



# INSTALLATION MANUAL

## CONSOLE MAGLINK LX



## INDEX

REVISION INDEX.....	2
INTRODUCTION .....	3
GENERAL WARNINGS .....	3
DESCRIPTION .....	4
COMPATIBLE PROBES MODEL LIST .....	4
INSTALLATION.....	5
MAIN COMPONENTS .....	6
PROBES CONNECTIONS .....	8
MAGLINK LX SLAVE CONNECTORS .....	9
CONSOLE VIA RS232 HOST CONNECTION.....	10
MANAGEMENT SYSTEMS COMMON CONNECTION .....	11
PROGRAM DESCRIPTION.....	12
MANUAL UPDATE PROCEDURE.....	18
SEND LOG INFORMATION FOR SUPPORT .....	18
STOCK PRINTOUT .....	19
SHIFT REPORT .....	19
EXTERNAL DISCONNECTION EQUIPMENT .....	20
SAFETY INSTRUCTIONS .....	20
PRODUCT LABEL .....	21
CERTIFICATION.....	22
NOTIFICATION.....	26

## REVISION INDEX

DATE	REVISION NUMBER	DESCRIPTION	Firmware revision
04-03-2014	1	INITIAL RELEASE	1.0.0
26-02-2015	2	Inversion of com ports	2.0.0
17-03-2015	3	Added application description section	2.0.0
17-04-2015	4	Added notification and certification	2.1.x
22-04-2015	5	New test report, certification and notification	2.1.x
15-07-2015	6	Manual update procedure; reconciliation info, shift report; stock printout; send log information for support; program description	2.2.x

## INTRODUCTION

The handbook gives all the instructions for installation and use of Maglink LX console.

## GENERAL WARNINGS

- Please read carefully the instructions given in this handbook before working on this equipment.
- The manufacture is not responsible of any operation performed not mentioned in this handbook.
- In case of failure or faulty operations, please refer to authorized people in charge for maintenance or directly to the manufacturer.
- The manufacturer refuses all responsibility for any eventual injury and/or damage to things caused by the missing observation of safety requirements.
- The assigned personnel is required to know all the safety requirements relative to this equipment.
- In case of doubts about functioning of the equipment please refer to authorized people for maintenance or directly to the manufacturer.
- Every tampering of the equipment relieves the manufacturer from any responsibility in front of competent authorities.



This product is used in fuel tanks and in hazardous areas for risk of explosion and fire. Subterranean leakage of fuel tanks may cause serious damages to environment and people injury.

Improper use, not in accordance with the requirements, may affect the safety of the product

Note: Start Italiana Srl, in respect of its quality duties may modify its production and the data shown on this handbook. This manual cannot be reproduced, totally and neither partially, without authorization.



**This product complies with EU Directive 2002/96/EC.**

The crossed-bin symbol on the device indicates that the product, at the end of its lifecycle, should be disposed separately from household waste, must be brought to an electrical and electronic equipment collection point.

## DESCRIPTION

Console for monitoring level gauge and tanks alarms. Bus management up to 32 probes, 16 ON-OFF sensors, 4 slave displays, 2 channel each, 4 integrated relays and other 16 relays on the bus with outputs and programmable events, 20 relays in total. Can be interfaced with the major management systems located in petrol stations.

Main features	
Supply	100-240 V~, 50/60Hz
Consumption	15 VA
Working temperature	-10 °C ÷ +50 °C
Relative humidity	From 5% to 95% (non condensing)
Number of probes	32
Number of ON-OFF sensors type XLR	16
Number of ON-OFF reed sensors	6 (only with Dipswitch 2 ON)
Number of slave display 2 ch	4
Relay output	20 (4 integrated + additional slave 16 relay card)
Low power relay output	0.5A, 33V~ or 2A, 30Vdc
Probes serial communication with	RS485
Host Communication	RS232
Printer communication and software for console configuration	RS232
Connection with software for console configuration	TCP/IP
Enclosure	Plastic
Protection	IP20
Dimensions	265x190x95 mm
Probes output power supply	12Vdc, 100mA for each probe output, MR3 and MR4 connectors

## COMPATIBLE PROBES MODEL LIST

The following probes models can be connected to MAGLINK LX console:

- XMT EXD 485 polling mode
- XMT SI 485 polling mode
- XMT SI RF
- XLR SI 485 polling mode

And auxiliary equipment:

- Slave relay boards
- Local or remote printer
- Reed sensors

## INSTALLATION

- If mixed with air, the flammable vapors may cause explosion. Hazardous areas may be originated therefore by the presence of gas or vapors.
- Explosions or fires may cause damage, even lethal.
- This console is not explosion proof.
- Do not install the console in hazardous area.
- Use only fuse 250V – 1A on input power supply

### INSTALLATION SITE

Regarding the installation site, it is necessary to consider that the console must be protected against vibrations and extreme climatic conditions (in particular high/low temperatures, humidity, etc.) which may damage the electrical circuits. Please be sure to install in an area protected from humidity and sprinkles of water.

### 220Vac ELECTRICAL CONNECTION

To realize the electrical connection please proceed as follow:

- Switch off all the power switches on the electrical board panel.
- Connect between board panel and the console using the appropriate connectors.
- To connect driving force, please use cable with 3 wires whose section is at least 1.5 mm<sup>2</sup> (phase, neutral, earth) adequately protected. Supply cable must be approved according to standards IEC 60227 or IEC 60245
- Be sure that the power plug used has ground round connection and that there is a protection device acting against short circuits and overloads.
- The power cable must be always easy recognizable and reachable since it has disconnecting function too.

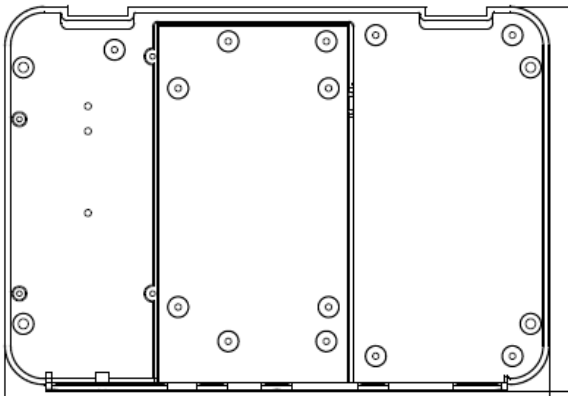
Regarding probes connection, please refer to chapter "Probes connection".



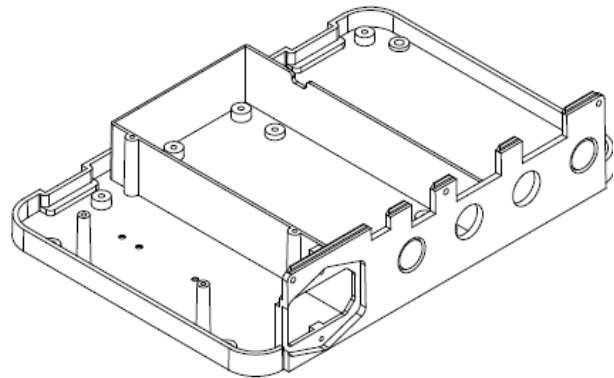
- There is high voltage into the console which may be lethal.
- The equipment installed in hazardous areas shall be explosion-proof or intrinsically safe according to the degree of protection required.

### INSTALLATION PROCEDURE

Fix the console to the wall using the holes on the plastic enclosure. To fix the console to the wall use bolt sleeves.



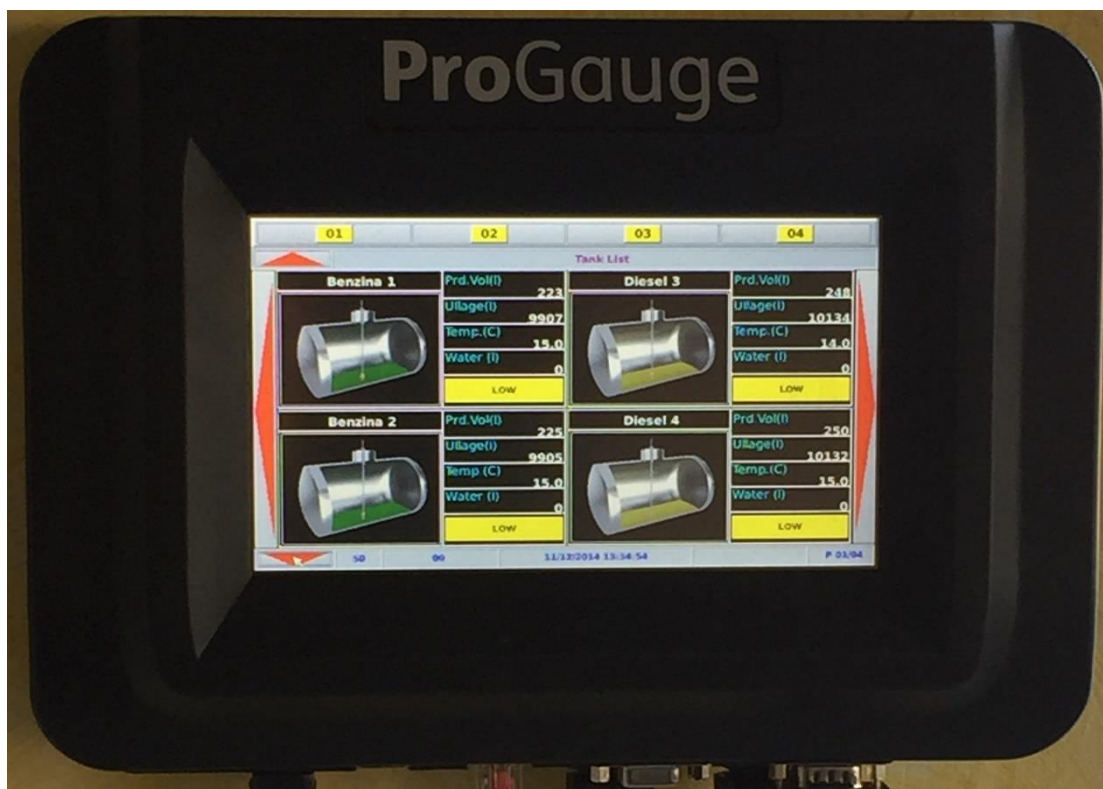
Bottom side.



