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TRANSTECH

Transtech Signal Conditioner Range

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SECTIONS

TRANSTECH®

1. MODEL: Loop Powered Transmitters.

Models: LPSC-ACI (1/5A) | LPSC-SW | LPSC –RTD | LPSC-TC | LPSC-mV/VC | LPSC-mA

2. MODEL: Powered Transmitters & Trans. + Trip

Models: TSC--ACI (1/5A) | TSC-HZ | TSC--SW | TSC –RTD | TSC-TC | TSC-mV/V | TSC-mA
TSCT-ACI (1/5A) | TSCT-HZ | TSCT-SW | TSCT-RTD | TSCT-TC | TSCT-mv/V | TSCT-mA

3. MODEL: Powered Transmitters & Trans. Trip

Models: New series TPSC-xxx coming Jan 2017

4. MODEL: Loop Isolator/Repeaters (incl. Powered versions)

Models: LRS | LRD | LS-M | LS-V-M | LRD-M | LRD-V-M

5. MODEL: Trips Units and Brake Models

Models: PTS-VC-12V | PTS-VC-24V | PTS-VC-48V | PTD-VC-12V | PTD-VC-24V
PTD-BRK/FF | PTD-BRK/FS | PTD-BRK/FS 3A

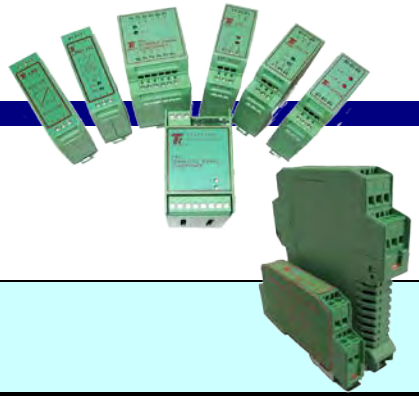
6. MODEL: Battery Chargers / UPS / Diode OR

Models: IPS-BC-140W | IPS-BC-360W | IPS-UPS-100W | II-055

7. MODEL: Special Interface (II) Modules

Models: II-041 | II-056 | II-022 | PAM-01/B | PAM-02

PROCESS AUTOMATION - SIGNAL CONDITIONERS



LPSC | LRS/LRD | PTD | TSC - Analogue Process Controls

Note - below list is not the complete range of available products Transtech manufactures

All Prices Subject to Change without Notice

Revision Ref E 12/12/2016

Process - Industrial - Mining - Commercial - Government - Factories - Research


FIG 1


FIG 2


FIG 3


FIG3A


FIG 4


FIG 5


FIG 6

	MODELS	INPUT TYPE	OUTPUT	SUPPLY VOLTS	MAX TEMP	ALARMS LED's	ALARMS RELAYS	FIGURE No	DIMENSIONS in mm W	H	D	
LOOP POWERED TRANSMITTERS / ISOLATORS												
INPUT AC CURRENT	LPSC-ACI	CT 1A or 5A	4-20mA	N/A	70Deg C	No	No	FIG 1	25	80	85	
INPUT TEMPERATURE OR DCV CURRENT OR VOLTS	LPSC-VC or TC or RTD or SW	V, Deg C, RESIST	4-20mA	N/A	70Deg C	No	No	FIG 1	25	80	85	
****All types of Inputs are avaiable TC, RTD, SW, ACV**												
LOOP ISOLATORS/ LOOP SPLITTERS or REPEATERS												
ISOLATES LOOP A FROM LOOP B	LRS	1 x 4-20mA	1 x 4-20mA	N/A	70Deg C	No	No	FIG 2, 3	25	80	85	
ISOLATES LOOPS A&B FROM LOOPS C&D	LRD	2 x 4-20mA	2 x 4-20mA	N/A	70Deg C	No	No	FIG 2, 3	25	80	105	
4-20mA 1CH/2CH LOOP SPLITTER POWERED	LS-M 24V	1 x 0-50mA	2 x (0)4-20mA	24VAC DC	70Deg C	Yes	No	FIG 3	12.5	100	55	
4-20mA 2CH/2CH LOOP REPEATER POWERED	LRD-M 24V	2 x 0-50mA	2 x (0)4-20mA	24VAC DC	70Deg C	Yes	No	FIG 3A	17.5	100	112	
POWERED ISOLATOR TRANSMITTERS / TRIP MODULES												
POWERED 1 TRIP MODULE FOR mA or V	PTS-24VDC	0-50mA	1 Relay C/O	12VDC, 24VDC	70Deg C	Yes	Yes	FIG 6	25	80	105	
POWERED 2 TRIP MODULE FOR mA or V	PTD-24VDC	0-50mA	2 Relay C/O	12VDC, 24VDC	70Deg C	Yes	Yes	FIG 6	25	80	105	
POWERED SIGNAL TRANSMITTER AC CURRENT & VOLTS	TSC-ACI or ACV	ACI or ACV	0(4)-20mA + 0-10V	120, 240, 24	70Deg C	Yes	No	FIG 4	70	70	105	
POWERED SIGNAL TRANSMITTER for TC or RTD or HZ	TSC-TC or RTD or HZ or SW	TC or RTD or HZ	0(4)-20mA + 0-10V	120, 240, 24	70Deg C	Yes	No	FIG 4	70	70	105	
POWERED SIGNAL TRANSMITTER for TAP Changer INPUT	TSC-TCM 24VDC	TAP Changer	0(4)-20mA + 0-10V	24Vdc or 48Vdc	70Deg C	Yes	No	FIG 5	71	70	105	
POWERED SIGNAL TRANSMITTER for TAP Changer INPUT	TSC-TCM 120/240V	TAP Changer	0(4)-20mA + 0-10V	120/240Vac	70Deg C	Yes	No	FIG 5	72	70	105	
POWERED SIGNAL TRANS. c/- TRIP for TC or RTD or HZ	TSCT-TC or RTD or HZ or SW	TC or RTD or HZ	0(4)-20mA + 0-10V	120, 240, 26	70Deg C	Yes	Yes	FIG 5	70	70	105	
POWERED REPEATER FOR ACTIVE or DRIVE INPUT	PSC-TX 24VDC	0-20mA Active IN or Drive OUT	0(4)-20mA	12, 24, 48VDC	70Deg C	Yes	No	FIG 6	25	80	105	
****All types of Inputs are avaiable TC, RTD, SW, ACV, CC TAP CHANGER**												

Perth and Melbourne

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TRANSTECH

SECTION 1

Transtech Loop Powered Range

TYPICAL MODELS:

LPSC-VC, LPSC-TC, LPSC-RTD

DATA SHEET – Process Automation – Loop TX.

Subject to change without notice

MODEL:- LPSC-xxx

Loop Powered Signal Conditioner series 4-20mA Loop Powered

GENERAL DESCRIPTION

The LPSC-xxx is a series of loop powered two wire transmitters, the LPSC draw energy from the 4-20mA loop to function and at the same time provides a proportional 4-20mA signal relative to the input.

The LPSC series accommodates inputs such as AC voltage, AC Current from CT, millivolts dc, Volts dc, milliamps dc, RTD, T/C and a SW (slide wire) inputs.

FEATURES

- Full galvanic isolation
- Both DIN and G Rail mounting
- External monitor points (40 to 200mV)
- External span and zero
- Very small footprint area 25mm wide

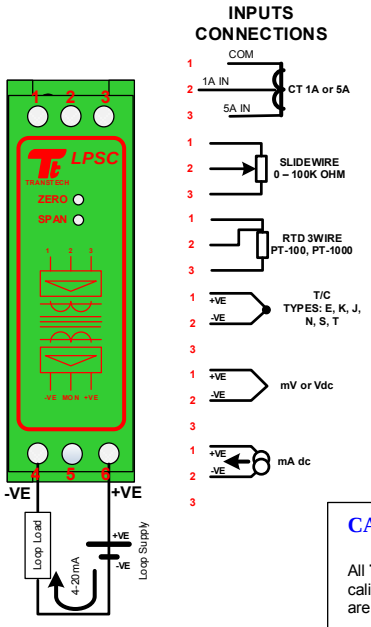
TECHNICAL DATA

Supply Voltage	12Vdc to 48Vdc
Supply Power	Loop powered
Two Port Isolation	1500V nominal
Input Types available:	
ACI	CT secondary either 1Amp or 5Amp
ACV	0-300Vac
RTD	3 Wire PT-10, PT-100, PT-1000 - Min Span 30Deg C
SW (slide wire)	2 & 3 Wire 0-5k Ohm, 0-10k Ohm - Min Span 10 Ohms
T/C	E, J, K, N, S, T Min Span 8mV
VC	0-300V or 0-50mA – Min Span 5mV or 1mA
Output	4 to 20mA only
Loop Resistance	Approx. 250 ohms/loop maximum

GENERAL SPECIFICATION

Supply Voltage	12 to 48Vdc
Loop Resistance	250 ohms
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	1500V dc.
Creepage distance	≥2.5mm. (port to port)
Output Noise	3.2µA rms. (typical).
Accuracy	0.25% of span
Linearity	0.25% of span
Repeatability	0.25% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 250mS 10 to 90% step
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	79mm X 85mm X 25mm
Weight	130 grams
Load Calculation:	The LPSC series work on a wide voltage range, the maximum load can be calculated as below:

$$\text{Load (ohms)} = \frac{V_{supply} - 12}{0.020}$$

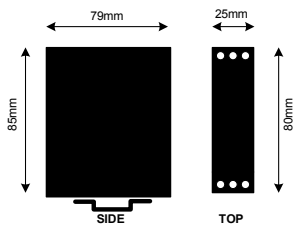


CONNECTIONS

CALIBRATION & SET-UP INSTRUCTIONS:-

All **TransTech** signal conditioners are normally factory set to calibration details supplied by the customer. If field adjustments are necessary the following steps should be taken :-

1. Apply the minimum signal to the input (0 Deg C)
2. Adjust the output signal to its minimum level of 4 mA by adjusting the zero potentiometer.
3. Apply the maximum signal to the input (max Deg C)
4. Adjust the output signal to its maximum level of 20 mA by adjusting the span potentiometer.



