

# TS08-series LAN devices

Power distribution and LAN interface boards

## Overview

TS08-series LAN devices provide solutions for typical cabling issues facing installers.

Additional terminals for RS-485 LAN and/or power connections

Use TS0844 Power Distribution Boards for a tidy way to connect cables to the Challenger panel or Intelligent Access Controller.

There are two operating modes. In data mode you have five sets of terminals for RS-485 LAN and power (typically used for 'star' LAN configurations). In power mode you have ten sets of power-only terminals. The TS0844 helps keep wires in place and easily traceable back to their source.

The TS0844 has a Tecom 'B' board footprint for mounting in existing Tecom enclosures.

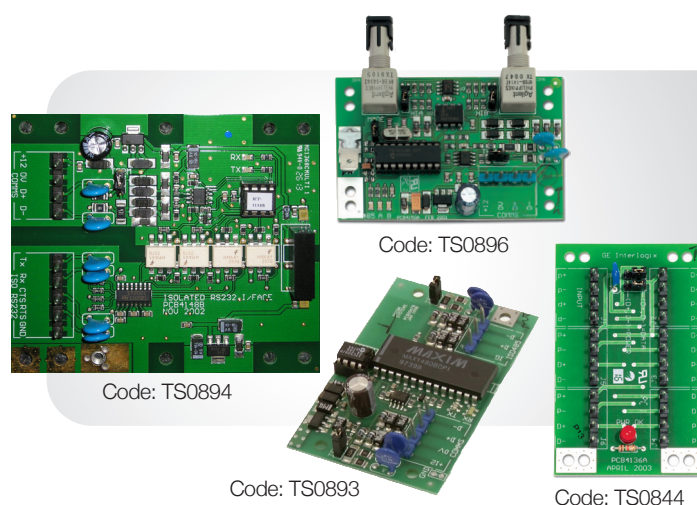
Isolate or extend the RS-485 LAN

If the RS-485 LAN extends to more than one building, each building must have its own earth system. LAN isolation devices, such as TS0893 LAN Isolation Interfaces, 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.

The TS0893 has a Tecom 'B' board footprint for mounting in existing Tecom enclosures.

Connect a Challenger panel to LAN devices or management software computers over an extended distance or via modem.



Use TS0894 Isolated RS-232 to RS-485 Interfaces to convert data from Challenger panels between RS-232 and RS-485 levels for use with leased line modems and/or for distant or multi-drop control panels.

For example, a Challenger panel's RS-232 output (may require a suitable interface module) can be converted to RS-485 for long-distance transmission. A second TS0894 module within 1.5 km cabling distance is used to convert the signal back to RS-232 for connection to a computer.

Alternatively, a Challenger panel's RS-485 LAN can be converted to RS-232 for connection via modem and PSTN or leased telephone lines. A second modem and TS0894 module is used to convert the signal back to RS-485 for connection to a remote DGP (also providing electrical isolation).

The TS0894 has a Tecom 'B+' board footprint for mounting in existing Tecom enclosures.

Carry Challenger LAN data over optical fibre infrastructure

Use TS0896 RS-485 LAN to Optical Fibre Interfaces to provide either single or dual optical fibre connections to remote LAN devices. For fault diagnosis, the board has LEDs to indicate the status of the RS-485, Port A, and Port B connections. TS0896 modules also provide electrical isolation between components on a Challenger LAN.

The TS0896 has a Tecom 'B' board footprint, and can be mounted in its enclosure (supplied) or in existing Tecom enclosures.

Tip: If you need to carry Challenger LAN data over Ethernet infrastructure, refer to the TS0098 Challenger IP LAN Adaptor data sheet.

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## Power distribution and LAN interface boards

National Sales Enquiries  
Level 4.01, 2 Ferntree Place  
Notting Hill, Victoria 3168  
Phone: 1300 361 479  
Outside Australia: +61 401 777 572  
www.aritech.com.au

## Specifications

### TS0844 Power Distribution Board

|                       |                                          |
|-----------------------|------------------------------------------|
| Supply voltage        | 9 to 14 VDC                              |
| Dimensions            | 50 mm x 79 mm                            |
| Data mode             | Five sets of terminals for LAN and power |
| Power mode            | Ten sets of terminals for power only     |
| Operating temperature | 0 to 70°C                                |

### TS0893 LAN Isolation Interface

|                              |                             |
|------------------------------|-----------------------------|
| Supply voltage               | 9 to 14 VDC                 |
| Operating current            | 90 mA                       |
| Electrical isolation barrier | 1500 VRMS optical isolation |
| Maximum distance from panel  | 1.5km                       |
| Dimensions                   | 89 mm x 79 mm               |
| Operating temperature        | 0 to 70°C                   |

### TS0894 Isolated RS-232 to RS-485 Interface

|                             |                  |
|-----------------------------|------------------|
| Supply voltage              | 10.5 to 13.8 VDC |
| Operating current           | 100 mA           |
| Maximum distance from panel | 1.5 km           |
| Dimensions                  | 89 mm x 79 mm    |
| Operating temperature       | 0 to 50°C        |

### TS0896 RS-485 LAN to Optical Fibre Interface

|                             |                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------|
| Supply voltage              | 10.5 to 13.8 VDC                                                                                   |
| Operating current           | 60 mA                                                                                              |
| Maximum distance from panel | 1.5 km over RS-485                                                                                 |
| Dimensions                  | 89 mm x 79 mm                                                                                      |
| Operating temperature       | 0 to 50°C                                                                                          |
| Fibre size                  | 62.5 / 125 µm<br>Compatible with 50/125 µm, 100/140 µm, and 200 µm Plastic-Clad Silica (PCS) Fibre |
| Wavelength                  | 850 nm                                                                                             |
| Distance                    | 1.5 km                                                                                             |

## Ordering information

|        |                                       |
|--------|---------------------------------------|
| TS0844 | Power Distribution Board              |
| TS0893 | LAN Isolation Interface               |
| TS0894 | Isolated RS-232 to RS-485 Interface   |
| TS0896 | RS-485 LAN to Optical Fibre Interface |