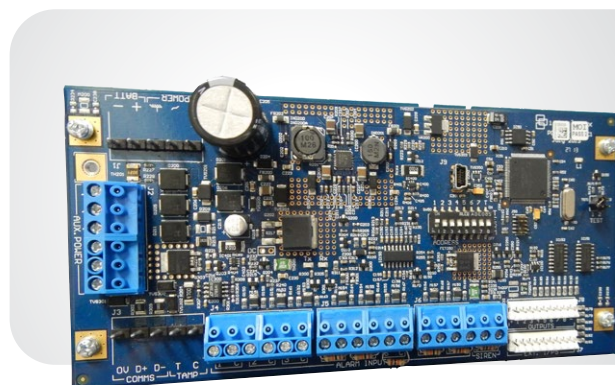


Analogue Data Gathering Panel (DGP)



Overview

TS1020 Analogue Data Gathering Panels (DGPs) are used to expand the number of inputs and outputs (or relays) on the Challenger system. It brings brand-new features to Challenger10 systems, and is backwards compatible with Challenger V8 systems.

The Challenger system uses end-of-line (EOL) resistors on input circuits to monitor the condition of alarm input devices. In a Challenger V8 system, only one value of EOL resistor could be used. When used on a Challenger10 panel, a TS1020 DGP can be used with a variety of EOL resistor values. This flexibility can greatly reduce the cost of upgrading an existing intrusion-detection system to a Challenger10 system. Also, the TS1020 DGP can measure and display (on an LCD keypad) the resistance values of its input circuits to assist in fault finding or commissioning a site. The TS1020 has eight inputs and can be expanded via additional Eight-Input Expansion Modules, models TS0021 or TS1021. Some EOL resistance values are not supported by TS0021. Please see the Eight-Input Expansion Module datasheet for further information.

The TS1020 DGP has an "input reset timer" to hold onto an input's sealed condition for a programmable time up to 15 seconds. This is useful in large sites where a large amount of PIRs continuously send through sealed/unsealed conditions and flood the Challenger LAN. If set at 15 seconds the input would have to remain sealed for 15 seconds before the sealed condition is sent through to the control panel.

Power efficiency and protection is a key feature with the onboard management system. This ensures that your battery is charged at a constant level and also prevents damage from inrush current. Superior protection against short circuits or overvoltage is also a key feature with the intelligent power supply shutting down only affected circuits whilst keeping all other circuits running. With its modern power supply design, the DGP's voltage and current usage can be checked via a LCD keypad. It also has robust short-circuit protection and PTC fuses.

The DGP's firmware can be upgraded locally through the USB connector, or remotely via Interlogix management software when connected to a Challenger10 LAN.

The TS1020 DGP has eight inputs and a siren output onboard, and can be expanded to 32 inputs and 16 outputs via additional expansion modules. The onboard siren output can also be used as a 12 V DC output, if required.

Features

- A wide range of end-of-line (EOL) resistor values
- The resistance values of inputs connected to the TS1020 can be displayed via LCD keypad
- Siren output can be used as a general purpose output
- Input reset timer
- Intelligent onboard power supply allows the DGP's power usage and battery charging to be checked via LCD keypad

Important note: As of firmware revision 5170 the TS1020 will support both versions of the Eight-Input Expansion Module. As the TS0021 has limited support for variable EOL values, Aritech recommends using a TS1021 Eight-Input expansion module on a TS1020 Analogue DGP.

Analogue Data Gathering Panel (DGP)

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Specifications

Power supply	AC
Current consumption (Add 10 mA for each expander fitted)	50 mA
Voltage	16.8 VAC
Aux power out	1000 mA @ 13.8 VDC
Inputs	8 to 32
Siren output	1
Maximum outputs	16
Maximum number per panel	15 for Challenger V8 31 for Challenger10
Dynamic battery testing	Yes
Various end-of-line resistor values	Yes
Max. distance from panel (may be extended with LAN isolation interfaces)	1,500 m
Data bus monitoring	Yes
PCB size	85 mm x 176.5 mm (Tecom size 'A')
Enclosure	TS0307
Environmental	
Operating temperature	0 – 50° C
Humidity	0 to 95% noncondensing
Regulatory	ACMA C-Tick for Australia and New Zealand

Ordering information

TS1020	Analogue DGP (Data Gathering Panel), with enclosure
TS1020B	Analogue DGP (Data Gathering Panel), board only
TS0307	Enclosure

Visit <https://aritech.com.au/document-category/software/> for the latest firmware and software downloads.