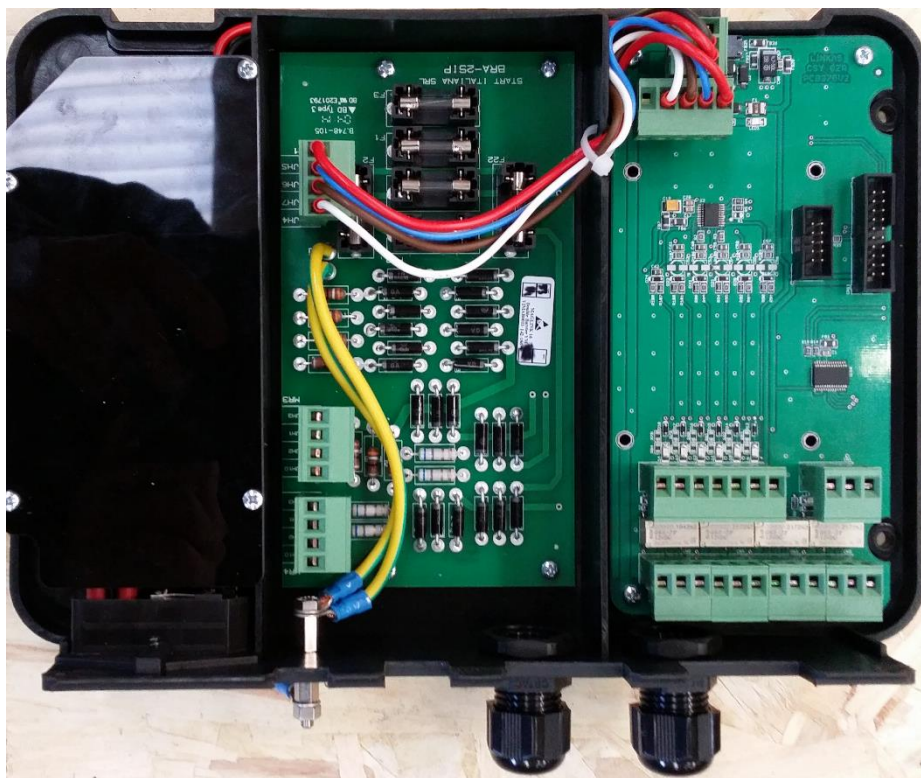
### PRODUCT CLEANING

For product cleaning must be used a cloth dampened only with water and common detergents non aggressive without use of any acids, chemical solvents or organic substances.

## MAIN COMPONENTS



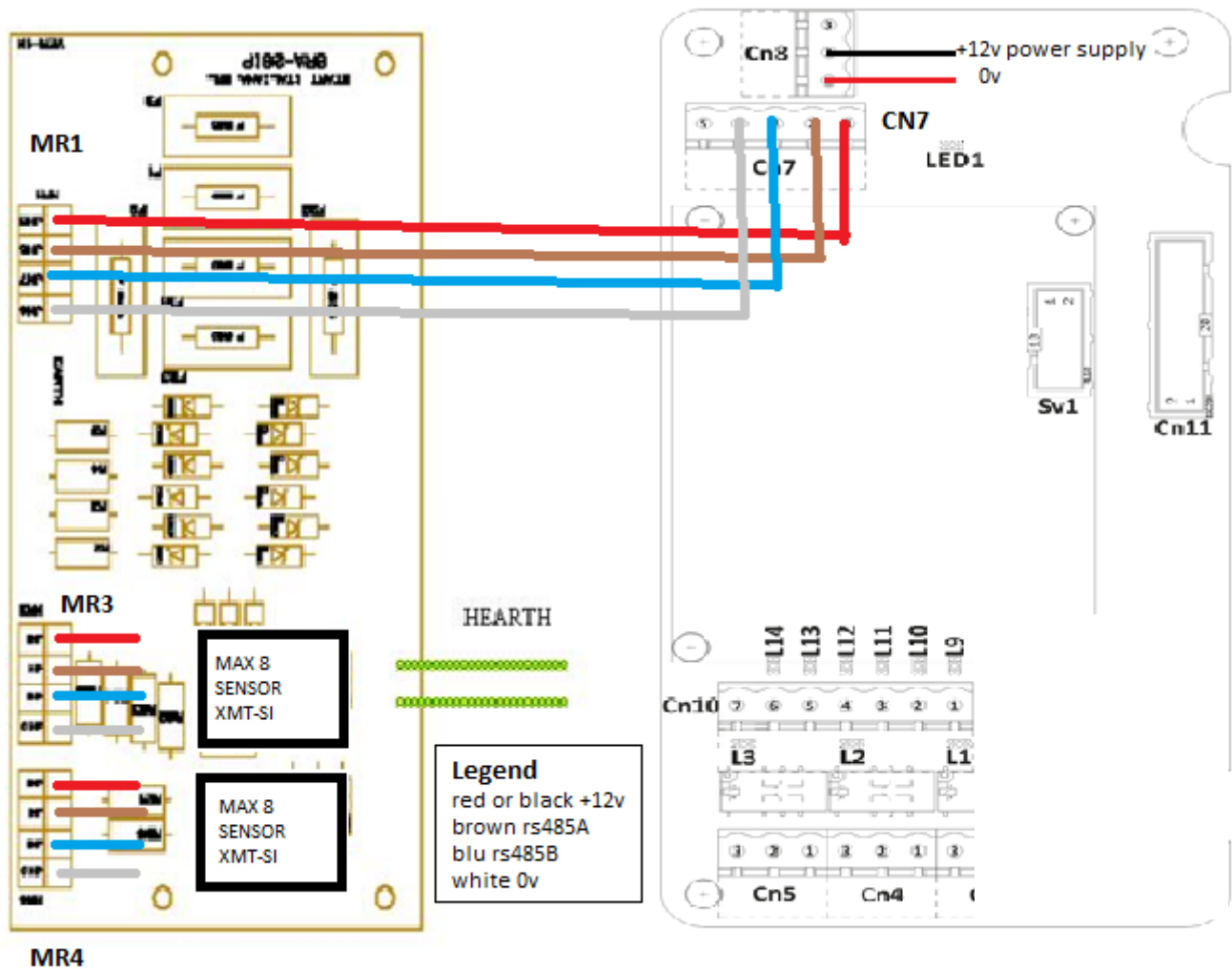
Power supply, intrinsically safe barrier and main board





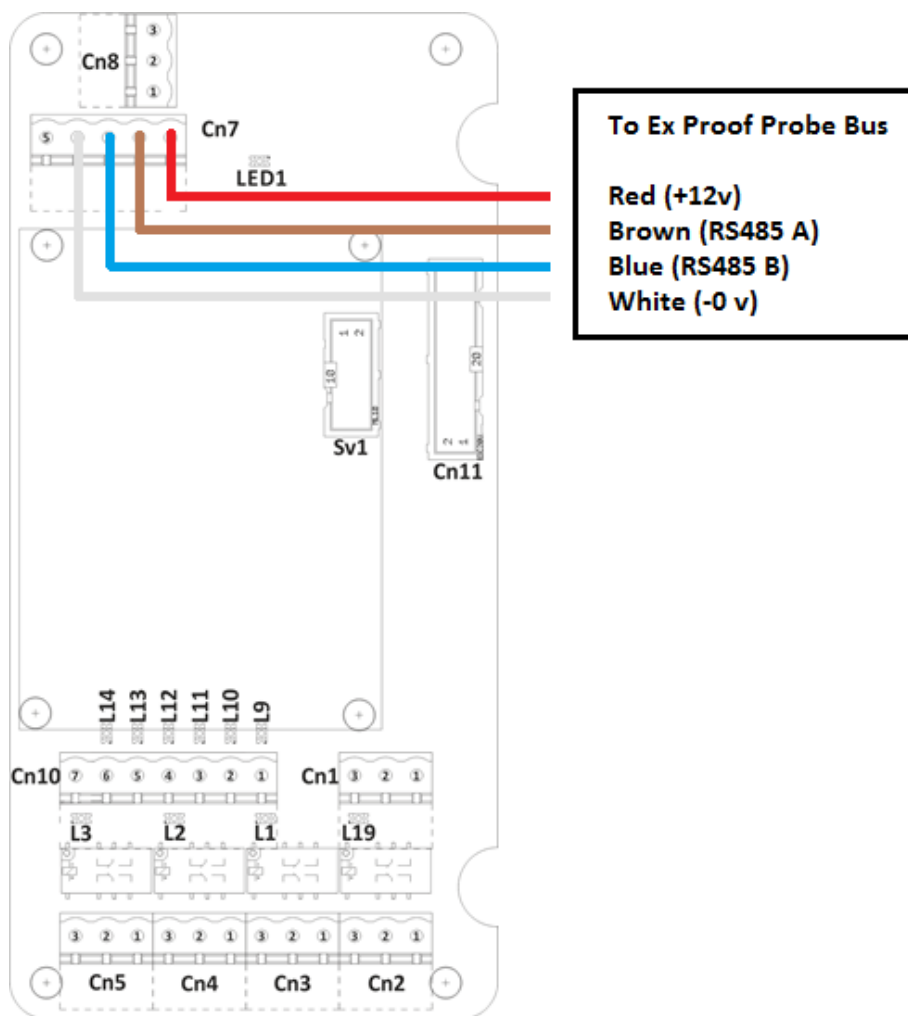
## CONNECTION TO INTRINSICALLY SAFE PROBES MODEL XMT-SI-485 TO BARRIER MODEL BRA-2SIP

If sensors to be connected are more than 16, n. 2 BRA-2SIP are installed and additional external barriers must be used since one barrier can supply up to 8 sensors only.



