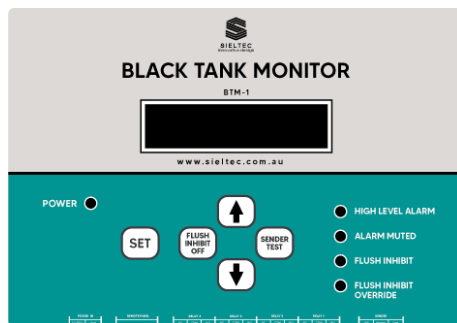




SIELTEC
innovative design



BTM-1 Black Tank Monitor

Technical Advice Note 110523

Multiple Power Sources

Toilet and Nav power switches typically using Garmin GFL 10
and

Multiple Toilet breakers on main switch board

Disclaimer of Liability

Please note that since the installation, operation and maintenance of the Silettec BTM-1 is beyond the control of Sieltec, Sieltec does not have responsibility and expressly disclaims liability for damage, loss or expense whether direct or indirect, consequential or incidental arising out of or in any way connected with the installation, operation use or maintenance.

Please also note that while every precaution and effort has been expended to ensure accuracy of this technical advice note, the functionality and specifications may change without notice.

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Document Description – BTM-1 Technical Advice Note 110523

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Statement of Appreciation

Thank you for purchasing this BTM-1 from Sieltec. We understand that with this purchase comes a responsibility for Sieltec to ensure the product is fit for purpose and provides many years of trouble free service. If you are not satisfied with this product please contact Sieltec support and we will do all we can to rectify any problem relating to this product.

BTM-1 Technical Advice Note

Introduction

Example of specific installation problem

This note provides advice regarding the use of a fluid level sender to NMEA2000 adapter which is powered by a different power source than the BTM-1 main unit. The result of separate powering can cause false readings to the BTM-1. This can occur if the Toilet power is on but Navigation power is off. In this case the sensor will read zero as no power is applied. Depending upon the sensor this could cause the BTM-1 to indicate a full black tank or an empty black tank. If the sensor is a USA standard it will indicate a full tank causing the toilet flush to be disabled if the Navigation equipment is turned off.

Also, if multiple Toilet switches are present, any or all of the toilet switches need to be able to operate the BTM-1. The use of a very simple power combiner board (Sieltec PC-1) allows provision of this function.

This Technical Advice Note outlines the solution to these issues.

Resolution

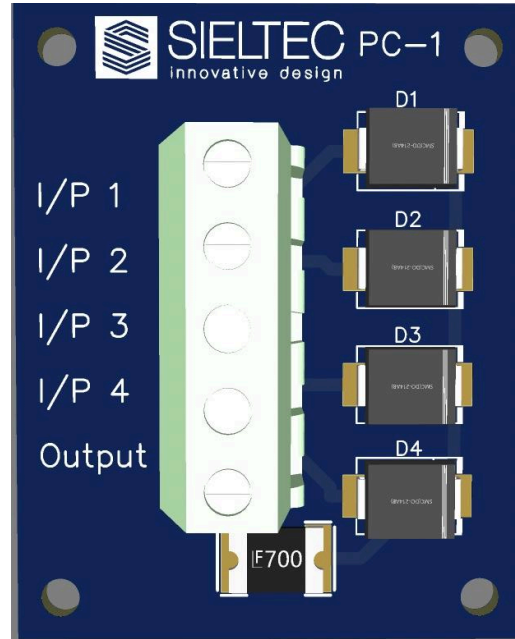
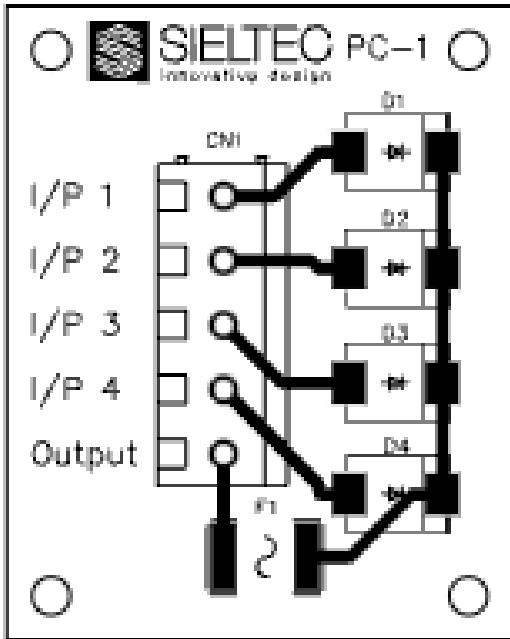
Power the sensor continuously

Power needs to be applied to the sensor continuously by inserting an NMEA 2000 power isolator between the normal NMEA 2000 bus and the Sensor adapter. A power NMEA 2000 injector then needs to be inserted and powered from a 24hr 12 volt supply. In this way the sensor is permanently powered.

Feed multiple toilet switches to BTM-1.

Use a Sieltec PC-1 power combiner to feed the BTM-1. The toilet switch output goes to the input to the Sieltec PC-1. The output of the PC-1 goes to the BTM-1. The cables are terminated on a screw terminal connector.

A maximum of 4 separate switches can be combined to power the BTM-1. The output of the combiner has a resettable fuse with a hold in current of 1.8 amps.



The PC-1 comes with a plastic mounting plate so the board can be easily screwed to any surface without concern for the electrical contacts of the connector.

End of Technical Advice Note