) if necessary.

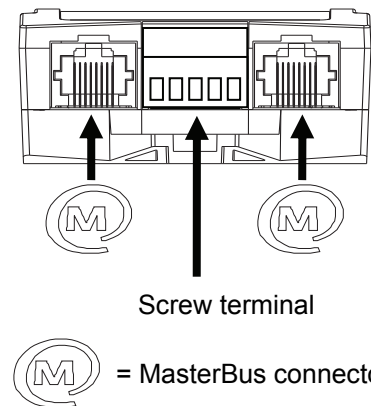
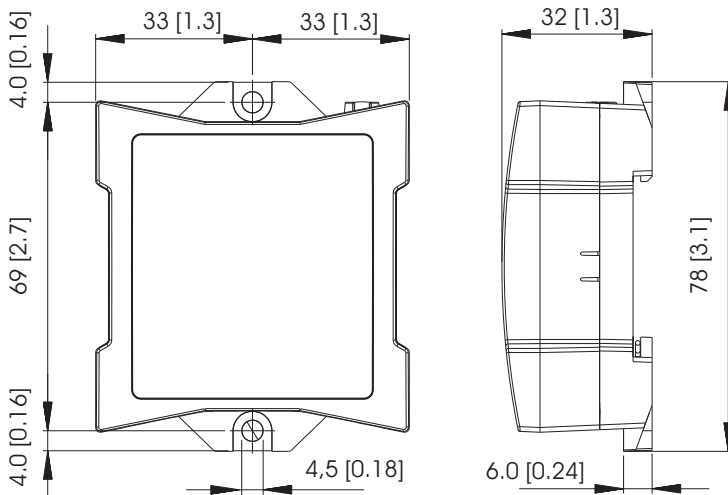


1. Battery positive
 2. Battery negative
 3. Switched power positive
 4. Sensor signal
 5. Sensor negative
 6. Communication led
- MasterBus connector

Connection scheme of the Tanklevel Interface

4 TECHNICAL INFORMATION

Model:	Tanklevel Interface
Article number:	77030300
Delivery also includes:	Screw terminal, MasterBus cable, MasterBus Terminating device, User's manual
Function of instrument:	Processing tank level data for MasterBus, using a (non) powered electric sensor; providing switched power to powered sensors
Battery voltage	0-63 V (< 200 mA), equals to the sensor supply voltage
Sensor voltage	0-70 V
Sensor resistance	0-300 Ohms
Sensor current	0 (4)-20 mA
Power consumption	280 mW
Languages available:	English, Nederlands, Deutsch, Français, Castellano, Italiano, Norsk, Svenska, Suomi, Dansk
Din rail mounting:	Yes, Din rail 30 mm [1.2 inch]
Protection degree:	IP 21
Dimensions:	66 x 78 x 32 mm [2.6 x 3.1 x 1.3 inch]; see drawing below
Weight:	Approx. 90 gr [0.20 lb] including screw terminal



Dimensions in mm (inch) and connections

5 EC DECLARATION OF CONFORMITY

This product is in conformity with the provision of the EC EMC directive 89/336/EEC and amendments 92/31/EEC, 93/68/EEC. Standards applied:
Generic emission standard: EN 50081-1:1992,
Generic Immunity standard: EN 50082-1:1997,
Safety directive 2006/95/EC, with the following standard,
Low voltage standard: EN 60950: 2000.



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