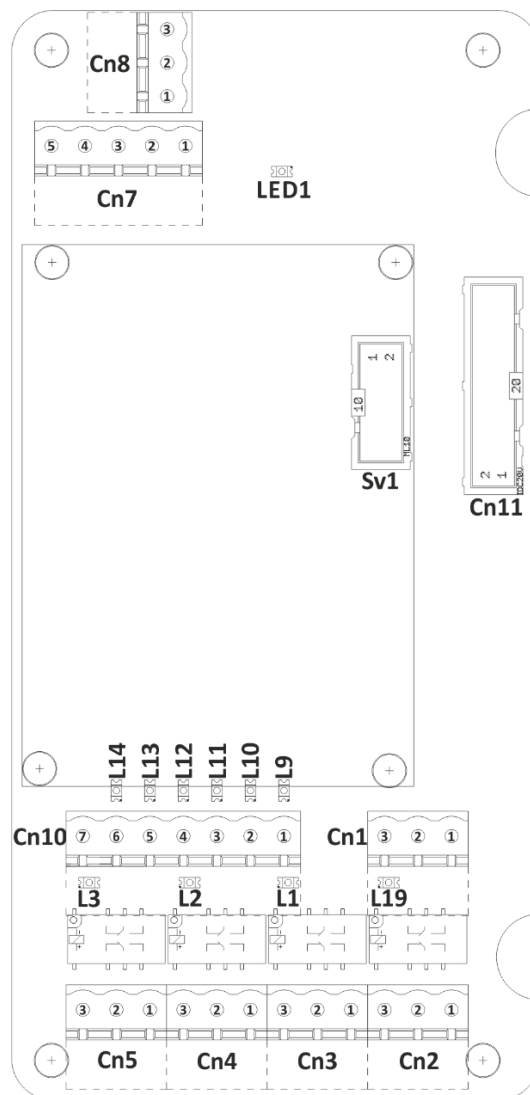
<b>MR3</b> JH3 RED (+12volt) JH1 BROWN (RS485A) JH2 BLUE (RS485B) JH10 WHITE (-0 volt)	<b>MR4</b> JH3 RED (+12volt) JH1 BROWN (RS485A) JH2 BLUE (RS485B) JH10 WHITE (-0 volt)
<b>MR1</b> connection to <b>CN7</b> (Main Board Connection)	

## PROBES CONNECTIONS





## MAGLINK LX SLAVE CONNECTORS

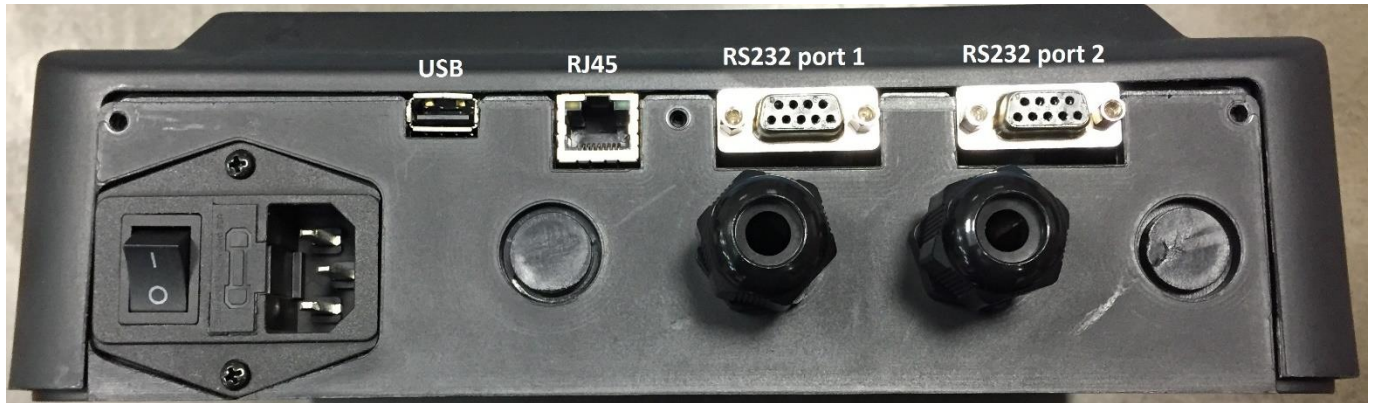


<b>CN1</b>	: CANBUS connector
1-	CANH
2-	CANL
3-	GND
<b>CN2</b>	: Relay1 connector
1-	Normaly open
2-	Common
3-	Normaly Closed
<b>CN3</b>	: Relay2 connector
1-	Normaly open
2-	Common
3-	Normaly Closed
<b>CN4</b>	: Relay3 connector
1-	Normaly open
2-	Common
3-	Normaly Closed
<b>CN5</b>	: Relay4 connector
1-	Normaly open
2-	Common
3-	Normaly Closed

<b>CN11</b>	: Main card connector
<b>SV1</b>	: Modem connector
<b>CN7</b>	: RS485 port
1-	Probe power output
2-	RS485-A
3-	RS485-B
4-	GND
5-	NC
<b>CN8</b>	: Power input(+13.7V)
1-	NC
2-	GND
3-	+13.7V
<b>LED1</b>	: Probe power status led
<b>L19</b>	: Relay1 status led
<b>L1</b>	: Relay2 status led
<b>L2</b>	: Relay3 status led
<b>L3</b>	: Relay4 status led
<b>L9</b>	: Input6 status led
<b>L10</b>	: Input5 status led
<b>L11</b>	: Input4 status led
<b>L12</b>	: Input3 status led
<b>L13</b>	: Input2 status led
<b>L14</b>	: Input1 status led

## CONSOLE VIA RS232 HOST CONNECTION

For distances up to 15mt the remote connection between MAGLINK LX and host can be done using serial link RS232C as per the indications given but the system to which it is connected.



### USB

**RJ45** used to connect MagLink LX to local network for web access configuration (WebConfig). If you connect directly to other computer remember to use a cross cable.

**RS232 PORT 1** For software management host connection, printer connection

**RS232 PORT 2**

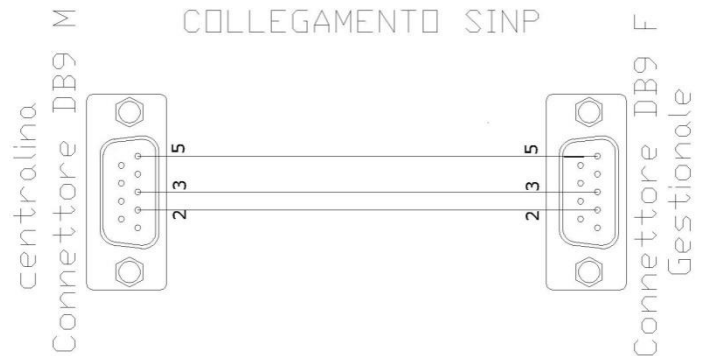
## MANAGEMENT SYSTEMS COMMON CONNECTION

MAGLINK LX can be connected to several management systems (PIGNONE; GILBARCO; TOKHEIM; DRESSER; Probe Emulation; DIALOG; RETALIX; DOMS; ORPAK; TOREX; TLG-SMITHS).

ES:

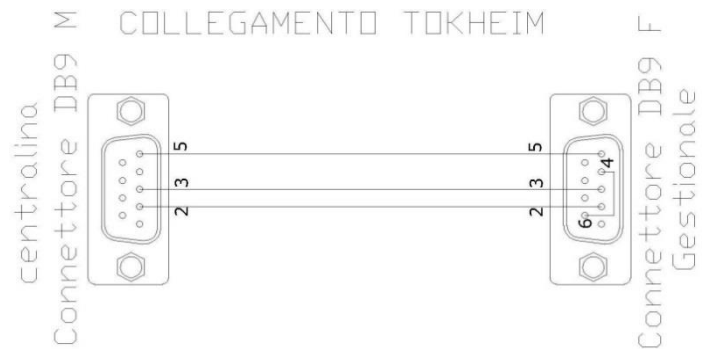
DRESSER WAYNE SINP:

CONSOLE		SYSTEM
PIN 2	>	PIN 2
PIN 3	>	PIN 3
PIN 5	>	PIN 5



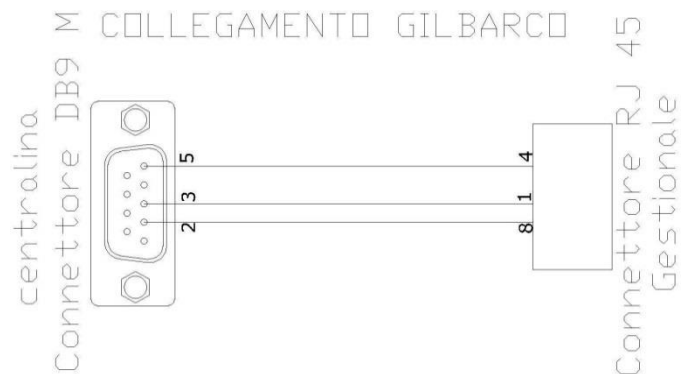
TOKHEIM and DIALOG:

CONSOLE		SYSTEM
PIN 2	>	PIN 2
PIN 3	>	PIN 3
PIN 5	>	PIN 5
PIN 4	>	PIN 6



GILBARCO Passport Europe (9600 071):