HOUSING DIMENSIONS

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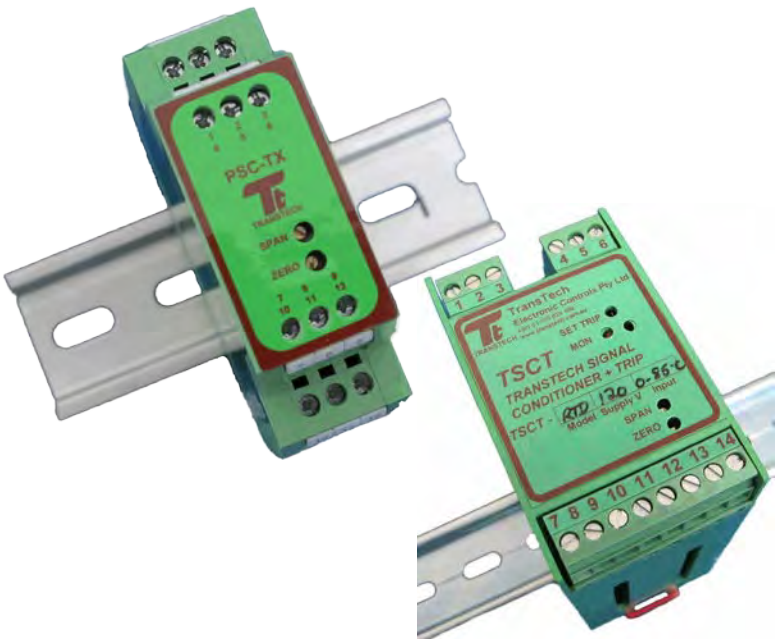
SECTION 2

Transtech Powered Transmitter & Trip Range



TYPICAL MODELS:

PSC-TX, TSC-VC, TSC-TCM, TSCT-VC, TSCT-RTD

DATA SHEET – Process Automation – Transmitter Range

Subject to change without notice

PSC-TX-12V, 24V, 48V

Configurable Transmitters for Active or Passive input

GENERAL DESCRIPTION

The PSC-TX is a powered signal conditioner whose inputs may be connected to either a passive or active mA source such as a field transmitter and the PSC-TX gives a proportional active (powered) standard instrument output in mA or Vdc.

The PSC-TX is a true 3 port galvanically isolated transmitter that can give true zero output or any standard instrument signal in dc mA, mV & V.

FEATURES

- 3 Port galvanic isolation
- Both DIN and G Rail mounting
- 0 to 10 Vdc monitor points
- Connect for either "passive or active"
- External loop supply for 2 wire transmitters (20Vdc at 25mA)
- External span and zero (non-interact)
- Very small footprint area
- Two outputs as standard :- 0 to 10V dc and a selected output (e.g. 4 - 20mA)
- Special Customer input/outputs upon request

Power Supply

Power Supply	12Vdc, 24Vdc or 48VDC (20 to 70Vdc)
VA Rating	Typically 1.6VA

Inputs and Outputs

Inputs (connected for either passive or active)

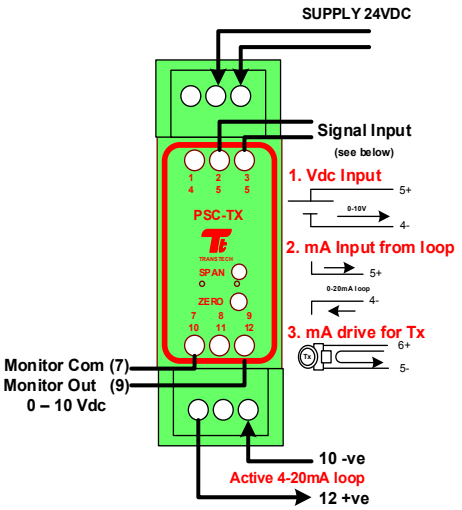
V dc input	0-1V, 1-5V, 0-10V, 0-100V
mA dc input	0-20mA, 4-20mA (Load 50 ohms)
Transmitter drive	4-20mA (drive = 18vdc nom)

Output (two as standard)

No 1 (fixed)	0-10Vdc (monitor)
No 2 (selected)	4-20mA into 1,000 ohms

General Specification

Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000 hrs
Common Mode	120dB
Response time	10 to 90% step in 250mSecs
Drift	0.03% of span per Deg C
Isolation Level	2500Vrms between input,output and power supply
Controls & Indication	External Span & Zero External monitor (0-10Vdc)
Operating Temp	0 to 60 Deg C
Storage Temp	0 to 75 Deg C
Terminals	Selfopening2.5mm/12AWG Housing material KRILEN
Mounting Style	DIN & G Rail
Dimensions	79mmX106mmX25mm
Weight	140 grams



CONNECTION DIAGRAM

Calibration & Set-up Instructions - field:-

The PSC-TX signal conditioner is a multi-function device which accepts both Volts and mA inputs.

The PSC-TX is normally factory set to calibration details supplied by the customer. If field adjustments are necessary the following steps should be taken to set the internal switches:-
Set SW1 (range switch) to required input range from chart above, more see below:-

SW1 settings

a) Voltage inputs

0 – 1v	***set 2 = ON balance OFF***
1 – 5v	***set 3,6 = ON balance OFF***
0 – 10v	***set 5 = ON balance OFF***

b) mA input (sink or source)

0 – 20mA	***set 1,2 = ON balance OFF***
4 – 20mA	***set 1,4,6 = ON balance OFF***

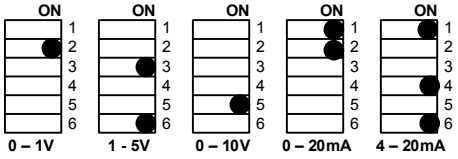
Set the input signal to zero and adjust the zero adjustment potentiometer to give 0.000Vdc at the monitor output.
1. Set the input signal to max and adjust the span adjustment potentiometer to give 10.000Vdc at the monitor output.

The unit is now fully calibrated as the span and zero adjustments are not inter-reactive.

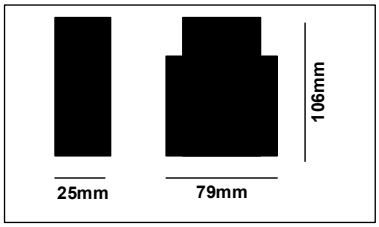
Available Models:

PSC-TX-12Vdc (specify input / output)
PSC-TX-24Vdc (specify input / output)
PSC-TX-48Vdc (specify input / output)

SWITCH SETTINGS



Special Inputs on request to 100V



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Design changes may occur in the interests of product performance & development **E&OE**

DATA SHEET – Process Automation – Signal Tx

Subject to change without notice

MODEL:- TSC-XXX

Powered Transmitter Series

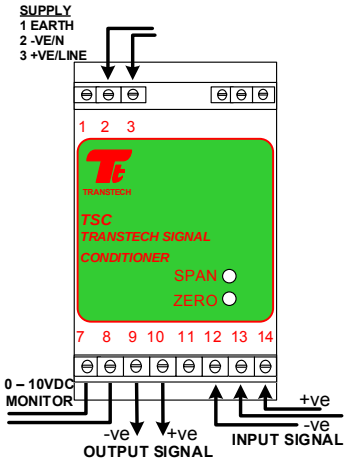
GENERAL DESCRIPTION

The TSC-XXX signal conditioner series accepts a range of inputs such as mA dc, mV dc, DC Volts/Current, RTD, TC and Slide wire and provides a proportional standard instrument output in mA dc or Volts dc.
The TSC-XXX series are mains powered devices offering true 3 port galvanic isolation between input – output - power supply and providing a transmitted output that gives true zero output or any standard instrument signal in mA dc or mV dc or Volts dc.

The TSC-XXX series can have an optional single additional trip – this is the TSCT-XXX series

FEATURES

- All standard inputs are link selectable
- Input monitor 0 - 10Vdc = 0 - 100%
- Full 3 Port galvanic isolation
- Externally accessible span/zero pot's (non-interactive)
- Plug off terminals for easy removal from service
- Two outputs as standard :- 0 to 10Vdc and a selected one (e.g. 4 - 20mA)
- Krilen housing non-combustible material
- Very small footprint area



CONNECTIONS

TECHNICAL DATA

Power Supply.

Nominal	120, 220/240 (40-60Hz) +/- 15% 24Vdc (20 – 32Vdc), 110Vdc
VA Rating	Typically 2VA

Available Inputs

ACV	Up to 600Vac
ACI	1 amp or 5 Amp input
mV dc	0-1mV up to 0-1000mV
V dc	0-1V, 0-2V, 0-5V, 0-10V
mA dc	0-1mA, 0-5mA, 0-10mA, 0-20mA, 0-50mA, 4-20mA, 10-50mA etc
Input Impedance	Varies with input type
Thermocouple	J, K, T, R, S,T Range 0 – 1000 Deg. C
RTD	PT-100, PT-1000 2 and 3 wire.
Frequency	Switch, Proximity or Frequency,

Others ranges and inputs upon request

Output (two as standard)

No 1 (fixed)	0-10Vdc fixed and not isolated from supply.
No 2 (selected)	4-20mA etc. (max loop load 900 Ohms)
Special Outputs (added cost)	Bi-polar output eg:- +10V to -10V for 0-10V Input

Other ranges and outputs upon request, (including bi-polar + / 0 / -).

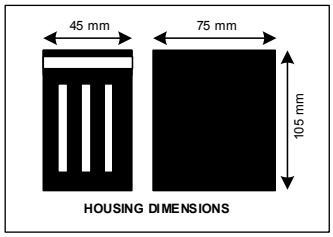
GENERAL SPECIFICATION

Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000 hrs.
Common Mode RR	120dB
Response time	10 to 90% step in 250mSecs
Drift	0.03% of span per Deg. C
Isolation level	2500Vrms between input, output and power supply
Controls & Indication	External Span/Zero adjust and external Monitor 0-10Vdc
Operating Temp	0 to 60 Deg. C
Storage Temp	0 to 75 Deg. C
Terminals	Self-opening 2.5mm/12AWG
Housing Material	KRILEN (non-combustible)
Mounting Style	DIN (or G rail with adaptor)
Dimensions	105mm X 75mm X 45mm
Weight	130 grams

INPUT TYPE

Terminal #	V/mV	mA	TWTX	TC	RTD	SW	HZ/Freq	N.Prox	3W Prox PNP	HZ/Sw	HZ/Electr	ACV	ACI
14	-	-	+ve	-	1	1	-	-ve	+ve	1	-ve	ACV	5A
13	+ve	+ve	-ve	+ve	2	2	+ve	+ve	switch	2	+ve	-	1A
12	-ve	-ve	-	-ve	3	3	-ve	-	-ve	-	-	COMM	COMM

CONNECTION INFORMATION



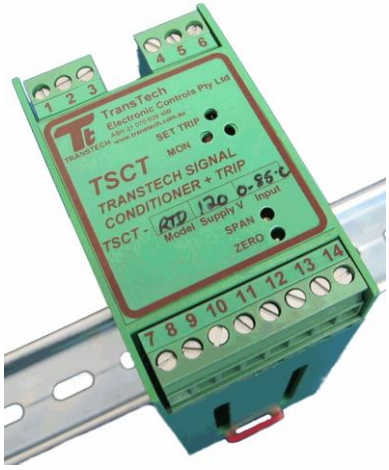
HOUSING DIMENSIONS

DATA SHEET – Process Automation – Signal Tx

Subject to change without notice

MODEL:- TSCT-XXX

Powered Transmitter with Trip Series

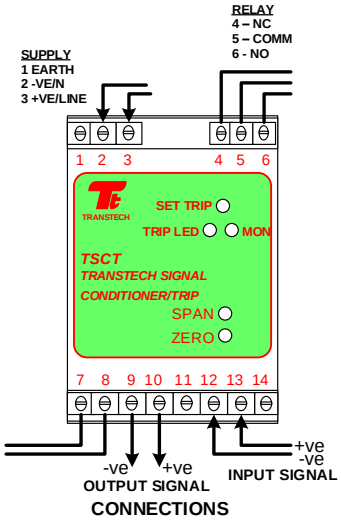


GENERAL DESCRIPTION

The TSCT-XXX signal conditioner series accepts a range of inputs such as mA dc, mV dc, DC Volts/Current, RTD, TC and Slide wire and provides a proportional standard instrument output in mA dc or Volts dc. In addition the TSCT-XXX offers a single changeover relay output for a high or low alarm.
The TSCT-XXX series are mains powered devices offering true 3 port galvanic isolation between input – output - power supply and providing a transmitted output that gives true zero output or any standard instrument signal in mA dc or mV dc or Volts dc.

