

TSC Transtech Signal Conditioners



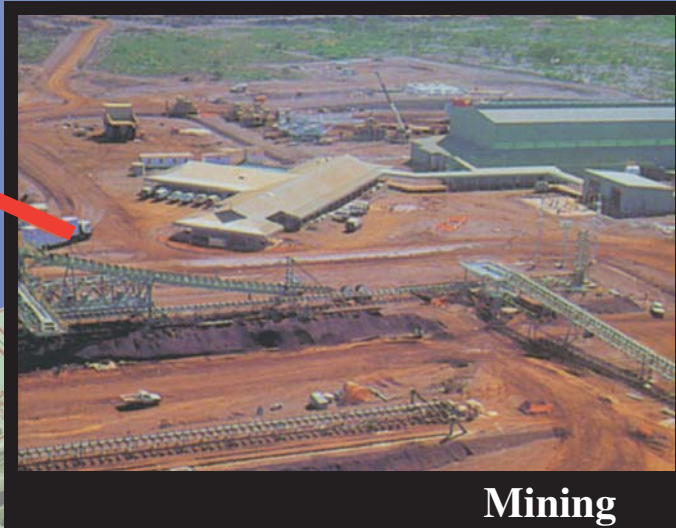
AUSTRALIAN DESIGNED
AND MANUFACTURED



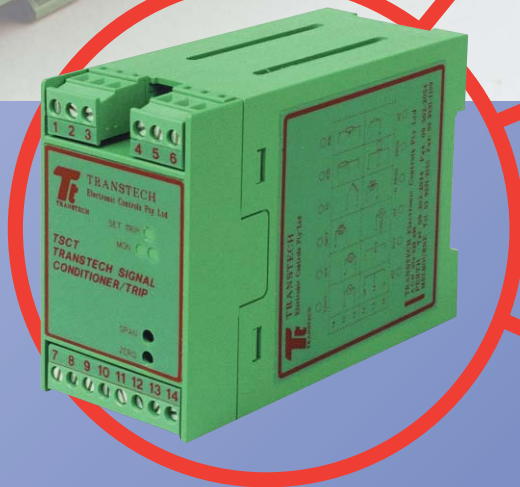
Industrial



Process



Mining













- Galvanic Isolation as Standard
- Full Input Range
- Field Adjustable
- 0.1% Accuracy
- Dual Rail Mounting



TRANSTECH

Dec 2005

INPUTS	NON ISOLATED		ISOLATED			TRIPS
	2-WIRE DEVICES		2-WIRE LOOP POWERED (12-45Vdc)	4-WIRE 24Vdc, 24Vac, 120Vac, 240Vac		4-WIRE
	OUTPUT		OUTPUTS			
	4-20mA (Loop Powered)	Other	4-20mA (1-5Vdc on request)	0-10Vdc Plus customer output	0-10Vdc Single Trip Plus customer output	Dual Trip
AC CURRENT 			LPSC-ACI 0-1 & 0-5Amp	TSC-ACI 0-1 & 0-5Amp	TCT-ACT 0-1 & 0-5Amp	
AC VOLTAGE 			LPSC-ACV 0-600Vac 50V Min Span	TSC-ACV 0-600Vac 1V Min Span	TCT-ACT 0-600Vac 1V Min Span	
FREQ/PULSE 				TSC-HZ 0-10KHz 30Hz Min Span	TSCT-HZ 0-10KHz 30Hz Min Span	
RTD (Linearised) 	LPNI-RTD (Selectable) HMPT		LPSC-RTD 0-600°C 40°C Min Span	TSC-RTD 0-850°C 30°C Min Span	TSCT-RTD 0-850°C 30°C Min Span	
SLIDE WIRE 			LPSC-SW 0-100KOhm 100 Ohm Min Span	TSC-SW 0-100KOhm 100 Ohm Min Span	TSCT-SW 0-100KOhm 100 Ohm Min Span	
THERMOCOUPLE "TCL" = Linearised 	HMTC		LPSC-TC (TCL) 0-1600°C 8mV Min Span	TSC-TC (TCL) 0-1600°C 8mV Min Span	TSCT-TC (TCL) 0-1600°C 8mV Min Span	
TX DRIVER 				PSC-TX 24Vdc (Selectable I/O)	-	
DC MILLIAMPS 	HMVC		LPSC-VC 0-50mA 1mA Min Span	TSC-VC 0-50mA 1mA Min Span	TSCT-VC 0-50mA 1mA Min Span	PTD-VC 24Vdc Selectable Trips
DC mV/VOLTS 	HMVC		LPSC-VC 0-300Vdc 5mV Min Span	TSC-VC 0-300Vdc 1mV Min Span	TSCT-VC 0-300Vdc 1mV Min Span	PTD-VC 24Vdc Selectable Trips
ISOLATORS 			LRS/LRD (Loop Repeaters) 4-20mA/4-20mA			PTD-WIN 110Vdc (mA Window)