CONSOLE		SYSTEM
PIN 2	>	PIN 8
PIN 3	>	PIN 1
PIN 5	>	PIN 4

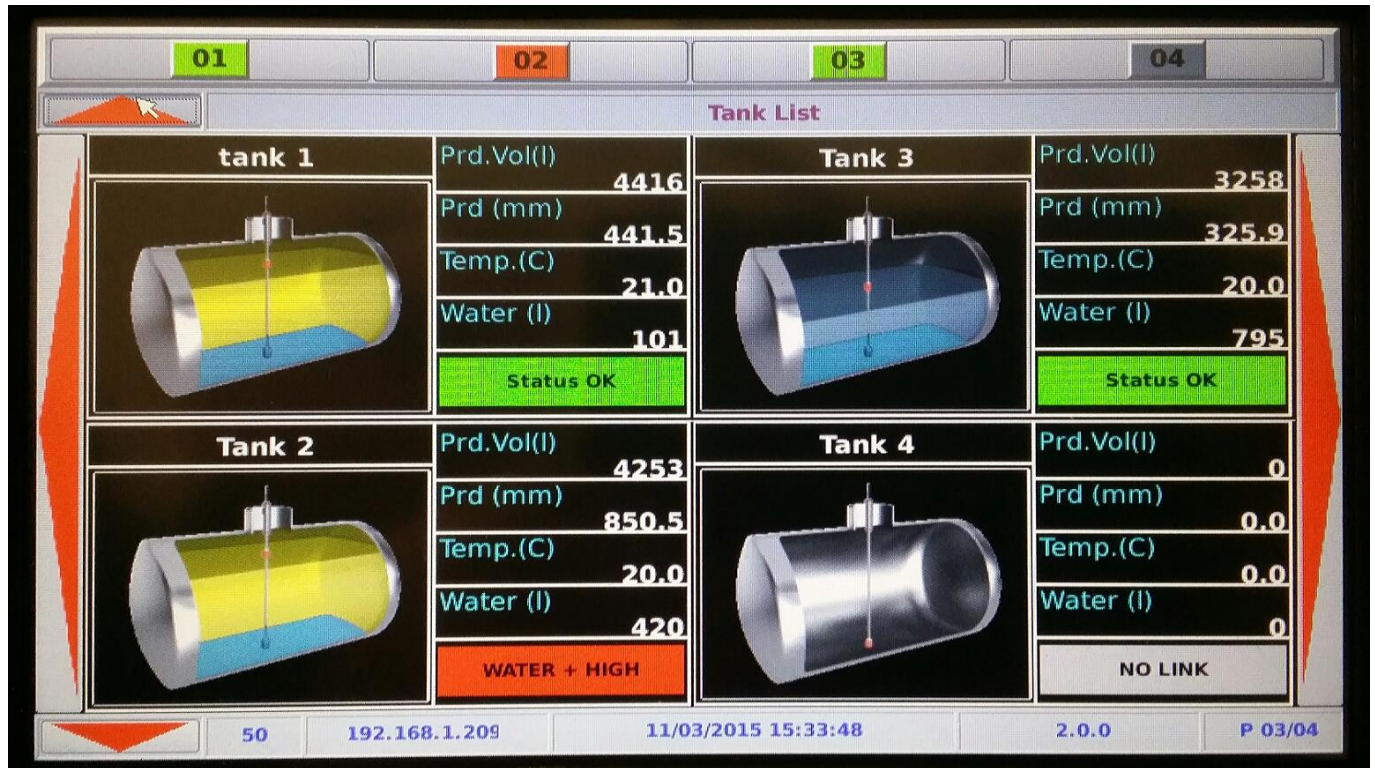


DOMS (9600 E71)  
DIALOG (1200 N81)  
TOREX (2400 E71)

## PROGRAM DESCRIPTION

The console is provided with a Qt application that handles all fundamental values for optimal tank management.

The application is very easy and user friendly. It has a sort of circular menu from which the user can navigate through all available functions. The application first page is the following:

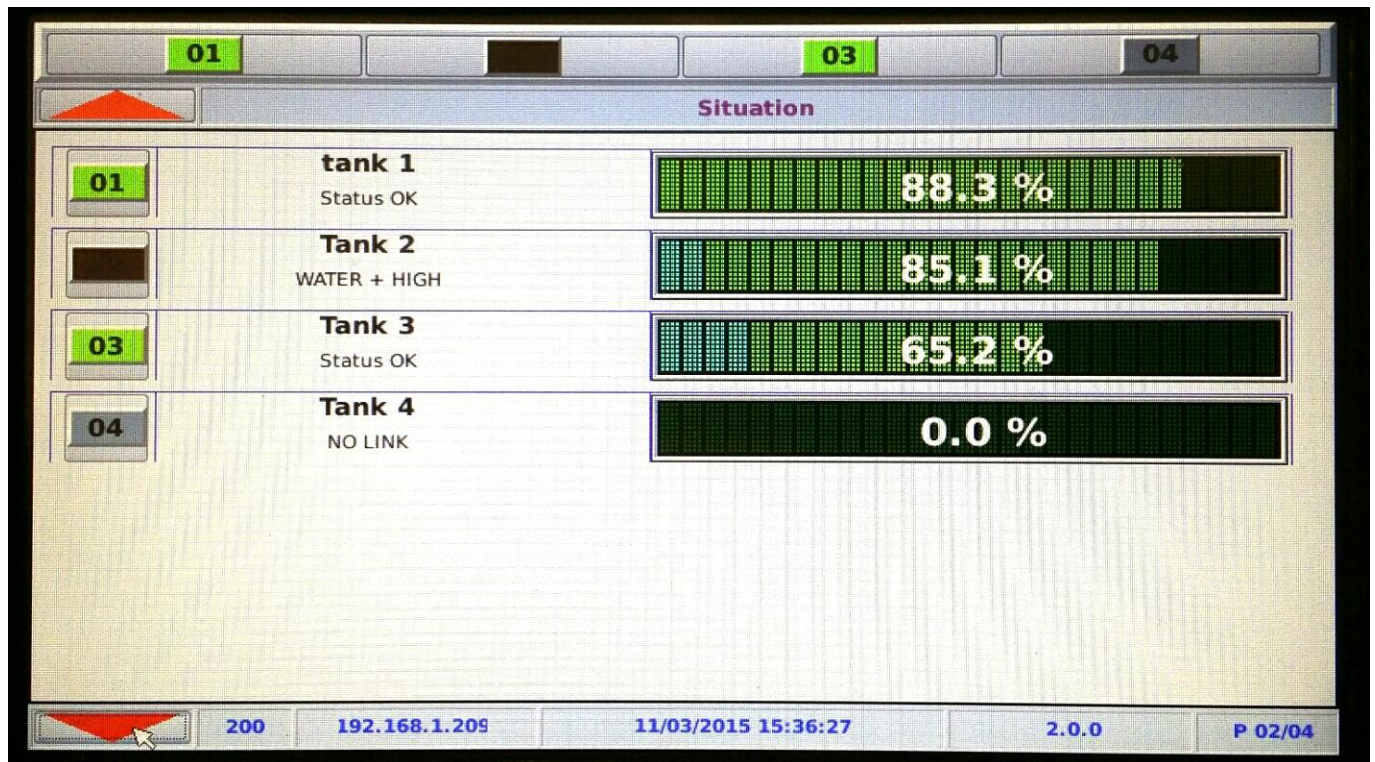


In this page it's summarized all main tank information. At the very top you'll find configured tank list. The page can contain a maximum of 4 tanks, if you want to see other tanks you must click on the big red right/left arrow button that you find at the right/left edge of the touch screen.

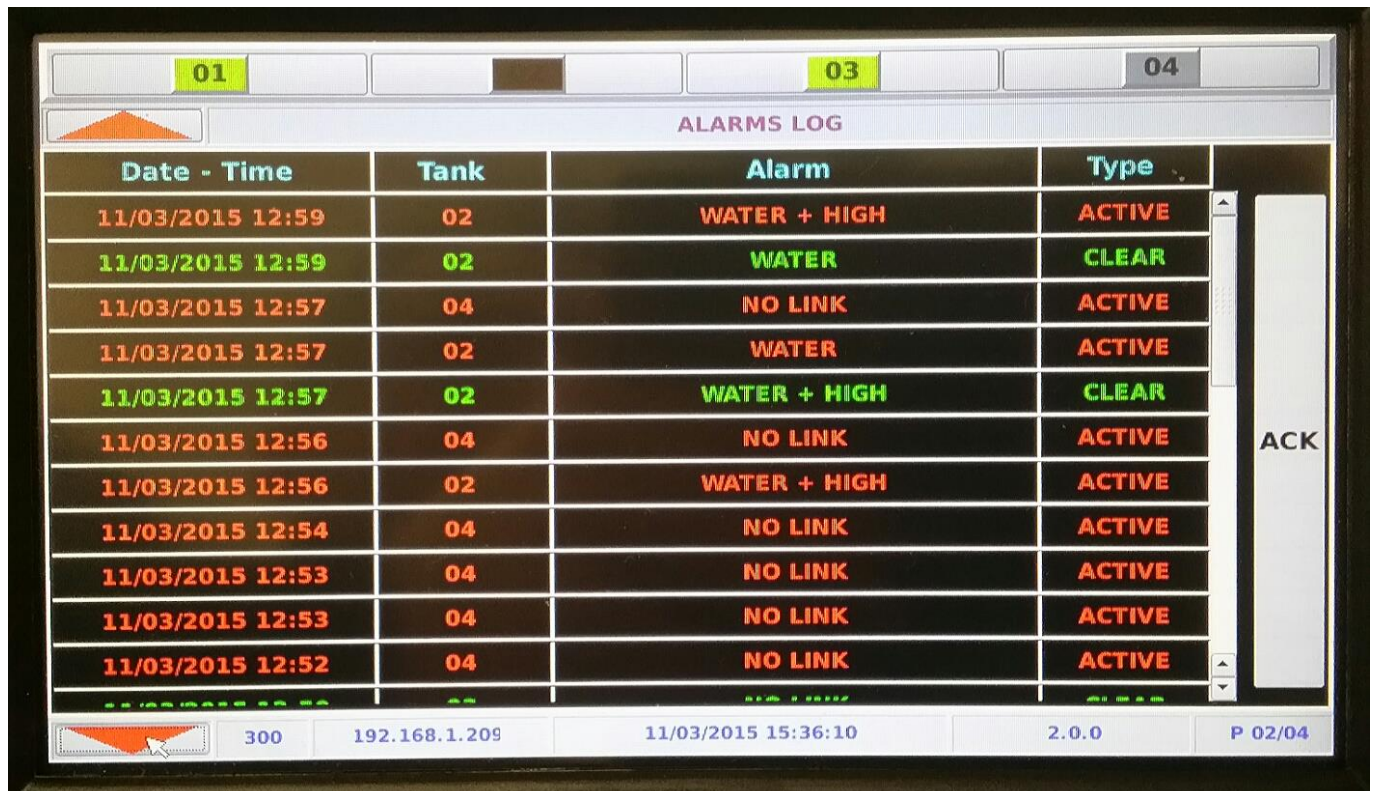
Console functions are accessible by clicking up/down red arrow button that you find near the top left corner and bottom left corner of the touch screen. Use these up/down arrows button to navigate through all console function as shown below:



Tank summary with percentage tank load.