FEATURES

- All standard inputs are link selectable
- Input monitor 0 - 10Vdc = 0 - 100%
- Full 3 Port galvanic isolation
- Externally accessible span/zero pot's (non-interactive)
- Plug off terminals for easy removal from service
- Two outputs as standard :- 0 to 10Vdc and a selected one (e.g. 4 - 20mA)
- Single Trip Relay c/o contact – configurable.
- Krilen housing non-combustible material
- Very small footprint area



CONNECTIONS

Power Supply.

Nominal	120, 220/240 (40-60Hz) +/- 15% 24Vdc (20-32Vdc) 110Vdc
VA Rating	Typically 2.0VA
Input (link selectable)	
ACV	Up to 600Vac
ACI	1 amp or 5 Amp input
mV dc	0-1mV up to 0-1000mV
V dc	0-1V, 0-2V, 0-5V, 0-10V up to 300V max
mA dc	0-1mA, 0-5mA, 0-10mA, 0-20mA, 0-50mA, 4-20mA, 10-50mA etc
Input Impedance	Varies with input type
Thermocouple	J, K, T, R, S,T Range 0 – 1000 Deg. C
RTD	PT-100, PT-1000 2 and 3 wire.
Frequency	Switch, Proximity or Frequency,
Others inputs upon request	

Output (two as standard)	
No 1 (fixed)	0-10Vdc
No 2 (selected)	4-20mA etc. (max loop load 900 Ohms).

Output Trip as standard.	
Relay	A Form C changeover contact Rated 24Vdc @ 1Amp / 120Vac @ 0.5Amp

Other ranges outputs upon request (Including bi-polar + / 0 / -).

GENERAL SPECIFICATION

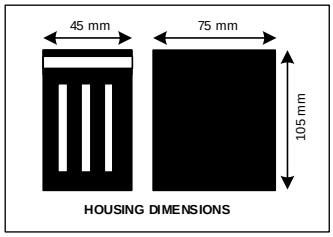
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000 hrs.
Common Mode RR	120dB
Response time	10 to 90% step in 250mSecs
Drift	0.03% of span per Deg. C
Isolation level	2500Vrms between input, output and power supply
Controls & Indication	External Span/Zero adjust and external Monitor 0-10Vdc
Operating Temp	0 to 60 Deg. C
Storage Temp	0 to 75 Deg. C
Terminals	Self-opening 2.5mm/12AWG
Housing Material	KRILEN (non-combustible)
Mounting Style	DIN (or G rail with adaptor)
Dimensions	105mm X 75mm X 45mm (H x D x W)
Weight	130 grams

PART NUMBERING

TSCT-VC-240V

- Family: Transtech Signal Conditioner
- Trip Relay: Changeover contacts. N/Energ or N/D-Energ Hi or Lo Trip
- Type of Input:
  - ACI = 1 or 5Amp CT
  - ACV = AC Voltage
  - HZ = Frequency from Switch, Proximity etc
    Specify the frequency range
  - RTD – Resistance Element Type PT100 etc
    Specify the tempeature range
  - SW = Slidewire device 2 or 3 wire
    Specify the resistance range
  - TC = Thermocouple Type J,K,T,R,S,T
    Specify the tempeature range
  - VC = Voltage or Current
    Specify the mV or V or mA range
- Supply Voltage: 24Vdc, 24Vac, 48Vdc, 110Vdc, 120Vac, 240Vac
- Type of Output:
  - mA: 0-10mA, 0(4)-20mA, 0(10)-50mA
  - mV & V: 0-10mV, 1-5Vdc, 2-10Vdc
  - Specials: +10 / 0 / -10mA etc

TSCT-VC-240VAC



HOUSING DIMENSIONS

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TRANSTECH

SECTION 3

Transtech Powered Transmitter & Trip Range – New Series

TYPICAL MODELS:

TPSC-VC, TPSC-RTD, TPSCT-VC

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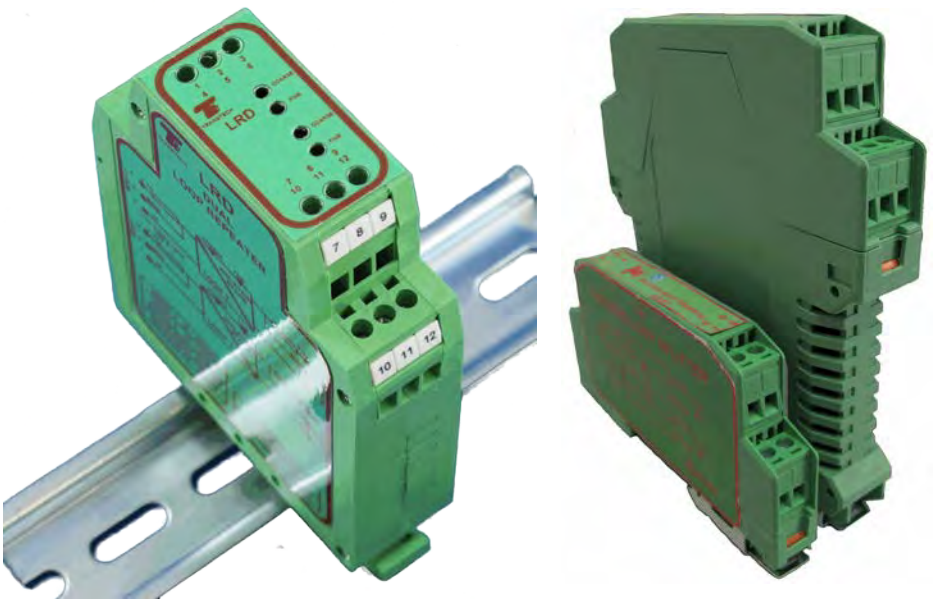
TRANSTECH

SECTION 4

Transtech Loop Isolator Range



TYPICAL MODELS:

LRS, LRD, LRS-24V, LRD-24

DATA SHEET – Process Automation – Loop Isolation

Subject to change without notice

MODEL:- LRS

Loop Repeater 1Ch 4-20mA.

GENERAL DESCRIPTION

The LRS is a fully floating 4-20mA signal isolator that provides up to 2500Vrms isolation between the input loop and the output loop. The LRS can be used as a noise filter or reducer of common mode noise in some 4-20mA current loops. The LRS is manually adjustable to suit the individual loop loading, the adjustments being done from the top of the module via multi-turn potentiometers.

The LRS is factory calibrated for a 250 ohm output load unless otherwise specified.

FEATURES

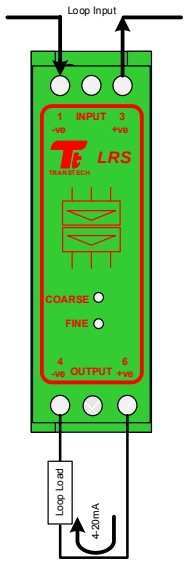
- Full galvanic isolation input and output
- Both DIN and G rail mounting
- External Monitor points (40-200mV)
- External adjustment points
- Very small footprint of 25mm width

TECHNICAL DATA

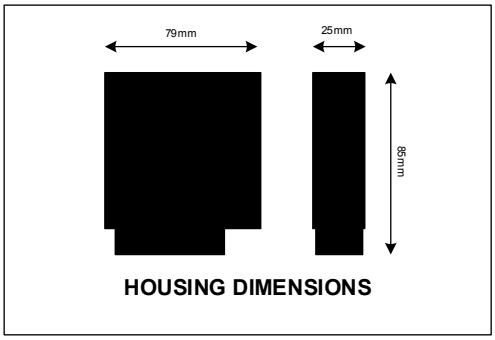
Loop Voltage	Between 12 and 45Vdc
Input	4 to 20mA
Output	4 to 20mA
Loop Resistance	250 ohms maximum per loop
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Four Port Isolation	1500V (galvanic, all ports)
Power Indicator	Blue LED

GENERAL SPECIFICATION

Loop Voltage	12 to 45Vdc
Loop Resistance	Load plus 250 ohms maximum.
Long term drift	<0.1% of span per 10,000hrs
Isolation Level	1500V (galvanic, all ports)
Creepage distance	≥2.0mm. (Port to Port)
Output Noise Level	3.2µA rms (typical).
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 100mS (10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	79mm x 85mm x 25mm (see profile)
Weight	90 grams



SCHEMATIC DIAGRAM



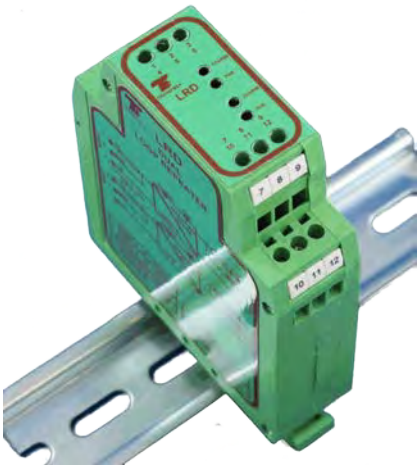
HOUSING DIMENSIONS

DATA SHEET – Process Automation – Loop Isolation

Subject to change without notice

MODEL:- LRD

Loop Repeater 2 Ch. 4-20mA



GENERAL DESCRIPTION

The LRD is a fully floating 2 channel 4-20mA signal isolator that provides up to 2500Vrms isolation between the input loop and the output loop. The LRD can be used as a noise filter or reducer of common mode noise in some 4-20mA current loops. The LRD's input can be linked to give a single input with dual isolated outputs and it is manually adjustable to suit the individual loop loading, the adjustments being done from the top of the module via multi-turn potentiometers.

The LRD is factory calibrated for a 250 ohm output load unless otherwise specified.