LOOP POWERED SIGNAL CONDITIONERS



PANEL MOUNTED STYLE

The **LPSC** series of modules draw their energy to operate from the 4-20mA loop they are connected to and provide a proportional mA signal relative to the input signal.

FEATURES:

- **Galvanic** Isolation to 2500 Vrms.
- **Compact** Din Rail or G Rail Mounting.
- **External** Monitor Points (40-200mV).
- **External** Span and Zero Adjustments.
- **Linearised** Model TCL.

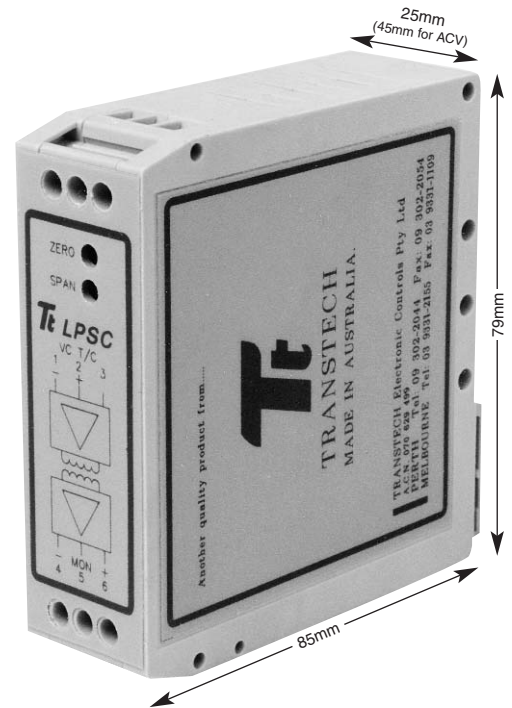
INPUTS:

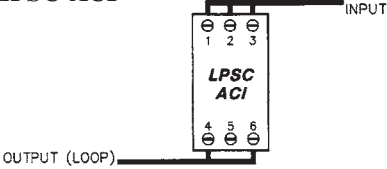
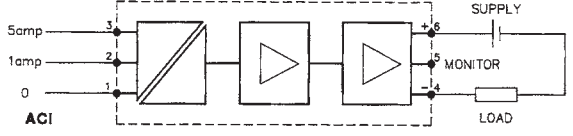
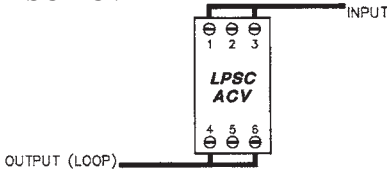
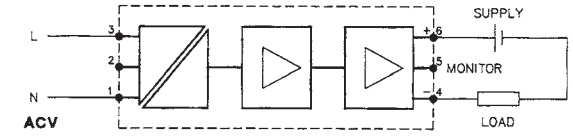
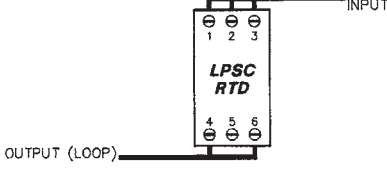
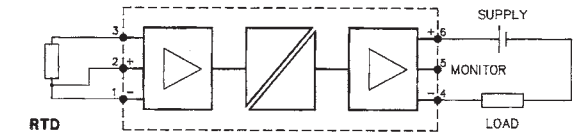
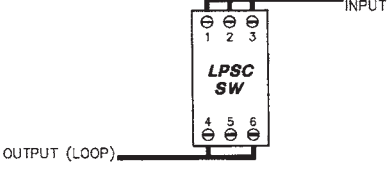
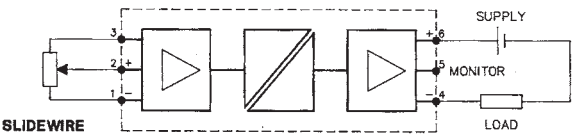
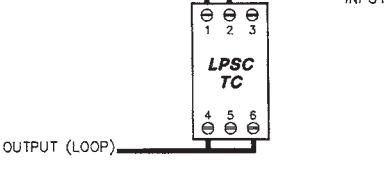
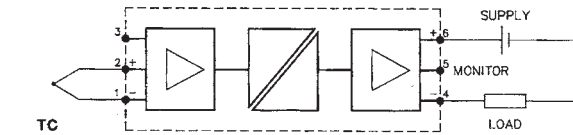
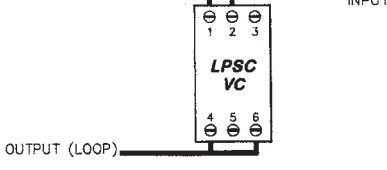
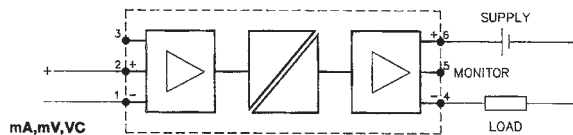
- mA dc
 - mV/Volts dc
 - ACI
 - ACV
 - RTD
 - SW (slidewire)
 - TC (thermocouples)
 - TCL (thermocouple - linearised)
- Special inputs available.*

SPECIFICATIONS:

Mechanical	Electrical
Op Temp : 0° to 60°C	Loop Voltage : 12-45Vdc
Store Temp : -25° to 75°C	Output : 4-20mA (1-5Vdc)
Housing Mat. : KRILEN	Loop Load : 1650 ohms at 45Vdc
Mounting : DIN or G RAIL	Isolation : Galvanic to 2500 Vrms
Weight : Approx. 130 grams	Linearity : 0.1% of span
	Common Mode : 110dB
	Accuracy : 0.1% of span
	Long Term Drift : Within 0.1% per 10,000 hrs
	Response Time : 250uSec (step 10-90%)

All other specifications ask for a datasheet.



TYPICAL RANGE	TERMINAL CONNECTIONS	SCHEMATIC CONNECTIONS
0-1 Amp or 0-5 Amp (Field Selected)	LPSC-ACI 	
0-600 Vac (max) (any range between) (Factory Set)	LPSC-ACV 	
Up to 850°C (max) PT-100 Ni-100 Cu-10 Others available (Factory Set)	LPSC-RTD 	
0-10K Ohms (max) 3 wire potentiometers (any range between) (Factory Set)	LPSC-SW 	
Up to 1600°C (max) E, J, K, N, S, T, R Others available TCL = Linearised output (Factory Set)	LPSC-TC (TCL) 	
Up to 300Vdc (max) Up to 50mA (max) Others available (Factory Set)	LPSC-VC 	