Alarm log.



The 'ALARMS LOG' screen displays a table of alarm events. The table has four columns: Date - Time, Tank, Alarm, and Type. The events are listed in descending order of time. To the right of the table is a vertical 'ACK' button. The bottom status bar shows the number 300, IP address 192.168.1.209, date and time 11/03/2015 15:36:10, version 2.0.0, and page number P 02/04.

Date - Time	Tank	Alarm	Type
11/03/2015 12:59	02	WATER + HIGH	ACTIVE
11/03/2015 12:59	02	WATER	CLEAR
11/03/2015 12:57	04	NO LINK	ACTIVE
11/03/2015 12:57	02	WATER	ACTIVE
11/03/2015 12:57	02	WATER + HIGH	CLEAR
11/03/2015 12:56	04	NO LINK	ACTIVE
11/03/2015 12:56	02	WATER + HIGH	ACTIVE
11/03/2015 12:54	04	NO LINK	ACTIVE
11/03/2015 12:53	04	NO LINK	ACTIVE
11/03/2015 12:53	04	NO LINK	ACTIVE
11/03/2015 12:52	04	NO LINK	ACTIVE

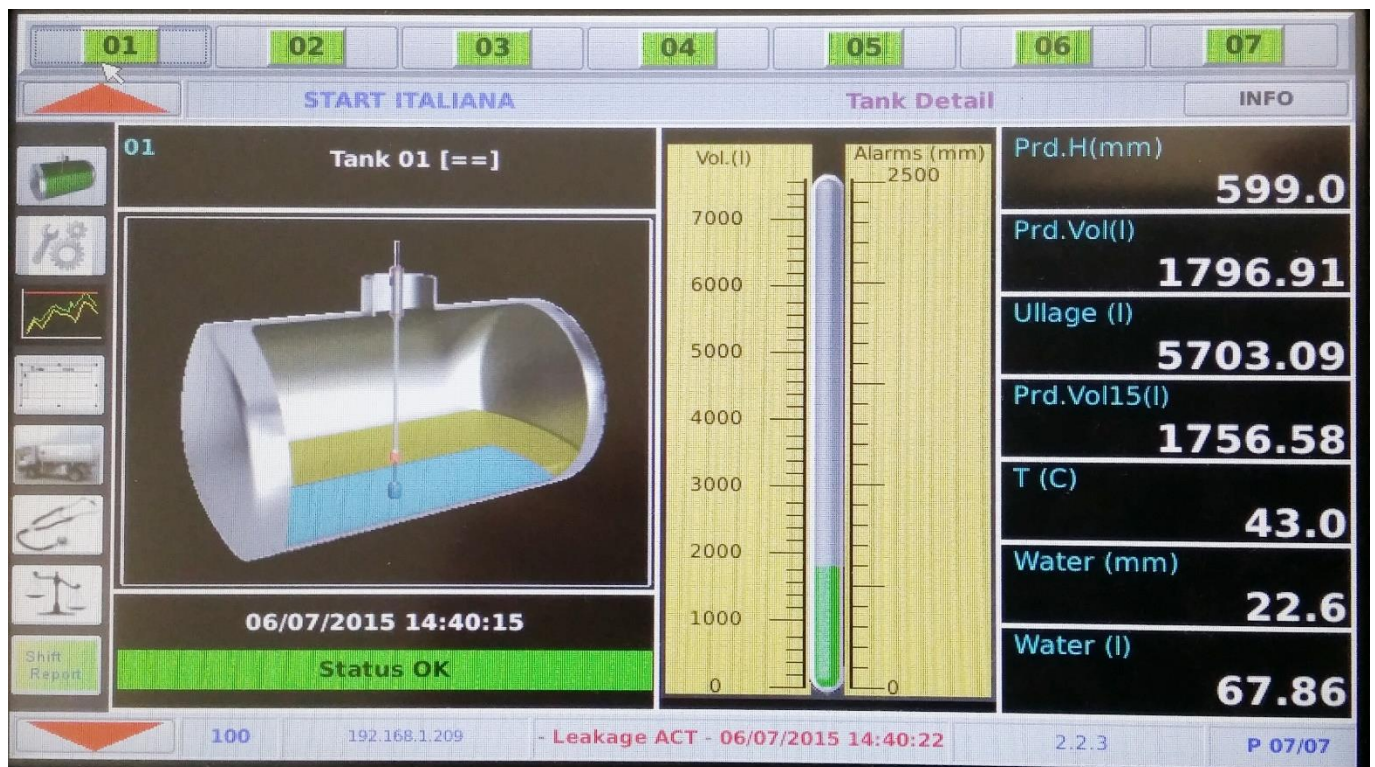
To acknowledge active alarms click on the ACK button to the right of the alarm table.

List fuel represents the tank, fuel, meter configuration for those who have dispensing system connected to the console.

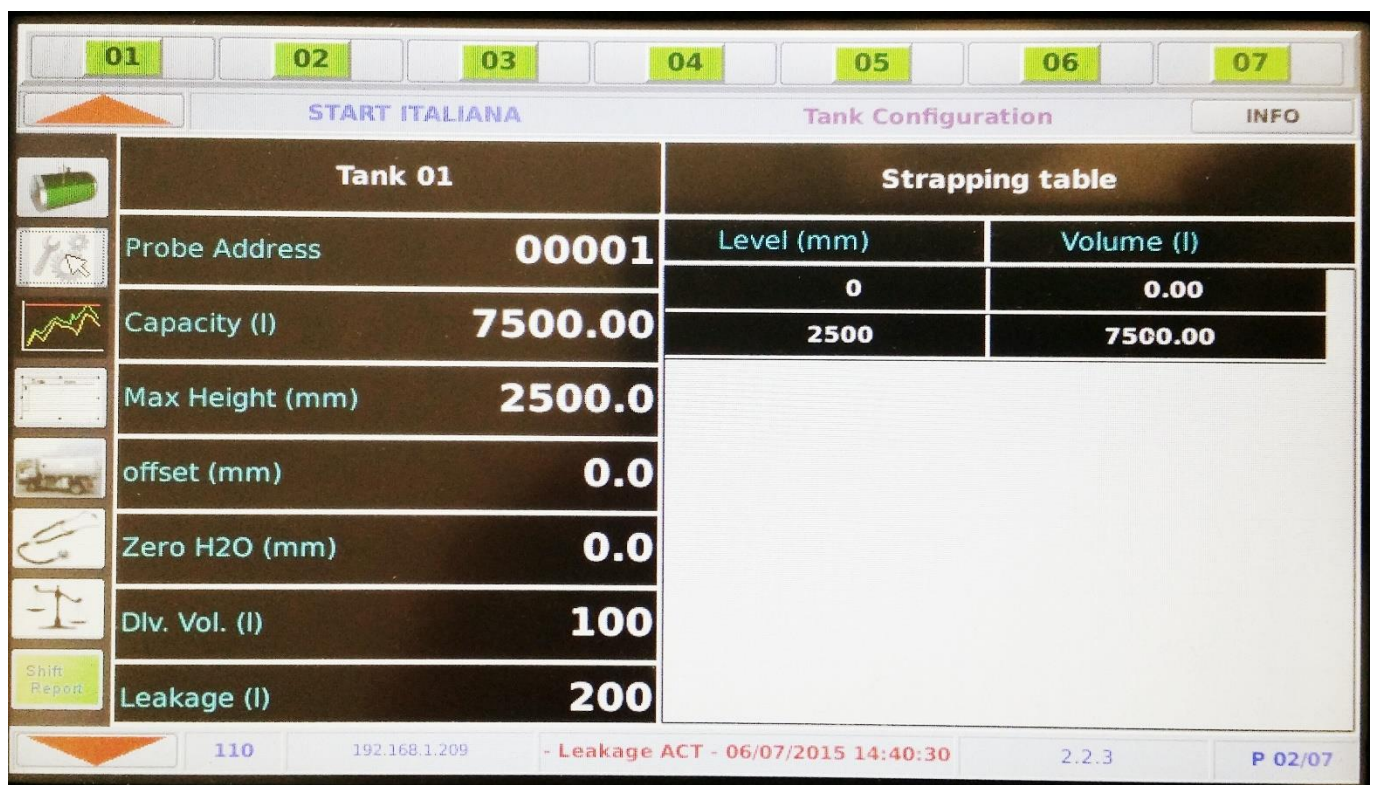
To access detail tank information you can either click on the tank number or directly on the tank image.



Detail tank view. Alarms are graphically reported beside the green level product indicator.



Tank configuration settings.