FEATURES

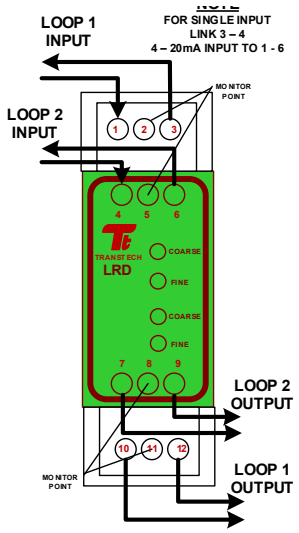
- Full galvanic isolation input and output
- Both DIN and G rail mounting
- External Monitor points (40-200mV)
- External adjustment points
- Very Small footprint of 25mm width
- Internal monitoring resistors are all 1%

TECHNICAL DATA

Loop Voltage	Between 12 and 45Vdc)
Five Port Isolation	2500V nominal
Input Range 2 channel **Optional Single Input**	4 to 20mA Link terminals 3 & 4
Output Range 2 channel	4 to 20mA
Loop Resistance **ESD Protection**	250 ohms/loop maximum Nominally 2.5kV (all ports) (IEC 61000-4-2)

GENERAL SPECIFICATION

Supply Voltage	12 to 45Vdc
Loop Resistance	Load plus 250 ohms
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	2500V d.c.
Creepage distance	≥2.5mm. (port to port)
Output Noise	3.2µA r.m.s. (typical).
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 100mS
(to 1%)	(10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	79mm X 106mm X 25mm
Weight	135 grams



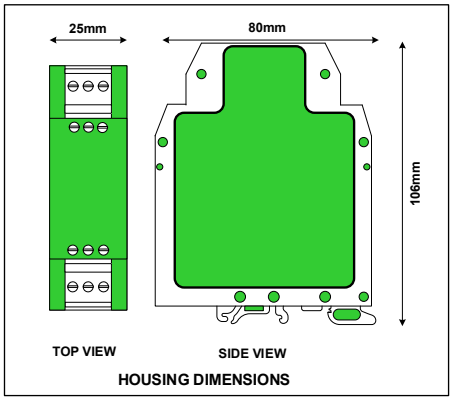
CONNECTION DIAGRAM

CALIBRATION & SET-UP INSTRUCTIONS:-

All **Transtech** signal conditioners are normally factory set to calibration details supplied by the customer. If field adjustments are necessary the following steps should be taken:

1. Adjust the **"FINE"** potentiometer fully clockwise.
2. Set the input loop current to 20mA **with a load connected on BOTH outputs.**
3. Monitor the input and the t loop currents via the monitoring terminals (***input*** on terminals 2 and 3 the ***output*** on terminals 5 and 6).
4. Adjust the **"COARSE"** potentiometer until the output monitor reads 200mV, (use the "FINE" potentiometer for finer adjustment)
5. The monitoring points should now read:
   40mV for 4mA input
   200mV for 20mA input.

NOTE: The internal monitoring resistors are all 10.00 ohms, 1%.



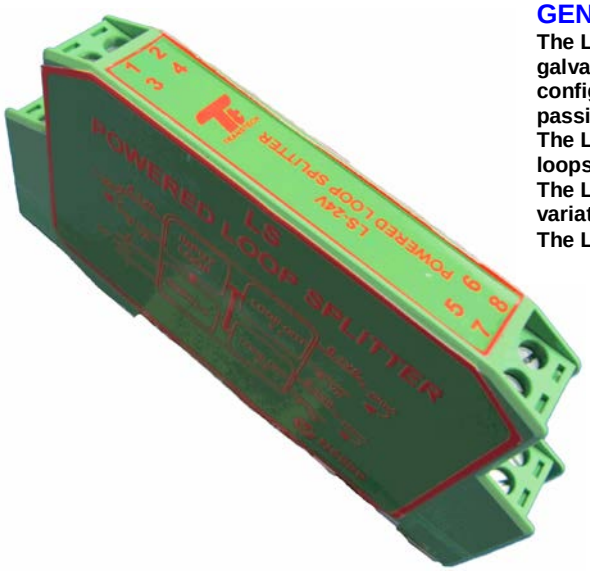
HOUSING DIMENSIONS

DATA SHEET – Process Automation – Loop Isolation

Subject to change without notice

MODEL:- LSx/xx-M

Powered Loop Splitter with Single Analogue IN / Dual OUT.



GENERAL DESCRIPTION

The LSx/xx-M range offers users a fully floating signal isolator that provides up to 1500V galvanic isolation between all ports with true four (4) port isolation. The LSx/xx-M can be configured as either a powered repeater/loop splitter or as a special with one active plus one passive output. Both outputs are completely independent of each other.
The LSx/xx-M can be used as a noise filter or reducer of common mode noise in current loops.
The LSx/xx-M output currents/voltages are totally independent of load or line resistance variations, up to the 1200ohm limit, the voltage output versions can source up to 10mA.
The LS-M 24V is factory calibrated and there are no user accessible adjustments required.

FEATURES

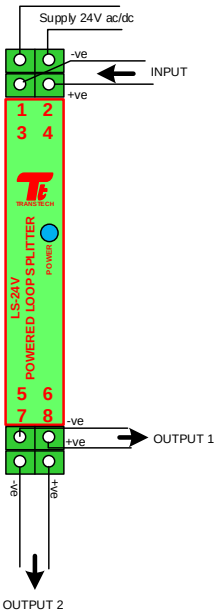
- **Power LED**
- **Wide operating supply range 18-72V**
- **True four (4) port isolation**
- **Port to port creepage distance ≥ 2mm**
- **No user adjustment required**
- **Optical Isolation**
- **Current output 1200 ohms per loop resistance**
- **Voltage output load ability better than 10mA**
- **Output resistance D.C. (voltage) typically 10mΩ**
- **DIN rail mounting**
- **Very Small footprint 51.3mm x 12.5mm x 99mm H x W x L**

TECHNICAL DATA

Supply Voltage	24V or 48Vac/dc nominal (18V to 72V ac or dc)
Supply Power	650mW plus loop power
Inputs Available	0(4) to 20mA or 0-10Vdc
Outputs Available	
Output 1	See Table below
Output 2	See table below
Loop Resistance	1200 ohms maximum per output current loop
Loop Voltage	10mA maximum drive current
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Four Port Isolation	1500V (galvanic, all ports)
Power Indicator	Blue LED

GENERAL SPECIFICATION

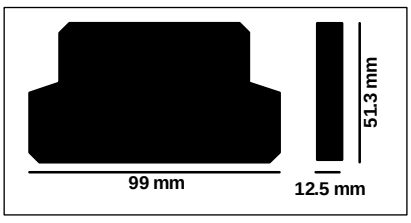
Supply Voltage	18 to 72V ac or dc (not polarity sensitive)
Loop Resistance	1200 ohms each loop max.
Long term drift	<0.1% of span per 10,000hrs
Isolation Level	1500V (galvanic, all ports
Creepage distance	≥2.0mm. (Port to Port)
Output Noise Level	3.2µA rms (typical).
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 100mS (10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	51.3mm x 12.5mm x 99mm (see profile)
Weight	41 grams



SCHEMATIC DIAGRAM
LSx/xx-M

TABLE 1

MODEL	INPUT	OUTPUT 1	OUTPUT 2	SUPPLY
LSI/V-M	4-20mA	0-10V	0-10V	24 or 48Vac/dc
LSI/I-M	0(4)-20mA	0(4)-20mA	0(4)-20mA	24 or 48Vac/dc
LSI/IAP-M	4-20mA	4-20mA Active	4-20mA Std.	24 or 48Vac/dc
LSI/IV-M	4-20mA	4-20mA	0-10V	24 or 48Vac/dc
LSV/I-M	0-10V	0(4)-20mA	0(4)-20mA	24 or 48Vac/dc

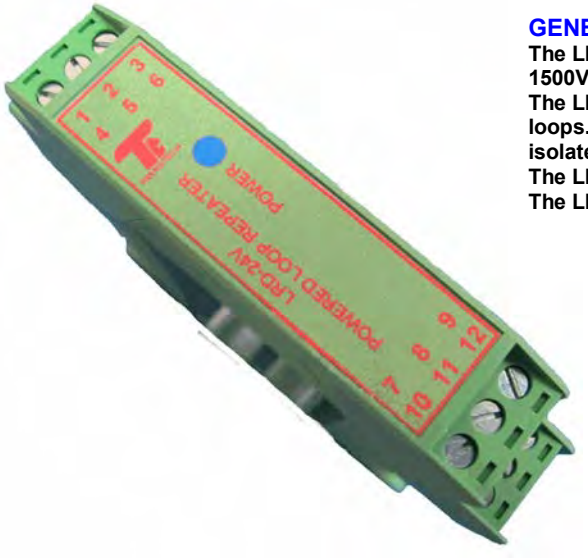


DATA SHEET – Process Automation – Loop Isolation

Subject to change without notice

MODEL:- LRD-24V

24V Powered Loop Repeater 2 Channel



GENERAL DESCRIPTION

The LRD-24V is a "Universal" powered, five port isolated, loop repeater that offers up to 1500V isolation between ports. The input power for the LRD-24V is not polarity sensitive.
The LRD-24V can be used as a noise filter or reducer of common mode noise in some current loops. Further, the LRD-24V may be linked on its input to give a single input and fully isolated dual output device
The LRD-24V output currents are independent of the loop resistance up to the 1200ohm limit.
The LRD-24V is factory calibrated and there are no user accessible adjustments required.

FEATURES

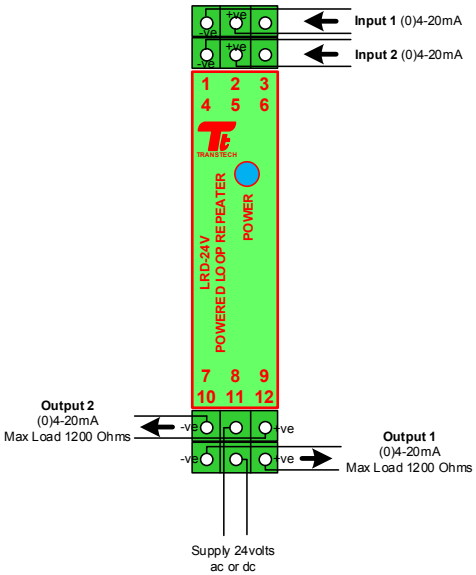
- Wide operating supply range 10-72V
- True five (5) port isolation
- Port-port creepage distance ≥ 2.5mm
- No user adjustment required.
- Optical Isolation
- In excess of 1200 ohms loop resistance
- DIN rail mounting
- Very Small footprint of 17.5mm width

TECHNICAL DATA

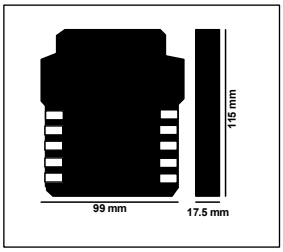
Supply Voltage	24Vac/dc nominal (10V to 72V ac or dc)
Supply Power	650mW plus loop power
Five Port Isolation	1500V nominal
Input Range 2 channel	0(4) to 20mA
Optional Single Input	Link terminals 1 & 5
Output Range 2 channel	0(4) to 20mA
Loop Resistance	1200 ohms/loop maximum
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Power Indicator	Blue LED

GENERAL SPECIFICATION

Supply Voltage	10 to 72Vdc
Loop Resistance	1200 ohms
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	1500V d.c.
Creepage distance	≥2.5mm. (port to port)
Output Noise	3.2µA r.m.s. (typical).
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 100mS
(to 1%)	(10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	79mm X 106mm X 25mm
Weight	135 grams



SCHEMATIC DIAGRAM



DATA SHEET – Process Automation – Volt Repeater

Subject to change without notice

MODEL:- LRD-V-24V

24V Powered Voltage Repeater 2 Channel

GENERAL DESCRIPTION

The LRD-V-24V is a "Universal" powered, five port isolated, voltage repeater that offers up to 1500V isolation between ports. The input power for the LRD-V-24V is not polarity sensitive. Further, the LRD-V-24V may be linked on its input to give a single input and fully isolated dual output device
The LRD-V-24V output voltages are independent of the input impedance.
The LRD-V-24V is factory calibrated and there are no user accessible adjustments required.

