



Acquisition • Measurement • Control



The Tracker 300 Series
Signal Conditioners
Data Acquisition
PID Control
Alarm Trip

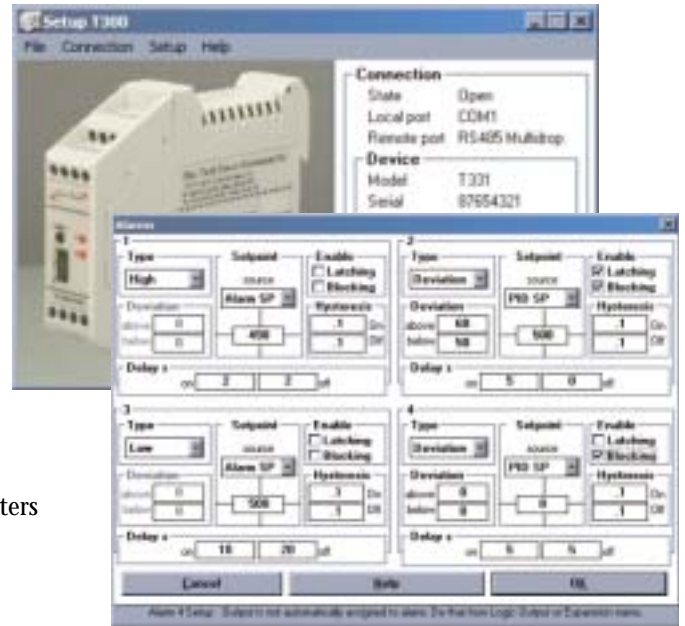
TRACKER 300

The Tracker 300 series

The Tracker 300 series is a low cost Signal Conditioner, Trip Amplifier and PID Controller, for use in a variety of process applications. Its small size enables high packing density on standard TS35 DIN rail. A built in power supply, transmitter excitation and serial RS485 interface provides genuine single loop integrity with distributed data acquisition and control.

FEATURES

- Universal 20 bit input provides accurate measurement of a wide range of sensors
- Real time data available via the isolated RS485 serial interface
- Fully configurable by PC software – no internal links or potentiometers



Signal Conditioning

The isolation provided in the Tracker 300 series eliminates earth loops, which can cause noisy, inaccurate measurements. Any Tracker 320 or 330 module can be fitted with an isolated analogue output for signal re-transmission.



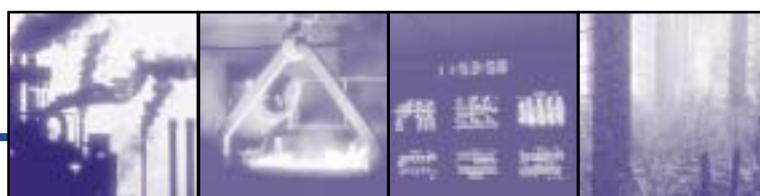
- Accurate analogue re-transmission of 1 part in 32,000 (15bit) 4-20mA, 0-20mA or 0-10VDC output.
- Linearisation of thermocouple and RTD sensors, so the output is linear to temperature
- User configurable linearisation for applications such as tank contents measurements.



Distributed Data Acquisition

Often the largest expense of a data acquisition system is the wiring. The Tracker 300 uses a simple two-wire communications link greatly reducing wiring costs and simplifying installation.

- Will power a two-wire transmitter (24VDC) or a strain gauge device (10VDC)
- Enables wiring runs of up to 1.2 km on RS485 interface, allows distribution to a single channel
- MODBUS RTU communications protocol allows easy integration with industry standard software



THE DEFINITIVE SOLUTION

PID Control

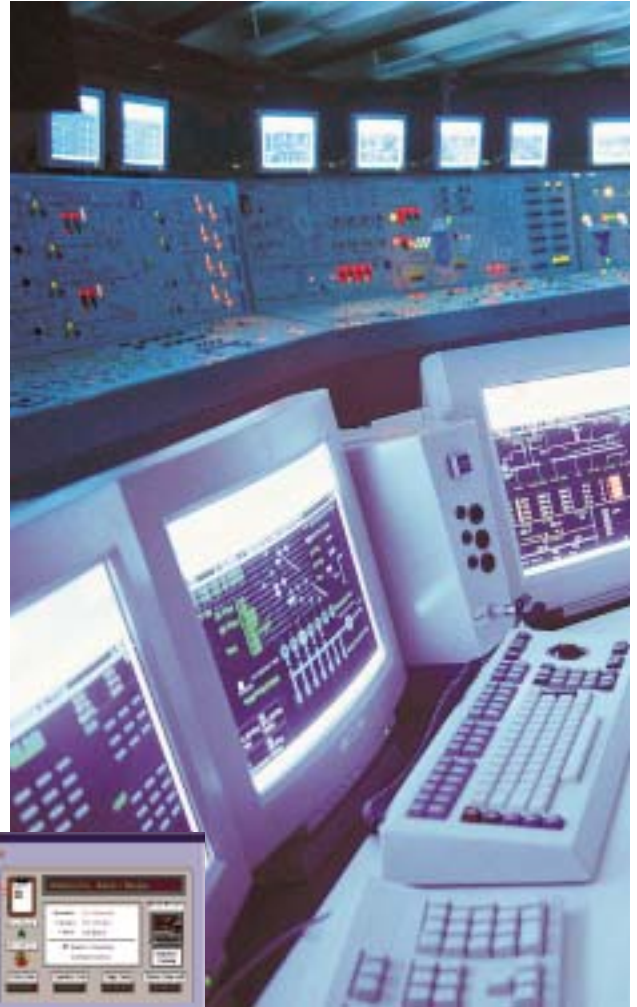
The Tracker 331 & 332 models are fully featured auto tuning PID controllers providing genuine single loop integrity to plant control systems.

- Auto-tune for automatic setting of the PID values; reverse or direct acting
- "Self defence" feature ensures safe operation of the process should there be a loss of communication for longer than a pre-set period
- Can use pulse width modulated SSR / relay logic or analogue outputs

Condition Monitoring

Plant shut downs can be time consuming and expensive. The Tracker 300 series allows the user to plan more effective maintenance by monitoring thermocouple ageing and the health of electrical loads.

- Alarms when thermocouple shows signs of deterioration
- Checks for partial electrical load failure, overloads and open loads (PWM control only)
- Indicates which components should be replaced during scheduled maintenance



Flexible Alarm Trips

The Tracker 300 series can be used as a trip amplifier by using the dual relays on the Tracker 331 or by adding a Tracker 340 Logic Expansion Module to any module in the series.

- The use of on and off delay timers and hysteresis functions stops nuisance or "fleeting" alarms
- An alarm can operate more than one output, allowing different circuit voltages to be switched
- Alarm actions can be high, low or deviation; latching or non-latching; standard or fail safe operation
- Alarm Blocking feature for startup conditions

Logic Expansion

The Tracker 340 Logic Expansion Module provides additional logic inputs and outputs for monitoring and control applications. All logic states can be read via the communications interface. Logic inputs can also be configured to perform a number of functions i.e. zero, tare, reset max/min.

- Four C/O relay or TTL outputs and two logic inputs
- Six front panel LED's indicate the input and output states
- Plugs into and is powered by a Tracker 320 or 330