## History list

01020304050607

START ITALIANAHistory ListINFO



Shift Report

Tank 01 - 06/07/2015

Time	Prd (mm)	Prd (l)	H2O (l)	T (C)	Status
14:40:50	598.97	1797.00	68.00	43.0	00
14:39:50	598.97	1797.00	68.00	43.0	00
14:38:50	598.97	1797.00	68.00	43.0	00
14:37:50	598.97	1797.00	68.00	43.0	00
14:36:50	598.97	1797.00	68.00	43.0	00
14:35:50	598.97	1797.00	68.00	43.0	00
14:34:50	598.99	1797.00	68.00	43.0	00
14:33:50	598.99	1797.00	68.00	43.0	00
14:32:50	598.99	1797.00	68.00	43.0	00
14:31:50	598.99	1797.00	68.00	43.0	00

DAY +1

DAY -1

130192.168.1.209- Leakage ACT - 06/07/2015 14:41:112.2.3P 06/07

## Delivery list

01	02	03	04	05	06	07
START ITALIANA			Delivery List			INFO
Tank 01 -						
Date - Time		Start (l)	End (l)	Qty (l)	Interval (min)	
2015/06/30-11:35		5494.70	269.50	-5225.20	120	
2015/06/30-09:35		2061.30	5494.70	3433.40	1128	



Diagnostic page

**START ITALIANA** Diagnostic INFO

**Tank 01**

Firmware Version 00001VRIC\_RF\_0.1=075

Temperature 00001=+430=+156=+215=053

Diagnostic 01D032=00000013=00010137=00000013=000=000=000=0

150 192.168.1.209 - Leakage ACT - 06/07/2015 14:41:36 2.2.3 P 05/07

Daily reconciliation table

**START ITALIANA** Reconciliation INFO

**Tank 01 - 06/07/2015**

Hour	Start Vol.	End Vol.	Diff.Vol.	Dispenser	Delta Vol.
23	272.50	272.20	-0.30	0.00	-0.30
00	272.20	272.20	0.00	0.00	0.00
01	272.20	272.20	0.00	0.00	0.00
02	272.20	272.50	0.30	0.00	0.30
03	272.50	272.30	-0.20	0.00	-0.20
04	272.30	272.30	0.00	0.00	0.00
05	272.30	272.20	-0.10	0.00	-0.10
06	272.20	272.30	0.10	0.00	0.10
07	272.30	272.10	-0.20	0.00	-0.20
08	272.10	272.20	0.10	0.00	0.10

DAY +1  
DAY -1

160 192.168.1.209 - Leakage ACT - 06/07/2015 14:41:45 2.2.3 P 05/07

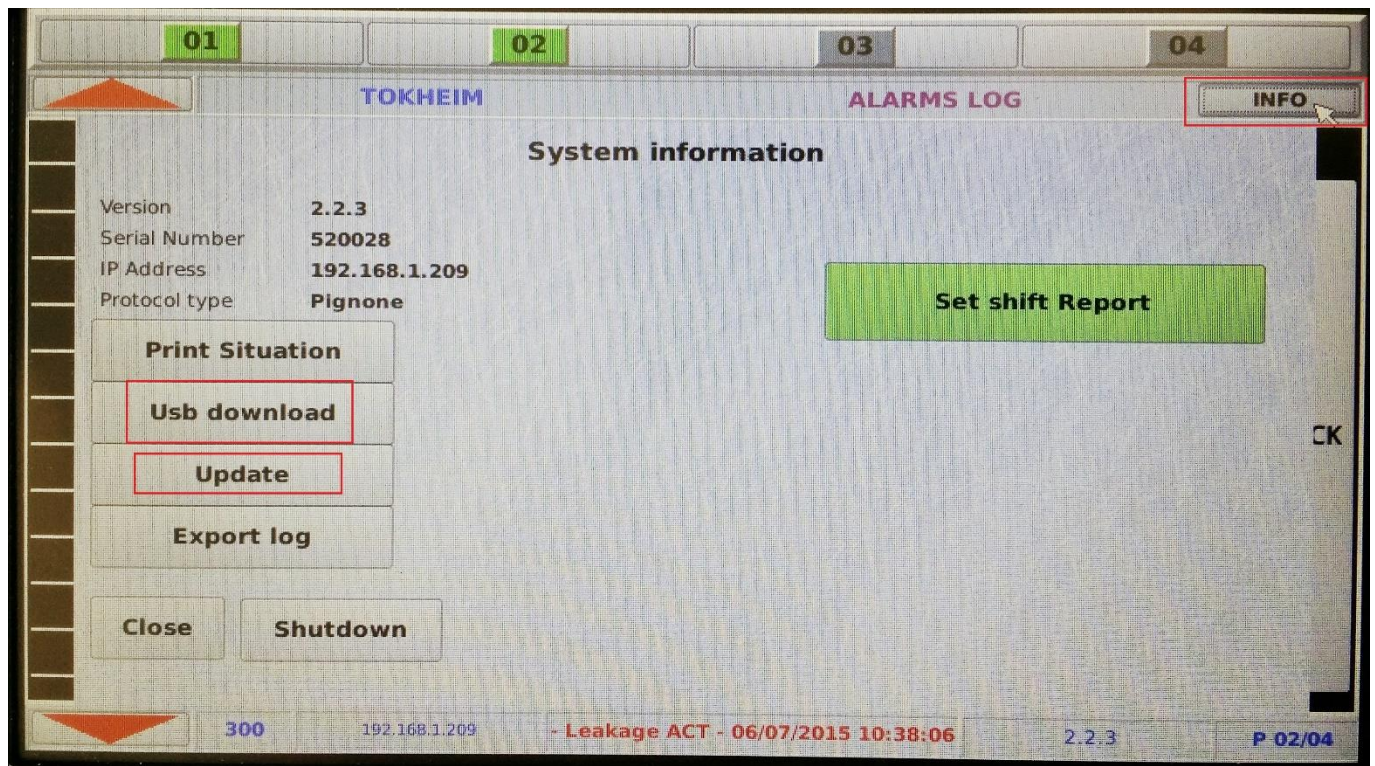
Fuel list is the configuration between tanks and dispensers and noozles.

01	02	03	04	05	06	07		
START ITALIANA				LIST FUEL		INFO		
Date	Hour	Fuel	Nozzle	Start Vol.	End Vol.	Tank	Delta Vol.	Volume (l)
06/ 7/2015	12	01	01	0.00	0.00	01	0.00	0.00
06/ 7/2015	12	01	02	0.00	0.00	02	0.00	0.00
06/ 7/2015	12	02	01	0.00	0.00	01	0.00	0.00
06/ 7/2015	12	03	01	0.00	0.00	01	0.00	0.00
06/ 7/2015	12	03	02	0.00	0.00	02	0.00	0.00
06/ 7/2015	12	03	03	0.00	0.00	01	0.00	0.00
06/ 7/2015	12	04	01	0.00	0.00	01	0.00	0.00



## MANUAL UPDATE PROCEDURE

The console software can and should be updated periodically. The application latest version files can be downloaded in zip format from [www.startitaliana.it](http://www.startitaliana.it) site MagLink-LX section.



To update the console application and the web application follow the steps:

- Download the zip file with the latest version
- Take an usb pen drive with at least 50MB of free space
- **BE SURE THE USB PEN DRIVE IS FAT32 FORMATTED**
- From usb pen drive create from root **lx-update** folder
- Connect the usb pen drive to the computer and unzip the content of the downloaded file in to newly created folder **lx-update**
- Connect the usb pen drive to the console
- Click on the **Info** button to access info page
- Wait until **Usb download** button appears and press the button to copy all updated files to the console **newversion** folder
- Now press **Update** button to complete update procedure
- Most of the times the console will reboot nor the application will be reloaded

## SEND LOG INFORMATION FOR SUPPORT

In case of issues the best solution is to connect the console to the internet. Route the console private IP address to user's public IP address, open port 22 for console access, and port 80 for web access.

When internet connection is not available for any reason user must provide to Startitaliana all information needed for debug process. This is done by pressing **Info** button to access info page then follow the steps:

- Take an usb pen drive with at least 50MB of free space
- **BE SURE THE USB PEN DRIVE IS FAT32 FORMATTED**
- Connect the usb pen drive to the console
- Click on the **Info** button to access info page
- Wait until **Export log** button appears and press the button to start copy process, all required files will be copied to the console **lx-support** folder
- Zip the **lx-support** folder content and email it to [support@startitaliana.it](mailto:support@startitaliana.it)



## STOCK PRINTOUT

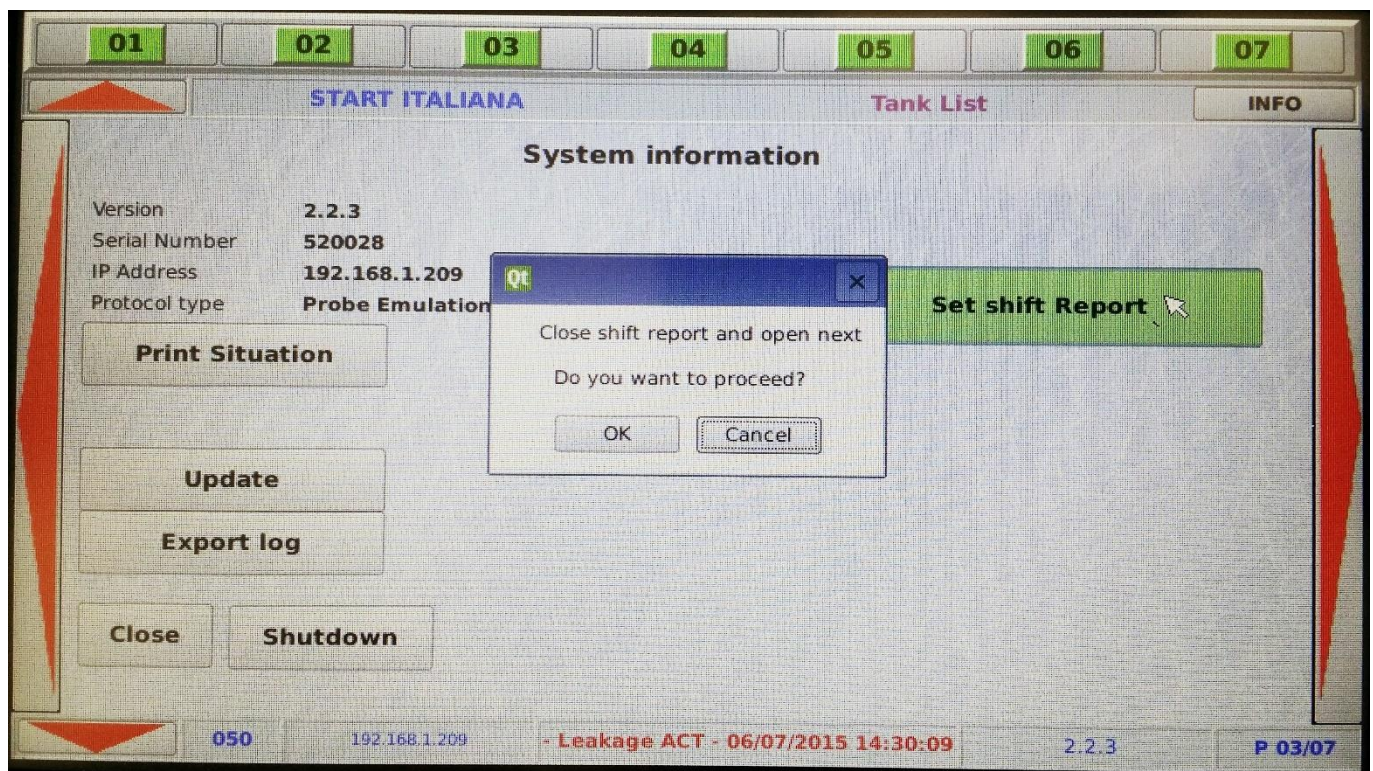
Console can be provided with Sprint printer that must be connected to RS232 com1 serial port. When the printer is connected user can print current stock, this means total product for each tank, summary product stock group by product type.