FEATURES

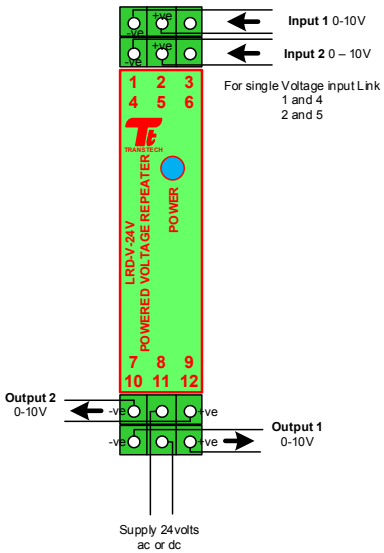
- **Wide operating supply range 10-72V**
- **True five (5) port isolation**
- **Port-port creepage distance ≥ 2.5mm**
- **No user adjustment required.**
- **Optical Isolation**
- **CISPIR 11 Compliant**
- **IEC61373, EN50155, EN50121-3-2 Compliant**
- **DIN rail mounting**
- **Very Small footprint of 17.5mm width**

TECHNICAL DATA

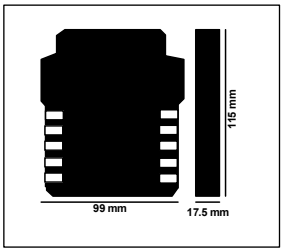
Supply Voltage	24Vac/dc nominal (10V to 72V ac or dc)
Supply Power	650mW plus loop power
Five Port Isolation	1500V nominal
Input Range 2 channel	0 to 10Vdc
Optional Single Input	Contact the Factory
Output Range 2 channel	0 to 10Vdc
Output Impedance	1Meg Ohms nominally
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Power Indicator	Blue LED

GENERAL SPECIFICATION

Supply Voltage	10 to 72Vdc
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	1500V d.c.
Creepage distance	≥2.5mm. (port to port)
Output Noise	3.2µA r.m.s. (typical).
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 100mS
(to 1%)	(10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	79mm X 106mm X 25mm
Weight	135 grams



SCHEMATIC DIAGRAM



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TRANSTECH

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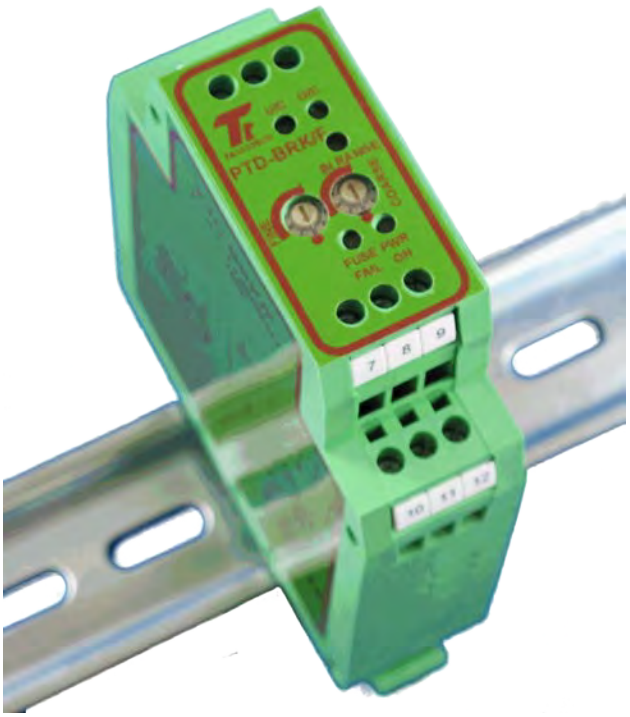
SECTION 5

Transtech Trip Module Range



TYPICAL MODELS:

PTS-VC, PTD-VC, PTD-BRK/FS, PTD-BRK/FF

DATA SHEET – Process Automation – Alarm Trip

Subject to change without notice

PTS-VC-XX

Powered Alarm Single Trip Module

GENERAL DESCRIPTION

The PTS-VC-XX is a fully isolated trip amplifier/alarm module that accepts either a voltage or current input signal and provides a single (1) independently adjustable trip relay output.

The PTS-VC-XX can be used as a standalone alarm unit for high or low level alarms. The relay can be field set by the use of internal links for high or low and energized or de-energised. The relay has its own dead band adjustment which can be set from between 0 - 60% of input signal.

FEATURES

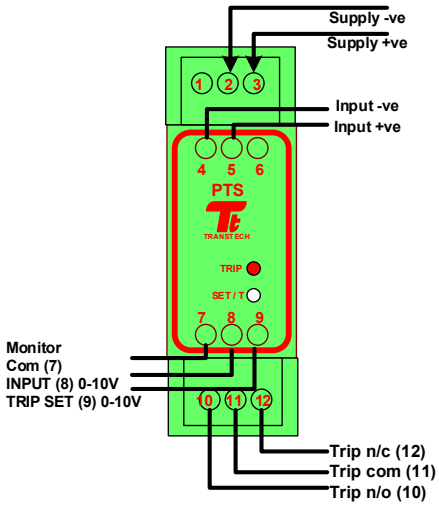
- Special 24VDC Supply Level
- Output current to 3 Amps (fused)
- Externally Accessible Set Points
- System Healthy Indication
- Voltage Healthy Indication
- Current Healthy Indication
- OFF time delay (factory set)
- Fail Safe System
- Very small footprint area.

TECHNICAL DATA

Power Supply.	**12Vdc, 24Vdc or 48Vdc**
VA Rating	Typically 1.0VA
Max Power	Typically 1.5 VA (relay energised)
Input – Standard Ranges	
Volts	0-10 Vdc
Current	4-20 mA
Amps dc	0 - 3 Amps dc
Input Resistance	0.03R
Other ranges upon request	
Output (one c/o relay)	1 Relay c/o contact

GENERAL SPECIFICATION

Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.5% over 10,000 hrs
Common Mode	110dB
Response time	20 to 90% step in 150mSecs
Drift	0.3% of span per Deg C
Isolation level	2500Vrms between input, output and power supply
Dead Band	Adjustable 1% - 60%
Trip Settings	Adjustable 0 - 100%
Trip Status	LED (external)
Output Relay	
Contact Configuration	1 Form C (SPDT)
Contact Rating	240Vac 1 Amp 30Vdc 1 Amp
Max Cont. Current	2 Amps
Vibration	20G, 10 - 300Hz
Shock	Error 50G
Life Expectancy	Mechanical 5 X 10,000,000
Operating Time	5 mSec
Max Switching Freq.	5 Hz
Operating Temp	0 to 60 Deg C
Store Temp	-25 to +75 Deg C
Mounting Style	DIN & G Rail
Terminals	Self-opening 2.5mm/12AWG
Housing Material	KRILEN
Dimensions	79 x 106 x 25mm wide
Weight	110 grams



CONNECTION DIAGRAM

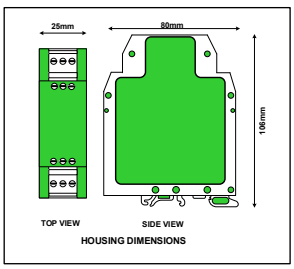
SETTING THE RELAY OPERATION

The relay in the PTS series is fully programmable according to the customer's wishes/application. Please request the set-up tables from Transtech.
At power-up the relay is selected to be normally energised or de-energised and to trip upon an increasing input signal (high trip) or decreasing input signal (low trip).

HI-TRIP is defined as the relay operating when the input signal increases past the set point.

LO-TRIP is defined as the relay operating when the input signal decreases below the set point.

DEADBAND (hysteresis) has been incorporated to prevent the output relay from switching when the input signal varies slightly on the set point. Dead band level is adjustable from 0 to 60% of the input signal.



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DATA SHEET – Process Automation – Alarm Trip

Subject to change without notice

PTD-VC-XX

Powered Alarm Dual Trip Module

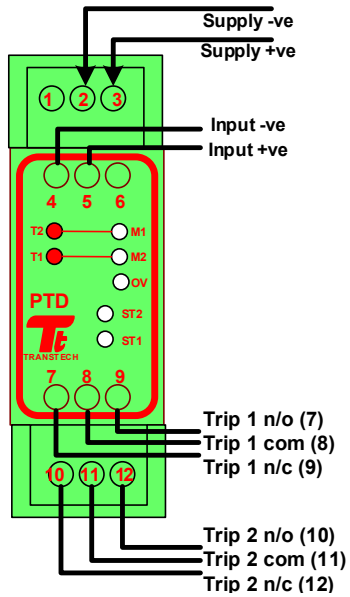
GENERAL DESCRIPTION

The PTD-VC-XX is a fully isolated trip amplifier/alarm module that accepts either a voltage or current input signal and provides two (2) independently adjustable trip relays output.

The PTD-VC-XX can be used as a standalone alarm unit for high or low level alarms. The relays can be field set by the use of internal links for high or low and energized or de-energised. The relays have their own dead band adjustment which can be set from between 0 - 60% of input signal.

FEATURES

- Special 24VDC Supply Level
- Output current to 3 Amps (fused)
- Externally Accessible Set Points
- System Healthy Indication
- Voltage Healthy Indication
- Current Healthy Indication
- OFF time delay (factory set)
- Fail Safe System
- Very small footprint area.



