

The **TC^{ALERT}[™]** series is designed to meet the need for detailed, accurate and relevant information to be provided so that the behavior of signalling track circuits can be monitored, specifically the operating current drawn by the track relay itself.

It has been specified functionally by signalling engineers and developed by experts to be the ideal solution for monitoring and reporting the condition of track circuits. The robust design incorporates modern industry standard architecture, numerous communication protocols and a host of features making it easy to install, operate and interrogate.

The design of **TC^{ALERT}[™]** means that all of the required equipment is integrated into a single unit which fits into the space of two BR930 specification relays. Where the unit is to be wall mounted then a different mounting plate can be supplied which will allow the unit to be bolted straight to a wall.

Key Features

Connectivity

TC^{ALERT}[™] is designed to be quickly and easily installed, monitoring up to eight track circuits from a single unit. The only connections required are to the 4-20mA current clamps which are fitted to the track circuit relay coil circuitry. If it is required to monitor the track relay (or repeat) then this can be done by wiring from **TC^{ALERT}[™]** to the spare contacts of the monitored relays.

Power Supply

TC^{ALERT}[™] will operate from either a 240v or 110v AC supply. Temporary power loss is no problem for **TC^{ALERT}[™]** because of its internal UPS that is designed to last for at least six hours, depending on the battery size fitted and the number of channels used.

Local Access

TC^{ALERT}[™] employs a number of indication LED's which can be used to inform the user that the unit is currently operational and the status of the digital inputs. It is also possible to connect a laptop / PDA to **TC^{ALERT}[™]** using built-in RS232, USB or Ethernet ports. This allows local access to the recorded data to assist with on site installation and subsequent investigations.

Remote Access

TC^{ALERT}[™] can be connected directly to a network via its TCP/IP Ethernet port, enabling data transfer at up to 10Mbps. It can also incorporate either a built in PSTN or GSM modem for remote data access.

Specification

Maximum point ends monitored	8 (Using method described in "Train Detection System - Track Circuits Specification")
General	
Dimensions (mm)	110 x 135 x 196 (Two adjacent BR930 spec. relay positions)
Weight (kg)	2.13
Power Supply	
Power supply range	110v / 230v AC
Power supply isolation	1kV
Power consumption	12W
Internal UPS	6 hours (Depends upon usage and number of active channels)
Analogue Inputs	
Analogue inputs per unit	4
Analogue input isolation	1kV
Analogue input type	4-20mA
Analogue resolution	10bit
Maximum sampling rate	1500Hz
Current Clamps (where supplied)	
Current clamp type	Through hole
Current clamp supply	Isolated 24v
Current clamp range	0 - 600mA
Current clamp output	4 - 20mA
Digital Inputs	
Digital inputs per unit	8
Digital input isolation	1kV
Digital input type	Volt free relay contacts
Data Storage	
Internal data storage	1Gb (As standard)
External data storage	1Gb (Removable Compact Flash card)
Communications	
Serial	Isolated RS485
Modem	PSTN or GSM
Networking	10 baseT



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