To proceed with the printout, click on **Info** button to access the info page and then click on **Print situation** button, wait until the ticket printer comes out.

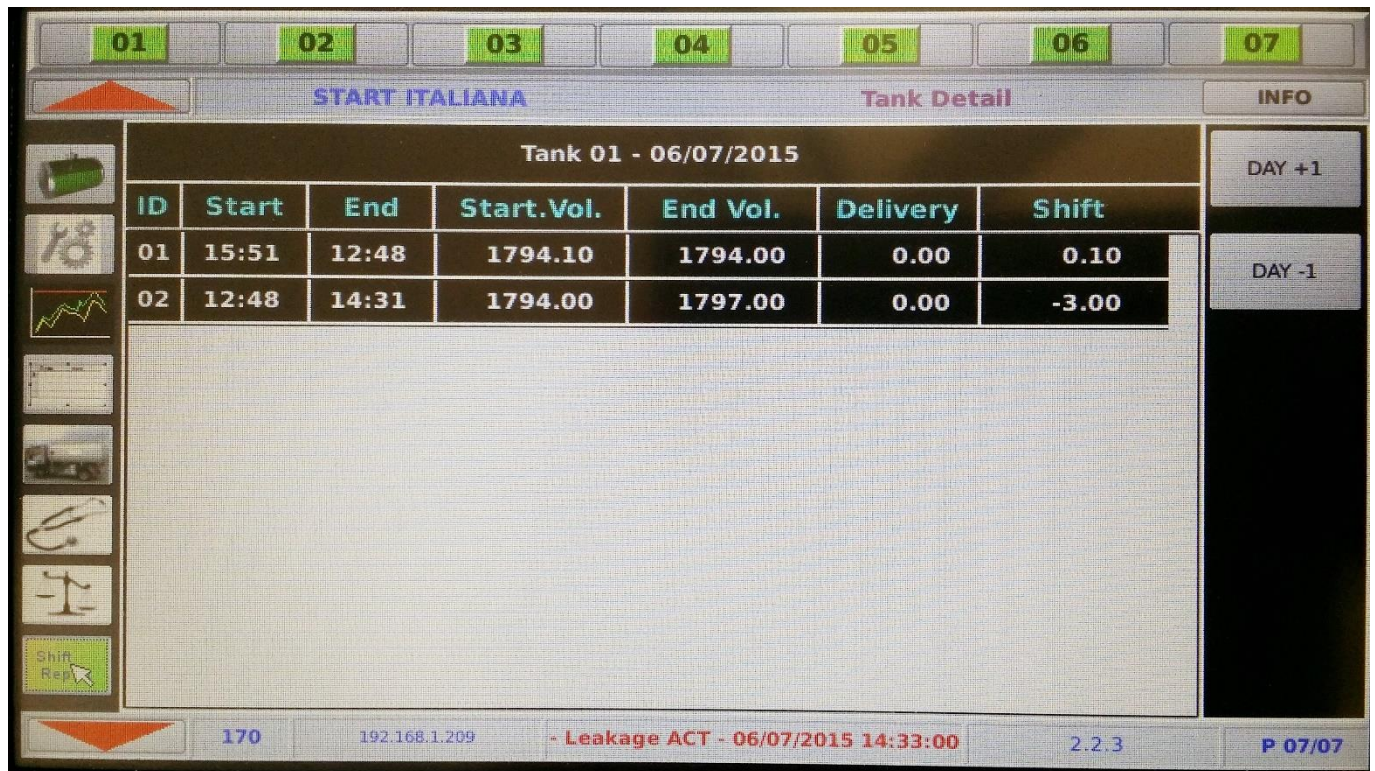
## SHIFT REPORT

Console can manage shift reports. To open/close shifts just follow the instructions below.

To proceed with the shift report, click on **Info** button to access the info page and then click on **Set shift report** button and confirm the following message box. This operation will close current shift and open next one.



You can navigate through the tank dedicated pages and view the daily shift report:



## EXTERNAL DISCONNECTION EQUIPMENT

Install an external magneto thermal breaker, approved by the standards IEC 60947-1 and IEC 60947-3, and marked and installed in accordance with clause 6.11 of EN 61010-1. The magneto thermal easily accessible. Used as a device against overcurrent. Characteristic external magneto thermal breaker: 4 A, 230 V~, 2P.

## SAFETY INSTRUCTIONS

"Safety Instruction" attached.



## PRODUCT LABEL

START ITALIANA SRL

Via Pola,6 – 20813 Bovisio Masciago (MB) ITALY

MAGLINK-LX

Serial nr: xxxxxx

45VA, 100-240V~, 50/60Hz

Working Temperature: -10°C + 50°C



0722 CEC 10 ATEX 025 Rev.3



II (1) G [Exia] IIB

FISCO power supply  $U_m=250V$  [Exia] IIB



ISO 7000-0434B (2400-01)

Caution

## CERTIFICATION



Organismo Notificato n. 1131



- [1] **CERTIFICATO DI ESAME CE DEL TIPO (AII. III)**  
EC-TYPE EXAMINATION CERTIFICATE (Annex III)
- [2] **Apparecchio o Sistema di Protezione inteso per l'uso in atmosfere potenzialmente esplosive, Direttiva 94/9/CE**  
Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC  
CEC 10 ATEX 025 Rev.3
- [3] **Certificato di Esame CE del Tipo numero .....** 14/2010 -AET637  
EC-Type Examination Certificate number
- [4] **Apparecchio o Sistema di Protezione .....** **Barriera a sicurezza intrinseca Tipo BRA-SIP, BRA-SI e BRA-2SIP**  
Equipment or Protective System Intrinsic safety barrier type BRA-SIP, BRA-SI and BRA-2SIP
- [5] **Costruttore .....** **START ITALIANA S.r.l.**  
Manufacturer
- [6] **Indirizzo .....** **Via Pola, 6 – 20813 Bovisio Masciago (MB) - Italy**  
Address
- [7] **Questo apparecchio o sistema di protezione ed ogni sua variante approvata è descritto nell'allegato al presente certificato e nei documenti descrittivi in esso richiamati.**  
This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] **Il CEC, organismo notificato n° 1131, in conformità all'articolo 9 della Direttiva 94/9/CE del Consiglio dell'Unione Europea del 23 Marzo 1994, certifica che questa apparecchiatura o sistema di protezione è conforme ai Requisiti Essenziali di Sicurezza e Salute per il progetto e la fabbricazione di apparecchiature e sistemi di protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'Allegato II della Direttiva.**  
CEC, notified body No. 1131, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
**I risultati dell'esame e dei test sono descritti nel rapporto confidenziale elencato nella sezione 16.**  
The examination and test results are recorded in confidential reports listed in section 16.
- [9] **La conformità ai Requisiti Essenziali di Sicurezza e Salute è assicurata dalla conformità alle:**  
Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0: 2012; EN 60079-11: 2012**  
Nel caso in cui tra le norme tecniche citate fossero presenti norme non armonizzate, la conformità ai Requisiti essenziali in materia di Sicurezza e Salute è comunque stata verificata.  
If standards not listed in the list of ATEX Harmonised Standards are used, compliance to the Essential Health and Safety Requirements is verified anyway.
- [10] **Il simbolo "X" posto dopo il numero del certificato indica che l'apparecchiatura o il sistema di protezione è soggetto a condizioni speciali per un utilizzo sicuro, specificate nell'allegato al presente certificato.**  
If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] **Questo Certificato di esame CE del Tipo è relativo soltanto al progetto, agli esami ed alle prove dell'apparecchio o sistema di protezione specificato in accordo con la Direttiva 94/9/CE. Ulteriori requisiti di questa Direttiva si applicano al processo di produzione e fornitura dell'apparecchiatura o sistema di protezione. Questi requisiti non sono oggetto del presente certificato.**

This certificate may only be reproduced in its entirety and without any change, schedule included

**CEC - CONSORZIO EUROPEO CERTIFICAZIONE S.C.A.R.L.**

Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (Mi) Italy - tel. +39.0331.442 266- fax +39.0331.440 054  
www.consorzioccc.com - info@consorzioccc.com - C.F./P.IVA 13073160155 - Reg. Impr. MI 13073160155 - R.E.A. 1612104  
AET\_CEC rev.3 2014/04/15 Page 1 of 4



**CEC – CONSORZIO EUROPEO CERTIFICAZIONE**  
**Certificato di Esame CE del Tipo**  
**EC-Type Examination Certificate**



Organismo Notificato n. 1131

This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] **L'apparecchiatura o sistema di protezione deve riportare i seguenti contrassegni:**