TECHNICAL DATA

Power Supply.	**12Vdc, 24Vdc or 48Vdc**
VA Rating	Typically 1.0VA
Max Power	Typically 1.5 VA (relay energised)
Input – Standard Ranges	
Volts	0-10 Vdc
Current	4-20 mA
Amps dc	0 - 3 Amps dc
Input Resistance	0.03R
Other ranges upon request	
Ouput (two c/o relay)	Two (2) Relays with c/o contact

GENERAL SPECIFICATION

Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.5% over 10,000 hrs
Common Mode	110dB
Response time	20 to 90% step in 150mSecs
Drift	0.3% of span per Deg C
Isolation level	2500Vrms between input, output and power supply
Dead Band	Adjustable 1% - 60%
Trip Settings	Adjustable 0 - 100%
Trip Status	LED (external)
Output Relay	
Contact Configuration	2 x Form C (SPDT)
Contact Rating	240Vac 1 Amp 30Vdc 1 Amp
Max Cont. Current	2 Amps
Vibration	20G, 10 - 300Hz
Shock	Error 50G
Life Expectancy	Mechanical 5 X 10,000,000
Operating Time	5 mSec
Max Switching Freq.	5 Hz
Operating Temp	0 to 60 Deg C
Store Temp	-25 to +75 Deg C
Mounting Style	DIN & G Rail
Terminals	Self opening 2.5mm/12AWG
Housing Material	KRILEN
Dimensions	79 x 106 x 25mm wide
Weight	110 grams

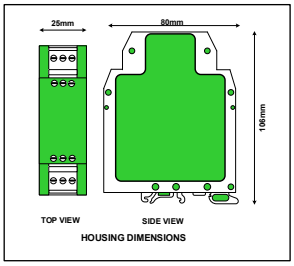
SETTING THE RELAY OPERATION

The relay in the PTS series is fully programmable according to the customer's wishes/application. Please request the set-up tables from Transtech.
At power-up the relay is selected to be normally energised or de-energised and to trip upon an increasing input signal (high trip) or decreasing input signal (low trip).

HI-TRIP is defined as the relay operating when the input signal increases past the set point.

LO-TRIP is defined as the relay operating when the input signal decreases below the set point.

DEADBAND (hysteresis) has been incorporated to prevent the output relay from switching when the input signal varies slightly on the set point. Dead band level is adjustable from 0 to 60% of the input signal.



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DATA SHEET – Process Automation – Conveyor Controls

Subject to change without notice

PTD-BRK/FS

Powered Current Sensing Trip Amplifier – Brake Motors

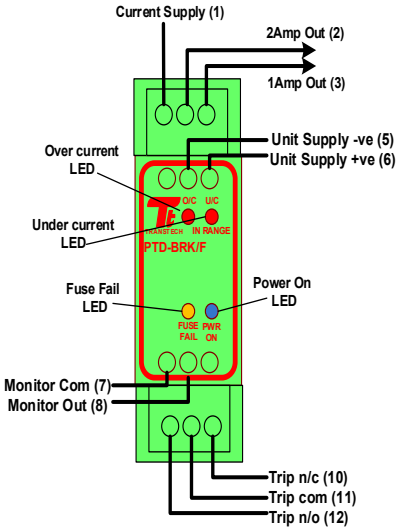
GENERAL DESCRIPTION

The PTD-BRK/FS is a fully isolated dual trip amplifier/alarm module that accepts an AC or DC current input from 0 Amp up to 2 Amps from up to a 415V supply line.

The PTD-BRK/FS provides a trip relay output which operates between the fixed "Base" and "Maximum" current setting. It works as a stand-alone alarm unit and operates as a window comparator where the relay de-energises if the signal goes below 50mA or above 500mA. The relay has a fixed dead-band of 20%.

FEATURES

- Wide Operating Voltage Range
- Set Point Trip Status LED's
- Trip window factory set with status LED's
- Very small footprint area
- DIN & G rail mounting style
- Low power consumption
- 600V HBC 3.15A Input Protection Fuse



CONNECTION DIAGRAM

TECHNICAL DATA

Power Supply.

Nominal Supply	22V - 60Vac/dc
VA Rating	Typically 1.2VA
Max Power	Typically 1.3VA with relay energised.

Input (Internally Fuse Protected 3.15A SIBA 189-020)

Amps AC or DC	0 Amp to 1Amps (Terms 1-3) 0 Amp to 2Amps (Terms 1-2)
Base Current (1A)	50mA to 500mA
Base Current (2A)	120mA to 1000mA
Volts (max)	500Vac/300Vdc on terms 1 & 3
Input Resistance	< 0.1 Ohm

Output (Single relay c/o output)

Set Point	Relay c/o contact Under Current and/or Over Current fixed set points.
For 0 – 1Amp	0– 10Vdc (1A = 10V)

GENERAL SPECIFICATION

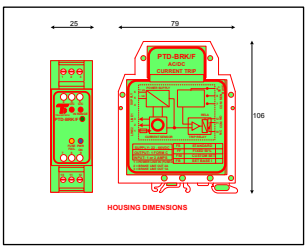
Accuracy	2.5% of span
Linearity	1% of span
Response time	0 to 110% step in 1.5 sec
Drift	0.25% per Deg C
Isolation level	Greater than 500Vrms
Dead Band	Fixed at 20% of relay set.
Trip Settings	Under Current - 50% of Base Over Current + 50% of Base
Trip Status	2 x Red,
Fuse Status	1 x Yellow LED
Power Status	1 x Blue LED

Output Relay

Contact Configuration	1 Form C (SPDT)
Max Voltage	Up to 220 Vdc or 250 Vac
Max Power Rating	30 Watts or 62.5 VA
Max Cont. Current	2 Amps (non-inductive)
Vibration	20G
Shock	75G
Life Expectancy	Mechanical 10 x 10^6

Mechanical

Operating Temp	0 to 60 Deg C
Store Temp	-25 to +75 Deg C
Mounting Style	DIN & G Rail
Terminals	2.5mm² / 12AWG
Housing Material	KRILEN
Dimensions	79 x 106 x 25mm wide
Weight	110 grams



DATA SHEET – Process Automation – Conveyor Controls

Subject to change without notice

PTD-BRK/FF-3A

Powered Current Sensing Trip Amplifier (field settable) for Brake Motors

GENERAL DESCRIPTION

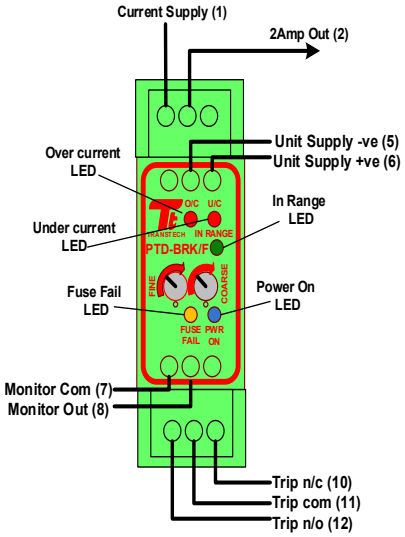
The PTD-BRK/FF-3A is a fully isolated dual trip amplifier/alarm module that accepts an AC/DC current input from 0 Amp up to 3 Amps from up to a 415V supply line.

The PTD-BRK/FF-3A provides an adjustable trip relay output. The relay is normally energised and trips on both Hi and Lo alarm conditions. The 'Base' current is set by two front panel adjustment switches with the standard unit having set points fixed at +50% and -50% of the Base current.

The PTD-BRK/FF-3A is a stand-alone alarm unit and operates as a window comparator where the relay de-energises if the signal goes outside either the Lo or Hi settings. The relay has a fixed dead-band of 20%.

FEATURES

- Wide Operating Voltage Range
- Set Point Trip Status LED's
- Trip window set by the 2 front panel selector switches and status LED's
- Very small footprint area
- DIN & G rail mounting style
- Low power consumption
- 600V HBC 3.15A Input Protection Fuse



CONNECTION DIAGRAM

TECHNICAL DATA

Power Supply.

Nominal Supply	22V - 60Vac/dc
VA Rating	Typically 1.2VA
Max Power	Typically 1.3VA with relay energised.

Input (Internally Fuse Protected 3.15A SIBA 189-020)

Amps AC or DC	0 Amp to 1.5Amps (Terms 1-3) 0 Amp to 3.0Amps (Terms 1-2)
Base Current (1A)	860mA
Base Current (2A)	1.72Amps
Volts (max)	500Vac/300Vdc on terms 1 & 3
Input Resistance	< 0.1 Ohm

Output (Single relay c/o output)

Set Point	Relay c/o contact Under Current and/or Over Current fixed set points.
For 0 – 3Amp	0 – 7.5Vdc (limited span)

GENERAL SPECIFICATION

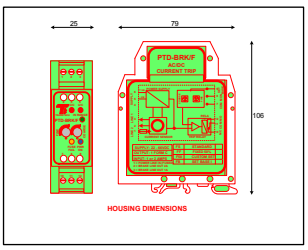
Accuracy	2.5% of span
Linearity	1% of span
Response time	0 to 110% step in 1.5 sec
Drift	0.25% per Deg C
Isolation level	Greater than 500Vrms
Dead Band	Fixed at 20% of relay set.
Trip Settings	Under Current - 50% of Base Over Current + 50% of Base
Trip Status	2 x Red, 1 x Green LEDs
Fuse Status	1 x Yellow LED
Power Status	1 x Blue LED

Output Relay

Contact Configuration	1 Form C (SPDT)
Max Voltage	Up to 220 Vdc or 250 Vac
Max Power Rating	30 Watts or 62.5 VA
Max Cont. Current	2 Amps (non-inductive)
Vibration	20G
Shock	75G
Life Expectancy	Mechanical 10 x 10^6

Mechanical

Operating Temp	0 to 60 Deg C
Store Temp	-25 to +75 Deg C
Mounting Style	DIN & G Rail
Terminals	2.5mm² / 12AWG
Housing Material	KRILEN
Dimensions	79 x 106 x 25mm wide
Weight	110 grams



DATA SHEET – Process Automation – Conveyor Controls

Subject to change without notice

PTD-BRK/FF

Powered Current Sensing Trip Amplifier (field settable) for Brake Motors

GENERAL DESCRIPTION

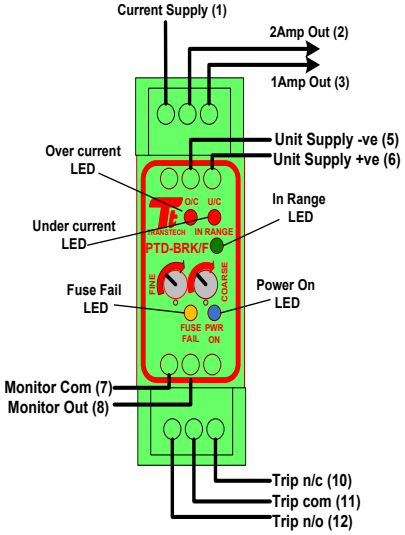
The PTD-BRK/FF is a fully isolated dual trip amplifier/alarm module that accepts an AC/DC current input from 0 Amp up to 2 Amps from up to a 415V supply line.

The PTD-BRK/FF provides an adjustable trip relay output. The relay is normally energised and trips on both Hi and Lo alarm conditions. The 'Base' current is set by two front panel adjustment switches with the standard unit having set points fixed at +50% and -50% of the Base current.

