SV SISTEMI DI SICUREZZA

ITALIA

EXFIRE360

CANBUS – TECHNICAL SPECIFICATION

DATASHEET

REVISION 04 DTD. 26/01/2012

TS-0005-EN-REV04

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REVISION INDEX

Revision index	Description	Date
Revision 01	Preliminary	17/01/2010
Revision 02	Revised for certification scope	08/03/2010
Revision 03	Revised for certification scope	20/10/2010
Revision 04	Revised for certification scope	26/01/2012

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1 GENERAL INFORMATION

1.1 CODES AND STANDARDS

Design of hardware and software have been developed according to the following reference standards.

Construction Products Directive (CPD) – Directive 89/106/EEC
"Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products."

EN 54-2:1997 + A1:2006
"Fire detection and fire alarm systems - Part 2: Control and indicating equipment"

EN 54-4:1997 + A1:2002 + A2_2006
"Fire detection and fire alarm systems - Part 4: Power supply equipment)"

EN 12094-1:2003
"Fixed firefighting systems - Components for gas extinguishing systems - Part 1: Requirements and test methods for electrical automatic control and delay devices (only for EX6EV-C card)"

1.2 DESIGN REQUIREMENTS

Mechanical requirements

Environmental classification	Class A -5° +40° C.
Enclosure type	19" rack-mounted units, 40U cabinet with IP30 protection degree.

Components of the extinguishing modules were selected on the basis of the performance required and are suitable to operate when the ambient conditions on the external surface of the cabinet are of 3K5 class as per EN 60721-3-3.

Manual controls

Manual controls are identified for their specific purpose. Master display is equipped with a graphical symbol to provide access to the menu. By pressing "menu" key, the operator will read the electrical parameters of each channel as well as the diagnostics of the modules.

Visible indications

Alarm, fault and other supervisory or monitoring indications are visible on the Master display, light emitting indicators adjacent to the display and on ModLcd displays installed on each module.
Touch-screen operations on Master display give access to the panel functions (at access levels 1/2/3).
Visible indications are clearly identified at access level 1 for their specific function.

Distinct light indications

Mandatory visible indications could be fully tested through "Test LED" function available at level 1 or 2.
Visible indications are clearly identified at access level 1 for their specific function.

Indications shown on alphanumeric displays

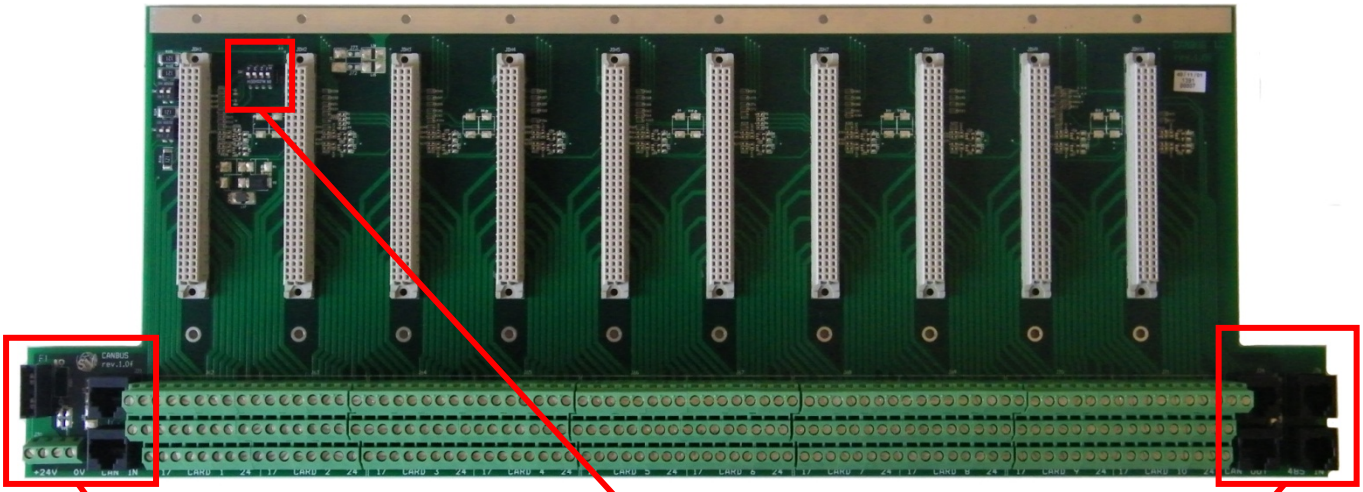
EXFIRE360 panel is designed with an alphanumeric display, which shows system information, and a set of light emitting indicators that provide the following conditions: "Power", "Alarm", "Fault", "Isolate", "Test", "Supervisory", "Output activated", etc.
The same conditions are repeated on the module's Lcd displays.

2 APPLICATIONS

CANBus card is used to connect EXFIRE's I/O modules and transmits signals from/to the CPUs. CAN Bus dual redundant network establishes the communication between CANBus card and BUSCPU card, which, in turn, connects EXCPU360 units.
CAN Bus (redundant) communication interface permits the remote installation of CANBus card (and, therefore, of I/O modules) up to 1 km from the CPUs. CAN Bus over fiber optics could further extend this distance up to 5 km.

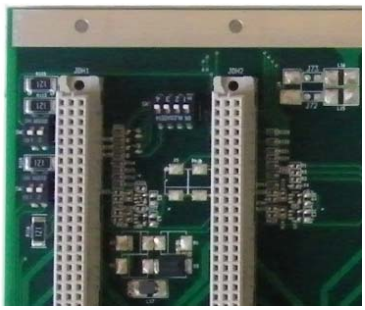
CANBus card is mounted on the backplane of a subrack and consists of ten female connectors for I/O modules. Four power supply terminals are provided (two positive and two negative) with 20 A overcurrent protection fuses. RJ45 ports are used for CAN Bus communication, while a RS485 connection is available for connecting remote displays.

Binary address of CANBus card is set by means of four dip switches located on top left-hand side of the card.

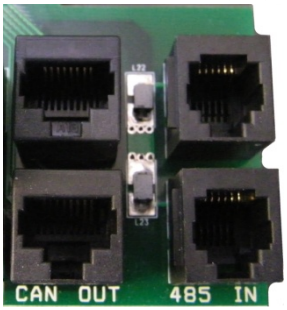


CAN Bus communication inputs + 24Vdc power supply

Dip Switch bank for card addressing



CAN Bus communication outputs + RS485 port to remote displays



3 TECHNICAL SPECIFICATION

CANBus card consists of the following main components:

Component	n.
Terminals (for 1.5 mm^2 wires)	240
20 A fuses	2
Terminals for 24 Vdc power supply (max wire cross section: 1.5 mm^2	4
RJ45 input ports for CAN Bus communication	2
RJ45 output ports for CAN Bus communication	2
RJ11 ports for serial in/out RS485 connection of remote displays	2

4 MAINTENANCE

To replace or disconnect CANBus card, power off the panel first, then disconnect communication links and, eventually, the wires connected to the terminal boards.
Once replaced, reconnect the circuits and power on the system.