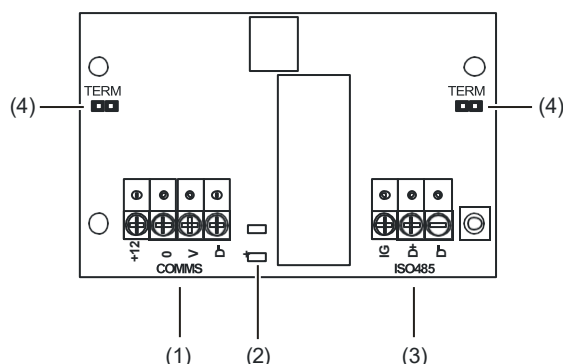


TS0893 LAN Isolation Interface Installation Sheet

Figure 1: TS0893 printed circuit board (PCB) details



- (1) Power and Challenger RS-485 LAN terminals
- (2) Receive and transmit LEDs
- (3) Isolated RS-485 LAN terminals
- (4) RS-485 LAN termination links for each LAN segment

Description

The TS0893 LAN Isolation Interface can be used as an isolator and/or repeater for Challenger LAN devices.

If the RS-485 LAN extends to more than one building, each building must have its own earth system. LAN isolation devices, such as the TS0893 module, are used to isolate the LAN between buildings to protect the system against differences in earth potential.

TS0893 modules can also be used as repeaters to extend the length of the Challenger LAN cabling beyond the standard 1,500 m. Up to three TS0893 modules can be used in series to provide 6,000 m (each module adds 1,500 m cabling distance).

The TS0893 has a standard Tecom 'B' board footprint, and may be mounted in existing Tecom metalwork.

Product contents

Quantity	Item
1	TS0893 LAN Isolation Interface
2	2-way plug-on screw terminal
1	3-way plug-on screw terminal
5	M3x10 pan-head Phillips screw
4	PCB support stand off
1	Ring terminal
1	Installation Sheet

Inspect the package and contents for visible damage. If any components are damaged or missing, do not use the unit; contact the supplier immediately. If you need to return the unit, you must ship it in the original box.

Installation

When installing a Challenger panel, or any other parts of the system, you need to be aware of requirements for cabling and earthing, and plan accordingly.

Refer to the *Challenger V8 & V9 Installation and Quick Programming Manual*, REV 7.0 (or later) for our latest recommendations.

NOTICE! A qualified service person, complying with all applicable codes, should perform all required hardware installation.

Power supply and RS-485 LAN

We recommend that you use 2-pair twisted shielded data cable (such as Belden 8723) for the RS-485 LAN.

The functions of the power and comms terminals (Figure 1 above, item 1) are listed below.

+12	+12 VDC supply (LAN + or external power supply)
0V	–12 VDC supply (LAN 0V and external power supply)
D+	Positive data connection of the RS-485 LAN
D–	Negative data connection of the RS-485 LAN

The functions of the isolated RS-485 LAN terminals (Figure 1 above, item 3) are listed below.

IG	Isolated ground (if required)
D+	Isolated positive data connection of the RS-485 LAN
D–	Isolated negative data connection of the RS-485 LAN