The PTD-BRK/FF is a stand-alone alarm unit and operates as a window comparator where the relay de-energises if the signal goes outside either the Lo or Hi settings. The relay has a fixed dead-band of 20%.

FEATURES

- Wide Operating Voltage Range
- Set Point Trip Status LED's
- Trip window set by the 2 front panel selector switches and status LED's
- Very small footprint area
- DIN & G rail mounting style
- Low power consumption
- 600V HBC 3.15A Input Protection Fuse



CONNECTION DIAGRAM

TECHNICAL DATA

Power Supply.

Nominal Supply	22V - 60Vac/dc
VA Rating	Typically 1.2VA
Max Power	Typically 1.3VA with relay energised.

Input (Internally Fuse Protected 3.15A SIBA 189-020)

Amps AC or DC	0 Amp to 1Amps (Terms 1-3) 0 Amp to 2Amps (Terms 1-2)
Base Current (1A)	50mA to 500mA
Base Current (2A)	120mA to 1000mA
Volts (max)	500Vac/300Vdc on terms 1 & 3
Input Resistance	< 0.1 Ohm

Output (Single relay c/o output)

Set Point	Relay c/o contact Under Current and/or Over Current fixed set points.
For 0 – 1Amp	0– 10Vdc (1A = 10V)

GENERAL SPECIFICATION

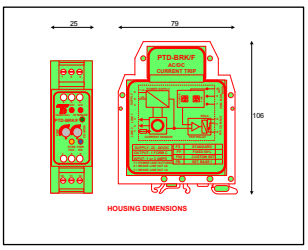
Accuracy	2.5% of span
Linearity	1% of span
Response time	0 to 110% step in 1.5 sec
Drift	0.25% per Deg C
Isolation level	Greater than 500Vrms
Dead Band	Fixed at 20% of relay set.
Trip Settings	Under Current - 50% of Base Over Current + 50% of Base
Trip Status	2 x Red, 1 x Green LEDs
Fuse Status	1 x Yellow LED
Power Status	1 x Blue LED

Output Relay

Contact Configuration	1 Form C (SPDT)
Max Voltage	Up to 220 Vdc or 250 Vac
Max Power Rating	30 Watts or 62.5 VA
Max Cont. Current	2 Amps (non-inductive)
Vibration	20G
Shock	75G
Life Expectancy	Mechanical 10 x 10^6

Mechanical

Operating Temp	0 to 60 Deg C
Store Temp	-25 to +75 Deg C
Mounting Style	DIN & G Rail
Terminals	2.5mm² / 12AWG
Housing Material	KRILEN
Dimensions	79 x 106 x 25mm wide
Weight	110 grams



DESIGNED & MANUFACTURED by: Transtech Electronic Controls Pty Ltd Perth W.A. ABN: 21 070 629 499
Design changes may occur in the interests of product performance & development **E&OE**

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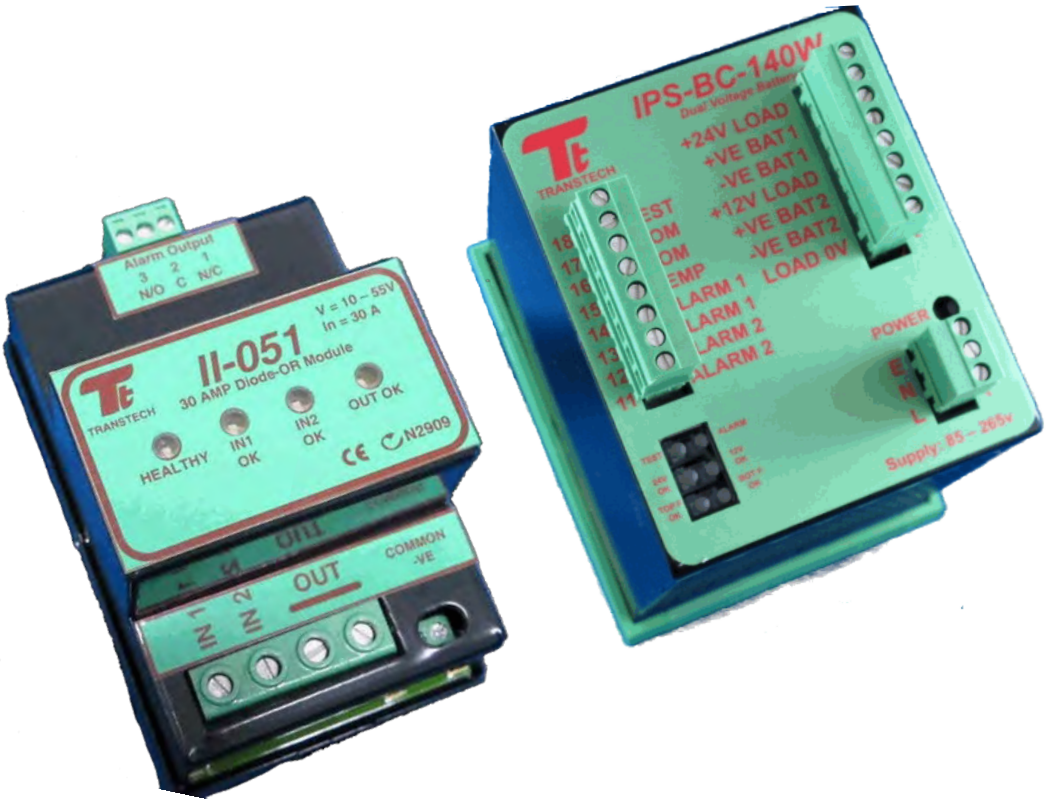
TRANSTECH

SECTION 6

Transtech IPS-BC & UPS Range



TYPICAL MODELS:

IPS-BC-140W, IPS-360W & IPS-UPS

POWER SUPPLIES - BATTERY CHARGERS - UPS

IPS- Industrial Power Supplies

Note - below list is not the complete range of available product Transtech manufactured

All Prices Subject to Change without Notice

Process - Industrial - Mining - Commercial - Government - Factories - Research

FIG 1

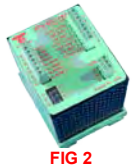


FIG 2

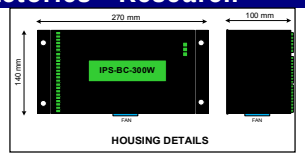


FIG 3

FIG 4

FIG 5

	MODELS	INPUT VOLTAGE	OUTPUT VOLTAGE AMPS	BATTERY AH MAX	MAX TEMP	ALARMS LED's	ALARMS RELAYS	FIGURE No	DIMENSIONS in mm W	H	D	
LINEAR POWER SUPPLIES	IPS-1A-SL/12V 120V	120VAC	12VDC/1A	N/A	70Deg C	Yes	No	FIG 1	70	70	110	
	IPS-1A-SL/12V 240V	240VAC	12VDC/1A	N/A	70Deg C	Yes	No	FIG 1	70	70	110	
	IPS-1A-SL/24V 120V	120VAC	24VDC/1A	N/A	70Deg C	Yes	No	FIG 1	70	70	110	
	IPS-1A-SL/24V 240V	240VAC	24VDC/1A	N/A	70Deg C	Yes	No	FIG 1	70	70	110	
BATTERY CHARGERS												
	IPS-BC-140W-PB	85 - 240VAC-DC	24V/4A - 12V/2A	32AH	70Deg C	Yes	Yes	FIG 2	85	105	145	
	IPS-BC-140W/IEC	86 - 240VAC-DC	24V/4A - 12V/2A	32AH	70Deg C	Yes	Yes	FIG 2	85	105	145	
DIODE / OR Module	II-051/B	10 - 55VDC	24VDC / 60A	NA	70degC	Yes	Yes	FIG5	82	110	75	
Coming soon - Dec 2016	IPS-BC-360W	89 - 240VAC-DC	24V/12A - 12V/5A	60AH	70Deg C	Yes	Yes	FIG 3	145	285	105	
BATTERY CHARGER / UPS												
	IPS-UPS-100W	92 - 240VAC-DC	12V/4A	24AH	70Deg C	Yes	Yes	FIG 4	85	105	180	
	IPS-UPS-100W/IEC	93 - 240VAC-DC	12V/4A	24AH	70Deg C	Yes	Yes	FIG 4	85	105	180	

Perth and Melbourne

TransTech Electronic Controls Pty Ltd

Perth H.O Design/Manufacturing

Contact: Dale Tunbridge or John King or Rob Carson (Melbourne)

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dale@transtech.com.au or john@transtech.com.au or rob.carson@transtech.com.au

DATA SHEET – Process Automation – Linear PSU.

Subject to change without notice

MODEL:- IPS-1A-SL/xx xxx

Linear Power Supply 120/240V to 12V or 24V at 1AMP

GENERAL DESCRIPTION

The IPS-1A-SL replaces the IPS-1A industrial power supply and is the smallest and most compact in the IPS-...series.

The newly developed IPS-1A-SL is a low cost combined switch-mode/linear power supply utilizing a mains toroidal isolation transformer, thus giving the user low thermal dissipation and high transformer utilization factor. A switch-mode first stage reduces the DC voltage and the second stage linear regulator stage 'slices' off the majority of the switch-mode noise.

Special voltage outputs also available.

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FEATURES

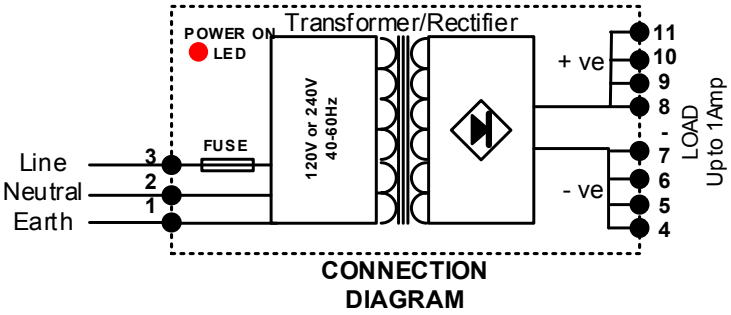
- **Fuse Protected Mains Input**
- **Plug Off Terminals (4 for +ve / 4 for -ve)**
- **Output Healthy LED**
- **1A continuous output**
- **1.25A short term overload capability**
- **Short circuit protected output**
- **Low output noise and ripple**
- **C-tick / CE marking**

TECHNICAL DATA

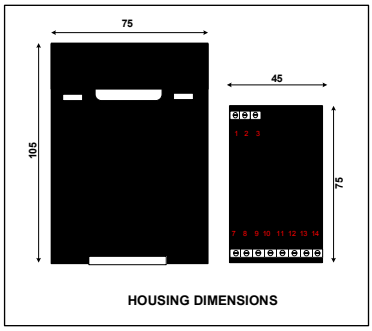
Power Supply (Input)	
120Vac or /240 Vac	+/- 10% (nominal)
Frequency	40 - 60Hz
Power	35VA
Ouput:	
Supply Nominal	24 Vdc @ 1A continuous 24 Vdc @ 1.25A peak
Ripple & Noise	Less than 5mV RMS less than 35mV peak
Hold up time	20mSec @ Full Load
Other outputs	5Vdc, 12Vdc, 15Vdc

GENERAL SPECIFICATION

Overall Efficiency	73% or better
Isolation (Input/Output)	4kV rms (VDE 0550 and BS415 Class 2)
Operating Temp	0 to 60 Deg C
Storeage Temp	-25 to 60 Deg C
Mounting Style	DIN Rail
Terminals	Self-opening 2.5mm/12AWG (plug on/off)
Housing Material	KRILEN
Dimensions	105mm X 45mm X 75mm
Weight	700 grams



CONNECTION DIAGRAM



HOUSING DIMENSIONS

DATA SHEET

Subject to change without notice

MODEL:- IPS-BC-140W-PB

Industrial Power Supply / Battery Charger

TECHNICAL DATA

Power Supply (Input)	85 – 265VAC /120 - 390VDC
Frequency	40 - 60Hz
Power	< 175VA

Power Factor correcting, controlled Start-Up Input Stage (Designed to requirements of EN61000-3-2).
Two Stage EMI line filter and transient protection is standard.