LOOP REPEATERS

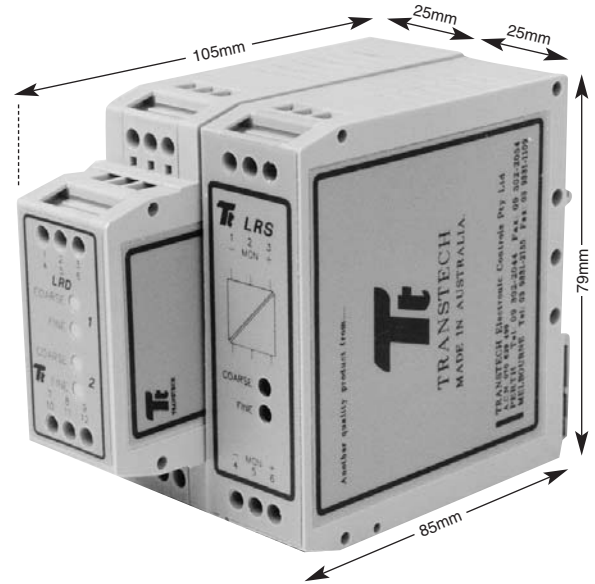


The **LRS** and **LRD** series of modules are commonly termed “Loop Isolators”. They are typically connected into a current loop, in series, and repeat the 4-20mA on their output terminals, thus supplying a 4-20mA or 1-5Vdc signal to another load.

FEATURES:

- **Galvanic** Isolation to 2500 Vrms.
- **Compact** Din Rail or G Rail Mounting.
- **External** Monitor Points (40-200mV).
- **Self Tuning** to connected load (automatic compensation for loop volts and load).
- **EMI/RFI** barrier, the **LRS, LRD** may improve interference from such sources.

INPUTS: **LRS** – 4-20mA (Single)
LRD – 4-20mA (Single or Dual) (may be linked for single input)
OUTPUTS: **LRS** – 4-20mA or 1-5Vdc
LRD – 2 x 4-20mA or 2 x 1-5Vdc or 1 x 4-20mA and 1 x 1-5Vdc



SPECIFICATIONS:

Mechanical	Electrical	
Op Temp : 0° to 60°C	Loop Voltage : Up to 45Vdc	Linearity : 0.1%
Store Temp : -25° to 75°C	Loop Input : 4-20mA	Accuracy: : 0.1%
Housing Mat. : KRILEN	Output : 4-20mA	Long Term Drift : Within 0.1% per 10,000 hrs
Mounting : DIN or G RAIL	(400 Ohm load approx.)	Response Time : 250uSec (step 10-90%)
Weight : Approx. 100 grams	: 1-5Vdc	

All other specifications ask for a datasheet.

POWERED DUAL TRIP UNITS

The **PTD** series of modules have an inbuilt power supply, typically 24Vdc. The **PTD** range accepts standard instrumentation Signal Inputs (mA, Vdc) and provides two (2) fully adjustable and independent relay trips.

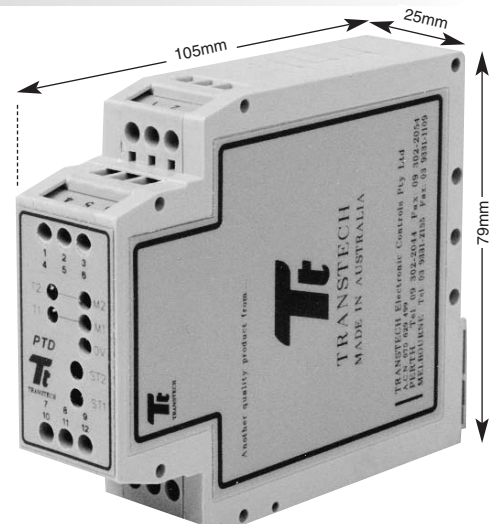
FEATURES:

- **Isolation** Full Galvanic Isolation.
- **Compact** Din Rail or G Rail Mounting.
- **External** Monitor Points (0-10Vdc).
- **External** Trip Settings.
- **Trip Status** LED's.

INPUTS:

- mA & mV
- mA/Amp WINDOW

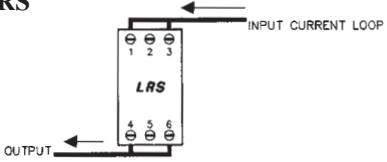
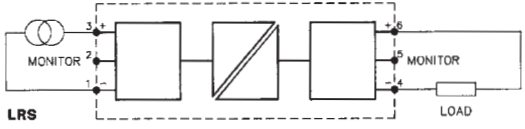
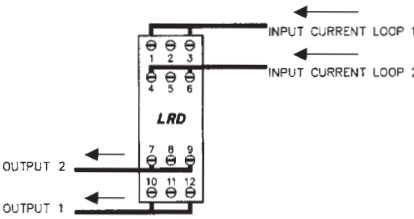
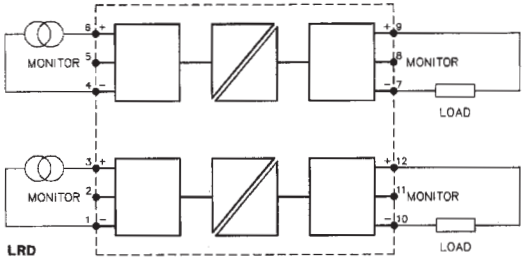
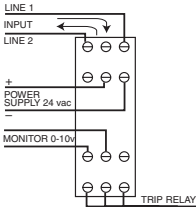
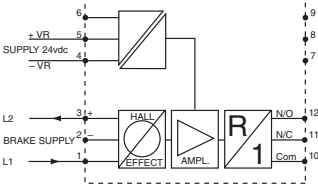
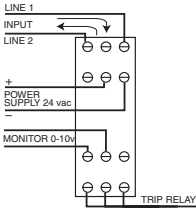
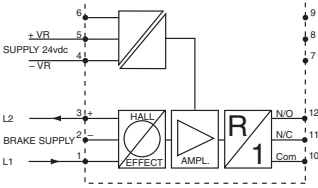
Ask for our Special inputs/outputs (RTD, TC available in future).



SPECIFICATIONS:

Mechanical	Electrical	
Op Temp : 0° to 60°C	Supply Volts : 24Vdc	Accuracy : Typically 0.1% of span
Store Temp : -25° to 75°C	Supply Hz : 45-60HZ	Common Mode : 110dB
Housing Mat. : KRILEN	Supply VA : Approx. 2.0VA	Long Term Drift : Within 0.3% per Deg. C
Mounting : DIN or G RAIL	Isolation : 2 Port Galv. to 2500Vrms	Response Time : 250uSec (step 10-90%)
Weight : Approx. 130 grams	Linearity : Typically 0.1% of span	

All other specifications ask for a datasheet.

TYPICAL RANGE	TERMINAL CONNECTIONS	SCHEMATIC CONNECTIONS
Input 4-20mA	LRS 	
Input 4-20mA Link 3-4 for Single 4-20mA Input and Dual Isolated Output	LRD 	
Up to 50mA Up to 10Vdc (Others available) May be connected in series or parallel for multiple trips. (Factory Set)	PTD 	
Up to 1 Amp Settable "window" for protection of brake motors.	PTD-BRK 24VDC 	

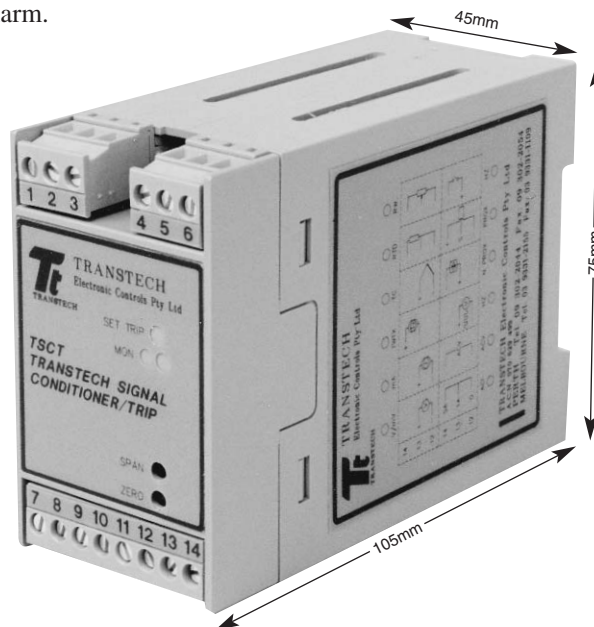
POWERED SIGNAL CONDITIONERS (ALSO WITH SINGLE TRIP)



The **TCS** and **TSCT** series of modules have an inbuilt power supply, typically 24Vdc, 24Vac, 110Vac, 240Vac and can therefore accept zero based input signals and drive high impedance loads. They accept all common instrumentation signal inputs and provide an accurate, **isolated** and proportional output signal of 0-10Vdc **plus** another of the customers choice. The model **TSCT** provides a single trip output that may be set as an alarm.