The marking of the equipment or protective system shall include the following:

**Barriera BRA-SIP, BRA2SIP:**



II (1) G [Exia] IIB

FISCO power supply  $U_m = 250\text{ V}$  [Exia] IIB

**Barriera BRA-SI:**



II (1) G [Exia] IIB

FISCO power supply  $U_m = 400\text{ V}$  [Exia] IIB

Legnano, 18 02 2015



PRD n° 114B

ISP n° 071E

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreement

**CONSORZIO EUROPEO CERTIFICAZIONE**

L'ORGANO DELIBERANTE

Il Direttore Tecnico  
(A. FUGAZZI)

Il Direttore Generale  
(L. TIMOSSÌ)

**CEC - CONSORZIO EUROPEO CERTIFICAZIONE S.C.A.R.L.**

Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (Mi) Italy - tel. +39.0331.442 266- fax +39.0331.440 054  
www.consorzioccc.com - info@consorzioccc.com - C.F./P.IVA 13073160155 - Reg. Impr. MI 13073160155 - R.E.A. 1612104

Page 2 of 4

**CEC – CONSORZIO EUROPEO CERTIFICAZIONE**  
**Certificato di Esame CE del Tipo**  
**EC-Type Examination Certificate**



Organismo Notificato n. 1131

[13]

**ALLEGATO – SCHEDULE**

[14]

**CERTIFICATO DI ESAME CE DEL TIPO n° CEC 10 ATEX 025 Rev.3**  
to EC-TYPE EXAMINATION CERTIFICATE no. CEC 10 ATEX 025 Rev.3

[15]

**Descrizione – Description**

**Il dispositivo BRA-SIP è una barriera passiva a sicurezza intrinseca per alimentare e scambiare dati con dispositivi siti in zona pericolosa. La BRA-SIP è dotata di un canale per l'alimentazione e di un doppio canale per l'interfaccia RS485.**

The BRA-SIP device is an intrinsic safety passive barrier which is used to power and to exchange data with devices in the hazardous zone. The Bra-SIP has a channel for power supply and it has a dual-channel for the RS485 interface.

**Il dispositivo BRA-SI è una barriera completamente isolata galvanicamente per alimentare e scambiare i dati con dispositivi siti in zona pericolosa. Un dispositivo tipico è, ad esempio, un trasmettitore di dati di processo con alimentazione a 12 Vdc ed interfaccia RS485.**

The BRA-SI device is a completely galvanically isolated barrier which is used to power and to exchange data with devices in the hazardous area sites. A typical device is, for example, a process data transmitter with a 12 Vdc power supply and a RS485 interface.

**Il dispositivo BRA-2SIP è una barriera passiva a due canali per alimentare e scambiare dati con dispositivi siti in zona pericolosa. La barriera è costituita da due unità identiche aventi le stessa configurazione della barriera singola BRA-SIP.**

The BRA-2SIP device is a dual-channel passive barrier which is used to power and to exchange data with devices in the hazardous zone. The barrier consists of two identical units (UNIT1 and UNIT2) with the same configuration of the single barrier BRA-SIP.

**Caratteristiche nominali / Dati Elettrici – Rated characteristics / Electrical data**

**BRA-SIP e BRA-2SIP:**

**Alimentazione/Power = 14 Vmax**

- Um= 250 V
- Io= 100 mA
- Lo= 1.5 mH
- Po= 0.153 W
- Uo= 14 Vmax
- Co= 3.55 µF
- Ree (5-3) = 15.3Ω

**DATA I/O = 6 Vmax**

- Um= 6 V
- Io= 100 mA
- Lo= 6 mH
- Po= 0.126 W
- Uo= 6 Vmax
- Co= 40 µF
- Ree (8-1) = 12.6 Ω

**BRA-SI:**

**Alimentazione/Power = 18...25 Vmax**

- Um= 400 V
- Io= 100 mA
- Lo= 1.5 mH
- Po= 0.153 W
- Uo= 14.05 Vmax
- Co= 3.55 µF

**CEC - CONSORZIO EUROPEO CERTIFICAZIONE S.C.A.R.L.**

Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (Mi) Italy - tel. +39.0331.442 266- fax +39.0331.440 054  
www.consorzioccec.com - info@consorzioccec.com - C.F./P.IVA 13073160155 - Reg. Impr. MI 13073160155 - R.E.A. 1612104  
Page 3 of 4



**CEC – CONSORZIO EUROPEO CERTIFICAZIONE**  
**Certificato di Esame CE del Tipo**  
**EC-Type Examination Certificate**



Organismo Notificato n. 1131

[13]

**ALLEGATO – SCHEDULE**

[14]

**CERTIFICATO DI ESAME CE DEL TIPO n° CEC 10 ATEX 025 Rev.3**  
to EC-TYPE EXAMINATION CERTIFICATE no. CEC 10 ATEX 025 Rev.3

**DATA I/O = 12 Vmax**

- Um= 12 V
- Io= 100 mA
- Lo= 6 mH
- Po= 0.126 W
- Uo= 6 Vmax
- Co= 40 µF

**Test di Routine / Routine tests**

EN 60079-11 §11.1: Routine tests for diode safety barriers

**Avvertenze di targa / Warning label**

None

[16]

**Rapporto numero / Report Number: CEC 14/2010 – RET 001**

[17]

**Condizioni speciali per un utilizzo sicuro – Special conditions for safe use**

**Nessuna – None.**

**L'efficacia e l'affidabilità di questi apparecchi sono garantite seguendo le istruzioni del Manuale d'uso. Non sono ammesse modifiche non autorizzate rispetto al fascicolo tecnico agli atti.**

Special conditions for safe use depends on correct following of manufacturer's manual. Further modification are not allowed.

[18]

**Requisiti Essenziali di Sicurezza e Salute – Essential Health and Safety Requirements**

**Nessuno – None. Riguardo ai Requisiti Essenziali di Sicurezza e Salute questo documento verifica la conformità solo agli standard Ex. La dichiarazione di Conformità del Produttore dichiara la conformità con altre Direttive pertinenti.**

Concerning EHSR this schedule verifies the compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

[19]

**Documenti descrittivi – Descriptive documents**

**I documenti di riferimento listati di seguito costituiscono la documentazione tecnica dell'apparecchio o sistema di protezione oggetto di questo certificato. Questi documenti sono confidenziali e sono a disposizione delle sole autorità competenti.**

**Una copia di questi documenti è conservata presso l'archivio del CEC.**

The descriptive documents quoted hereafter constitute the technical documentation of the equipment or protective system, subject of this certificate. This documents are confidential and they are available only to the authorities.

One copy of all documents is kept in CEC files.

**Fascicolo tecnico, AR15ExTR001**

L'ISPETTORE INCARICATO  
Dott. Ing. Giuseppe TERZAGHI

Organo deliberante

Antonio FUGAZZI

Data: 18/02/2015

**CEC – CONSORZIO EUROPEO CERTIFICAZIONE S.C.A.R.L.**

Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (Mi) Italy - tel. +39.0331.442 266- fax +39.0331.440 054  
www.consorzioccc.com - info@consorzioccc.com - C.F./P.IVA 13073160155 – Reg. Impr. MI 13073160155 – R.E.A. 1612104  
Page 4 of 4

# NOTIFICATION

**CESI**



CESI S.p.A.  
Via Rubattino 54  
I-20134 Milano - Italy  
Tel: +39 02 21251  
Fax: +39 02 21255440  
e-mail: info@cesi.it  
www.cesi.it

Schema di certificazione

**CESI-ATEX**



PRD N. 0188  
Membro degli Accordi di Mutuo  
Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC  
Mutual Recognition Agreements

ATEX EN 021-1-1

**NOTIFICATION**



## [1] PRODUCTION QUALITY ASSURANCE NOTIFICATION

[2] Equipment or Protective System or Component intended for use  
in potentially explosive atmospheres  
Directive 94/9/EC

[3] Notification number:

**CESI 06 ATEX 031 Q**

[4] Equipment or component type: Transmitters and level switches  
Capacitive sensors for continuous liquid level measurement  
and discriminative function for different  
Terminal boxes  
Magnetostrictive level sensors  
Galvanically isolated barriers  
Protection concepts: Flameproof enclosures "d"  
Intrinsic safety "i"  
Encapsulation "m"  
Dust ignition protection "tD"  
Mechanical protection by constructional safety "c"  
Dust ignition protection "t"  
Pressurization "p"

[5] Applicant: START Italiana S.r.l.  
via Pola, 6  
20813 Bovisio Masciago - MB

[6] Manufacturer: START Italiana S.r.l.  
via Pola, 6  
20813 Bovisio Masciago - MB

[7] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, notifies to the applicant that the actual manufacturer has a production quality system which complies to Annex IV of the Directive.

[8] This notification is based on audit report n. EX-B5006989 issued the 9/03/2015.

This notification can be withdrawn if the manufacturer no longer satisfies the requirement of Annex IV.

**Results of periodical re-assessment of the quality system are a part of this notification.**

[9] This notification is **valid until 17/03/2018** and can be withdrawn if the Manufacturer does not satisfy the production quality assurance re-assessment.

[10] According to Article 10 [1] of the Directive 94/9/EC the CE marking shall be followed by the identification n. 0722 identifying the notified body involved in the production control stage.

This notification may only be reproduced in its entirety and without any change.

**Date of 1<sup>st</sup> issue**  
**17th March 2006**

**Date of renewal**  
**17th March 2015**

Translation issued 17th March 2015

Prepared  
Sergio G. Giugno

Verified  
Mirko Balaž

Approved  
Roberto Piccin

Page 1/1

**CESI** S.p.A.  
Testing & Certification Division

Prot. B5006995

P: 1

Rin: 3





START ITALIANA S.r.l.  
Via Pola, 6  
20813 Bovisio Masciago (MB)  
Tel: +39 0362 – 15.81.465  
Fax: +39 0362 – 15.81.464