



SM99 SMART CONSOLE

USER MANUAL

V2.0 SEPTEMBER 2016

INTRODUCTION

Welcome to choose Automatic Tank Gauging (ATG) System of Windbell Company. You are strongly recommended to read this manual before installation.

The installation and maintenance of the products must be done by the qualified technicians.

Safety Instruction

- The ATG system is installed in gas station and oil depot, please read safety instructions for explosion protection.
- No power during installation and maintenance.
- The products are prohibited to be installed in explosion proof area over its own Ex-proof grade.
- The console and printer must be installed in safe area, such as office.



Safety Warning

- The tank must have earth busbar, and the earth must be safe and reliable.
- ATG system must share the same ground with tank.

Unpack and Check

Please check all the materials according to the list. If anything missed, please contact the local representative or distributor directly. You can also find the contact information of Windbell in this manual.

Warranty Card

After installation, please send the filled Warranty card to Service Department of Windbell by email sales@windbelltek.com, it is for your benefits and timely service.

Thank you very much!

In the constant effort to improve our product, we reserve the right to make construction or design changes without notice or obligation.

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1. Summary



SM99 Controller is part of the system comprised of Probe + SM99 + PC + PC Remote Software for the management of service stations. Its main function is to supply power to the probe at a safe current and voltage level, and to provide a means for reliable data transfer to the PC. It consists of a power supply, safety barriers, and a communication converter. It communicates with the PC through the RS-232 port up to a distance of 8 meters. It communicates with the probe using the RS-485 port up to a distance of 300 meters. Standard configuration is connects to 6 probes (Tanks), and optional for 9 probes or 12 probes.

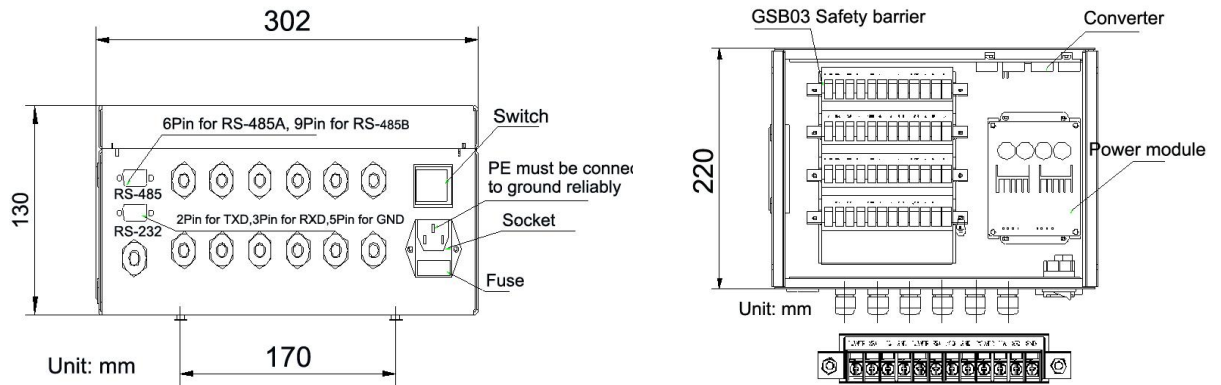
2. Technical Parameters

2.1 Electrical Parameters

ITEM	PARAMETER
Power input	AC 220V ±10%/0.1A/50Hz
Working temperature	−20℃ to 60℃
Safety barrier	WINDBELL GSB03
Explosion proof mark	[Exia]IIA
RS-232 signals & pin assignments	PIN 2 for TXT, PIN 3 for RXD, PIN 5 for GND
RS-485 pin labeling	PIN 6 for RS-485A, PIN 9 for RS-485B

2.2 Dimensions & Terminals

Fig. 1 shows the SM99's physical dimensions and the definitions of the terminals.



3. Installation

SM99 can be fixed on a wall or be placed flat on a desk in a safe area i.e. non-hazardous zone. Fixed draw please see Fig.2



Note

1. There is a PE contact in the SM99 for protecting the whole gauging system. This must be securely connected to the grounding system of the service station by a multi-core copper cable with a minimum size of 6 mm^2 , and a resistance of less than 4Ω .
2. Do not turn on power of the system unless and until all cablings are correctly connected.
3. Do not open up the SM99 box while the power is on.