FEATURES:

- **Isolated** full “3 Port” Galvanic Isolation
- **Compact** Din Rail Mounting.
- **Plug Off** Terminal for Input/Output/PSU
- **In Built** AC Power Supplies
- **External** Span and Zero Adjustments.
- **0-10Vdc** Output on all as standard.
- **Single Trip** Volt Free C/O Contact.
- **Range Selection** DIP Switch Selection of Ranges for VC Types.



INPUTS:

- mA & mV
- ACI (ac current 0-1/0-5A)
- ACV (see voltages)
- HZ (pulses)
- RTD (linearised as standard)
- Slidewire (SW)
- TC all types of thermocouples
- TCL (linearised) all types and thermo couples
- VC (volts dc & rms and current dc)

Ask for special inputs/outputs

SPECIFICATIONS:

Mechanical	Electrical
Op Temp : 0° to 60°C	Supply Volts : 24Vdc, 24Vac, 120 Vac or 240 Vac
Store Temp : -25° to 75°C	Supply Hz : 45-60HZ
Housing Mat. : KRILEN	Supply VA : Approx. 1.6VA
Mounting : DIN	Isolation : 3 Port Galv. to 2500Vrms
Weight : Approx. 130 grams	Linearity : Typically 0.1% of span
	Accuracy: : Typically 0.1% of span
	Long Term Drift : Within 0.1% per 10,000 hrs
	Response Time : 250uSec (step 10-90%)

All other specifications ask for a datasheet.

CONNECTION INFORMATION



TYPICAL RANGE	TERMINAL CONNECTIONS	SCHEMATIC CONNECTIONS
0-1Amp or 0-5Amp (Field Selected)	<p>TSC-ACI TSCT-ACI</p>	<p>TSC-ACI</p>
0-600Vac (Max) any range between (Factory Set)	<p>TSC-ACV TSCT-ACV</p>	<p>TSC-ACV</p>
Up to 10KHz (Max) (any range between) Proximity Encoder Switch (Volt Free) (Field Set)	<p>TSC-HZ TSCT-HZ</p>	<p>TSC-Hz</p>
Up to 850°C (Max) PT-100 PT-200 Ni-100 Cu-10 Others available (Field Set)	<p>TSC-RTD TSCT-RTD (Linearised as standard)</p>	<p>TSC-RTD</p>
0-10K Ohms (Max) 3 wire potentiometers (any range between) (Factory Set)	<p>TSC-SW TSCT-SW</p>	<p>TSC-SW</p>
Up to 1600°C (Max) E, J, K, N, S, T, R Others available TCL = Linearised TC input (Field Set)	<p>TSC-TC TSC-TCL TSCT-TC</p>	<p>TSC-TC</p>
0-10Vdc 0-50mA (selectable) Drive Output (TX) or Active Input (RX) (Sink or Source) (Field Set)	<p>TSC-TX PSC-TX</p>	<p>TSC-TX</p>
Up to 300Vdc (Max) Up to 50mA (Max) Others available (Field Set)	<p>TSC-VC TSCT-VC</p>	<p>TSC-VC</p>

AGENCIES LISTINGS



TRANSTECH is the Australian Distributor for:



– Photoelectrics



– Ultrasonics



– The **CONLOG** Industrial Instrumentation range – Alarm Systems, Data Loggers and Power Supplies



– Counters, Resolvers & Programmable Multiturn Absolute Encoders



– LED's and Matrix Annunciator Panel



– High Temperature Proximity Sensor Range



– Proximity sensor range



– Mosaic Systems, Cable Connector Systems. Control Room Technology

Available from:



Designed & Manufactured by:
TRANSTECH Electronic Controls Pty Ltd
Unit 2/48 Dellamarta Road, Wangara, W.A. 6065 A.C.N. 070 629 499
Tel: (08) 9302 2044 Fax: (08) 9302 2054
Website: www.transtech.com.au
Email: info@transtech.com.au