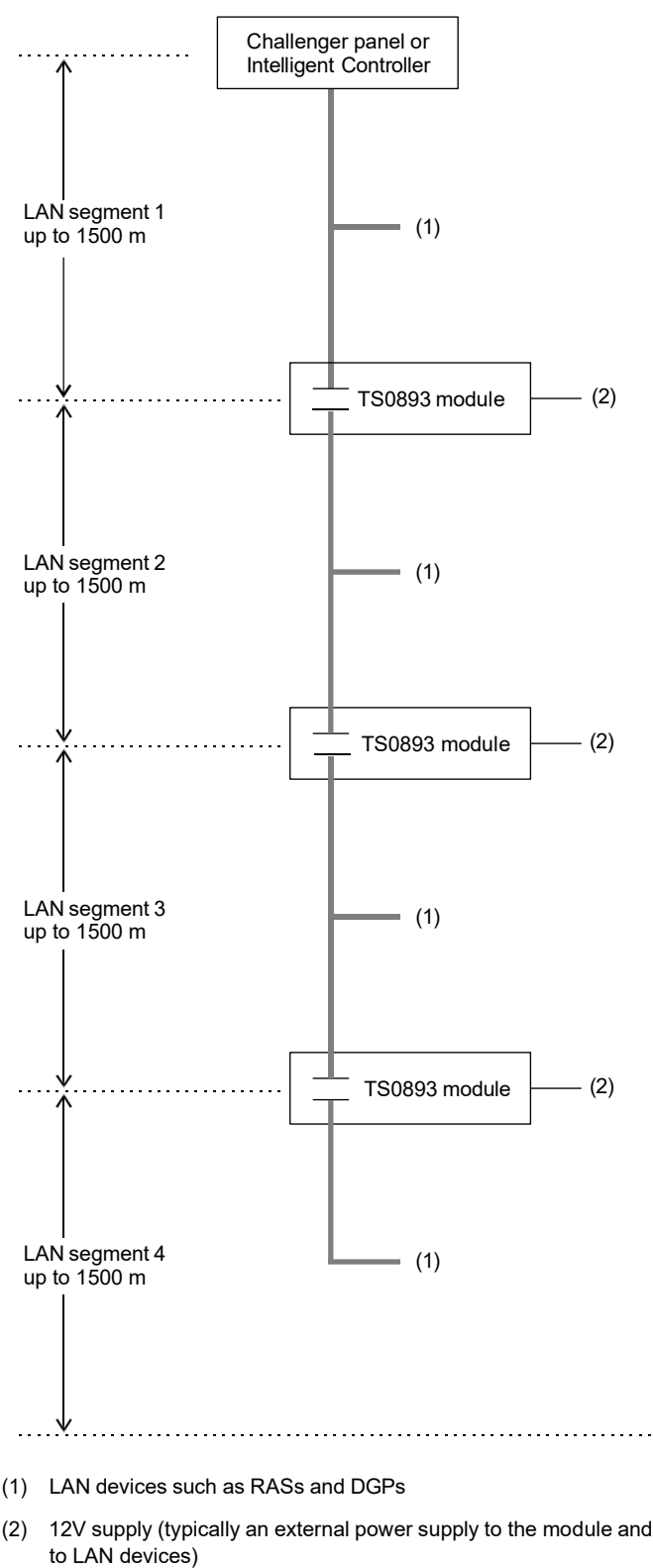
RS-485 LAN termination

If required, place a jumper over the RS-485 LAN termination pins for each LAN segment (see Figure 1 above, item 4).

If the TS0893 is the last device on the RS-485 LAN, the LAN termination should be ON. In a star wiring configuration, the RS-485 LAN may consist of a number of cable runs (branches). LAN termination should be set to ON only at the devices at the far ends of the two longest branches.

Applications

Figure 2: Sample TS0893 application



LED indications

When connected and powered, LEDs (Figure 1 on page 1, item 2) indicate data traffic on the non-isolated portion of the LAN:


- RX** — The yellow LED indicates data received.
- TX** — The red LED indicates data transmitted.

Specifications

Voltage	10.5 to 13.8 VDC
Max. operating current	90 mA @ 13.5 V
PCB dimensions	Tecom 'B' size
Electrical isolation barrier	1500 VRMS optical isolation
Max. number of modules in series	3
Operating environment	
Operating temperature	0 to 70°C
Relative humidity	0 to 95% noncondensing

Note: Units should only be used in a clean environment and not in humid air.

Regulatory information

Manufacturer	KGS Fire and Security Australia Pty Ltd Suite 4.01, 2 Ferntree Place, Notting Hill VIC, 3168, Australia
Year of manufacture	The first two digits of the product serial number (located on the product identification label) are the year of manufacture.
Compliance	 N4131

Notice! This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Disclaimer

The customer is responsible for testing and determining the suitability of this product for specific applications. In no event is Aritech (a division of KGS Fire and Security Australia Pty Ltd) responsible or liable for any damages incurred by the buyer or any third party arising from its use, or their inability to use the product.

Contact information

For contact information, see www.aritech.com.au