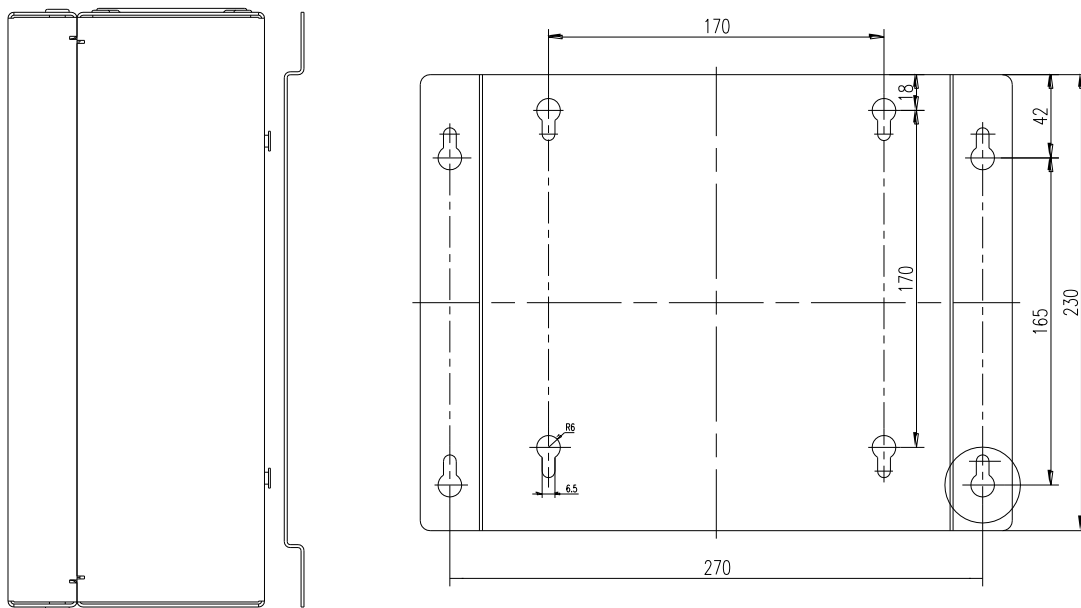


Fig. 2

4. ATG System Electrical Connection Diagram

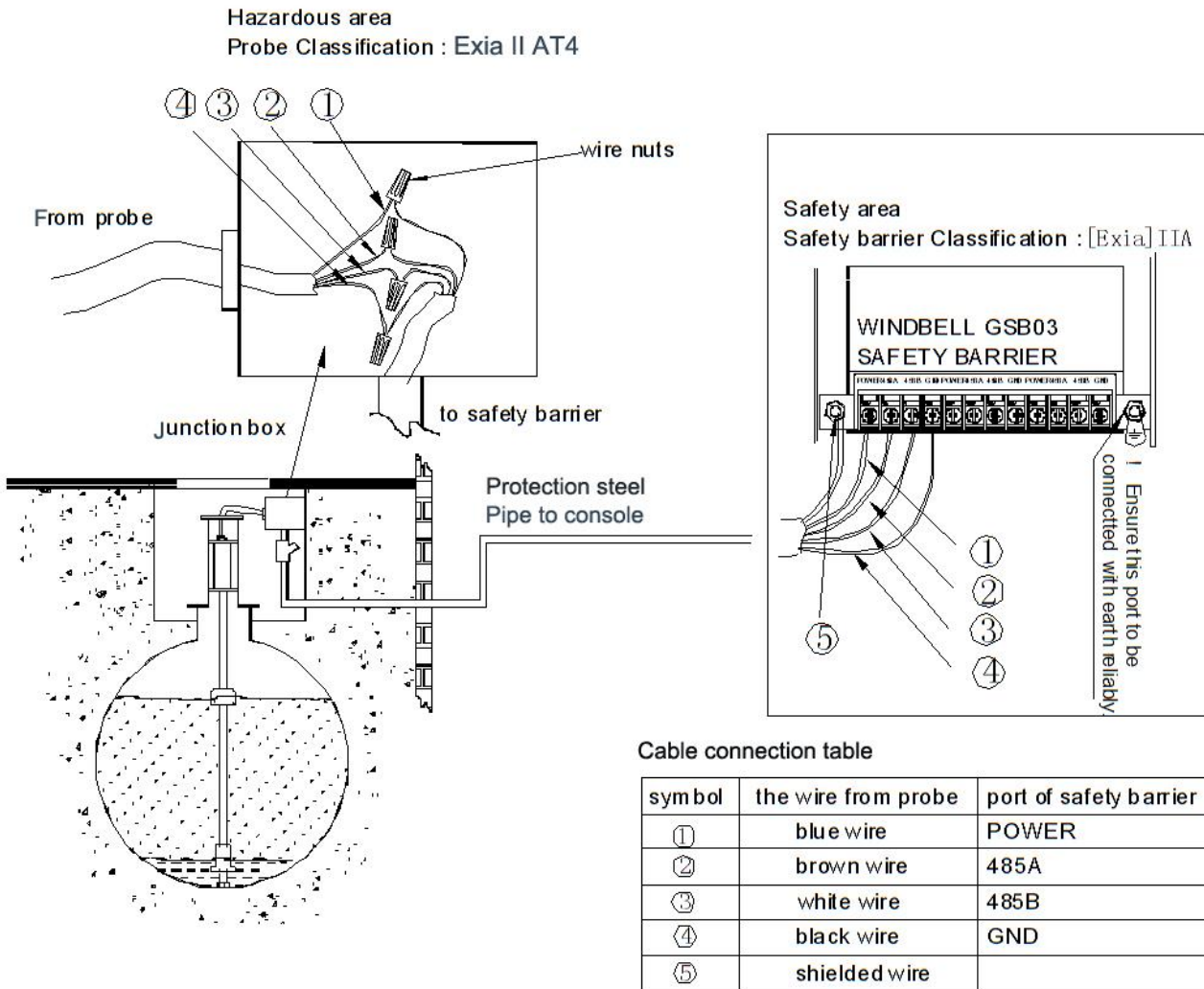
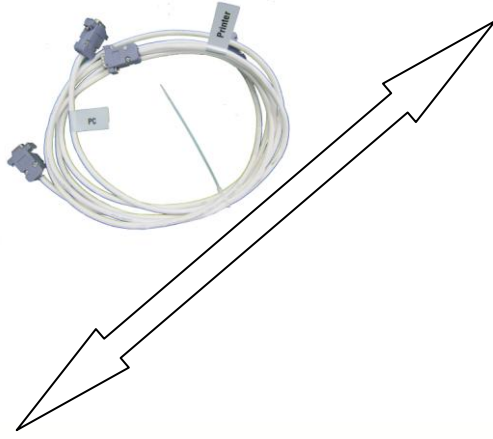


Fig. 3

5. Connecting of SM99 and PC

RS232 port



PC Remote



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ENVIRONMENT PROTECTION & SAFETY FOR
PETROLEUM RETAIL INDUSTRY

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