Inputs
1. The test input switches load to the batteries, by monitoring the battery voltage the health of batteries can be determined.
2. An NTC with lead is included to allow for Battery Temperature Monitoring

Outputs (Operated as Power Supply)

Output 1 (< 3 amps)	27.6V nominal (no Battery)
Output 2 (< 3 amps)	13.8V nominal (no Battery)
Combined Ave Output	≤ 140W at 70C (99% DF)
Combined Peak Output	≤ 165W (3secs. & 1% DF)

Outputs (Operated as Battery Charger)

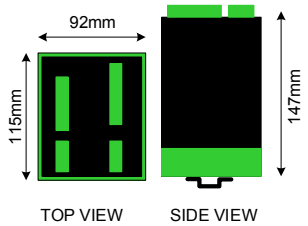
Battery '1'	Limited to 13.8V nominal
Battery '2'	Limited to 13.8V nominal
Charge Temp. Coeff.	-4mV/C per cell.
Charge Current:	2.5A nominal
	(suitable for from 7AH to 24AH batteries).
Deep discharge	Automatic load disconnect.

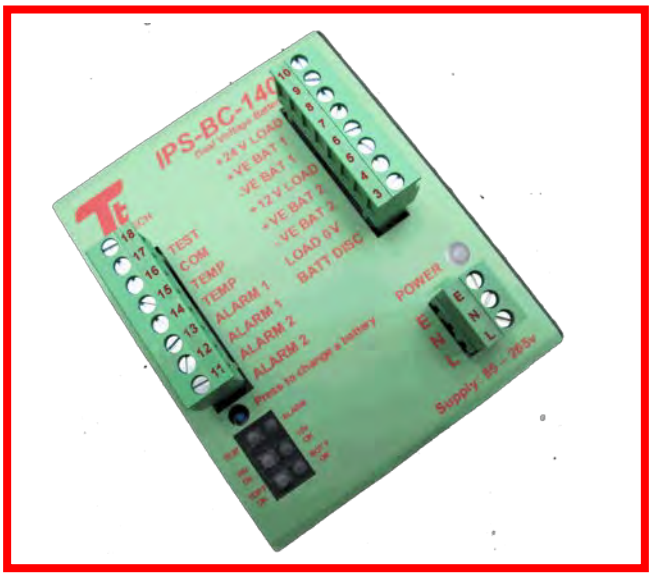
Alarm Outputs
AL1 = Battery or Internal Fault
AL2 = Supply Failure

The unique charger design prevents boiling of batteries under nearly all conditions.

GENERAL SPECIFICATION

Efficiency	80% -95%
PFC (required)	to EN61000-3-2.
Emissions	to EN61000-4-6
Immunity ESD	to EN61000-4-2
Immunity RF fields	to EN61000-4-3
Isolation (Input/Output)	4kV rms (VDE 0550 andBS4 15 Class 2)
Operating Temp	0 to 70 Deg C
Storage Temp	-25 to 85 Deg C
Reliability (estimated)	50,000 hours at 25C as per MIL-HDBK-217 or equiv.
Mounting Style	DIN mount
Terminals	Self-opening 5mm/12AWG (plug on/off)
Housing Material	Mild Steel & Polycarbonate
Ventilation	Natural
Dimensions	92mmX115mmX147mm (W x D x H)
Weight	1.0 kg





GENERAL DESCRIPTION

The **IPS-BC-140W** is a uniquely designed combined industrial power supply / battery charger, purpose built to supply instrument installations with both 12v and 24v requirements and sealed lead-acid backup batteries.
To comply with the requirements of **EN61000-3-2** for electronic equipment consuming more than 75W, the input stage is Power Factor Corrected.
The **IPS-BC-140W** may be operated without batteries, in which case the 12V and 24V outputs will approach 13.8V and 27.6V respectively.
When the **IPS-BC-140W** is operated as a battery charger the unique control circuitry prevents either battery being overcharged (boiled). This unique feature can either sink or source current, rising or falling automatically depending upon the state of charge of either battery.
In the event of loss of ACV, or an internal fault an alarm contact will close.

FEATURES:

- **Power Factor Correcting (automatic)**
- **Auto disconnect on reverse battery volts**
- **Voltage measurement nominally 0.3%**
- **Current Limited Outputs**
- **Designed to provide 140Watts @ 70deg C**
- **Plug Off Terminals with engraved numbers**
- **Output Healthy LED's (ACV, DCV, F1, F2, ALARM,TEST)**
- **Complies with EN61000**
- **Remote Test Input with Contact output (Forces a low VDC to test battery condition)**
- **Supply Loss Alarm Output**
- **C-TICK / CE Markings**
- **(Independently Tested to & Passed CSPIR 11)**

DATA SHEET – Power Supplies

Subject to change without notice

MODEL:- IPS-BC-360W

Transtech Battery Charger / Power Supply
360Watt with Universal input 85-265Vac 12vdc + 24vdc 10Amp Output

GENERAL DESCRIPTION

The **IPS-BC-360W** is a uniquely designed combined industrial power supply / battery charger, designed to supply instrument installations with both 12v and 24v and charge sealed lead-acid backup batteries.
To comply with the requirements of **EN61000-3-2** for electronic equipment consuming more than 75W, the input stage is Power Factor Corrected.
The **IPS-BC-360W** may be operated without batteries, in which case the 12V and 24V outputs will approach 13.8V and 27.6V respectively.
When the **IPS-BC-360W** is operated as a battery charger the unique control circuitry prevents either battery being overcharged (boiled). This unique feature can either sink or source current, rising or falling automatically depending upon the state of charge of either battery. In the event of loss of ACV, or an internal fault an alarm contact will close.

FEATURES

- Power Factor Correcting (automatic)
- Unique "automatic sink or source" charging of batteries.
- Auto disconnect on reverse battery volts
- Voltage measurement nominally 0.3%
- Current Limited Outputs
- Plug Off Terminals with engraved numbers
  Monitoring LED Panel for:-
- ACV
- DCV
- Fuse 1
- Fuse 2
- ALARM
- TEST
- FAN
- OVER TEMP
- Complies with EN61000
- Remote Test Input with Contact output
  (Forces a low VDC to test battery condition)
- Supply Loss Alarm Output
- C-tick / CE marking
- (Designed to Pass CSPIR 11)

TECHNICAL DATA

Power Supply (Input)	85 – 265VAC /120 - 390VDC
Frequency	40 - 60Hz
Power	< 465VA

Power Factor correcting, controlled Start-Up Input Stage (Designed to requirements of EN61000). Two Stage EMI line filter and transient protection is standard.

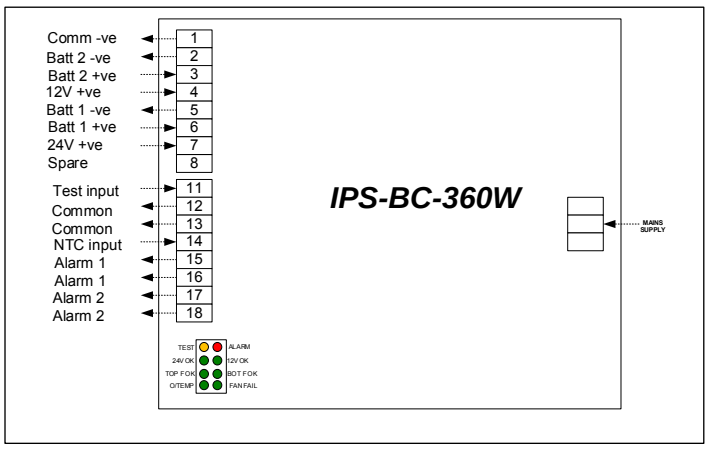
Inputs
1. The test input switches load to the batteries, by monitoring the battery voltage the health of batteries can be determined from a remote location.
2. An NTC with lead is included to allow for Battery Temperature Monitoring and Compensation.

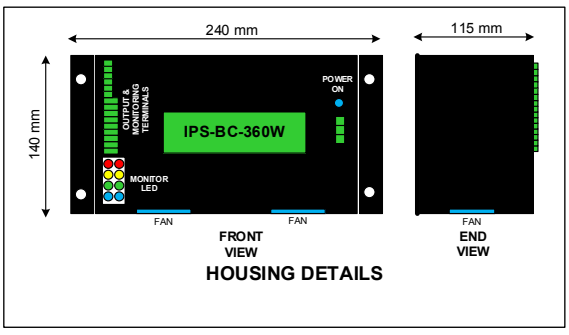
Outputs (Operated as Power Supply)	
Output 1 (< 13 amps)	27.6V nominal (no Battery)
Output 2 (< 10 amps)	13.8V nominal (no Battery)
Combined Ave Output	≤ 365W at 70C (99% DF)
Combined Peak Output	≤ 400W (3secs. & 1% DF)
Outputs (Operated as Battery Charger)	
Battery '1'	Limited to 13.8V nominal
Battery '2'	Limited to 13.8V nominal
Charge Temp. Coeff.	-4mV/C per cell (-48mV nominal).
Charge Current:	2 to 10A Factory Set **(standard is set for 2 x 40AH batteries).**
Deep discharge	Automatic load disconnect.

Alarm Outputs
AL1 = Battery or Internal Fault
AL2 = Supply Failure

GENERAL SPECIFICATION

Efficiency	>83%
PFC (required for AUS)	to EN61000-3-2.
Emissions	to EN61000-4-6
Immunity ESD	to EN61000-4-2
Immunity RF fields	to EN61000-4-3
Isolation	(Input/Output) 4kV rms (VDE 0550 and BS4 15 Class 2)
Operating Temp	0 to 70 Deg C
Temperature Rise	Maximum 50 Deg C above ambient
Storage Temp	-25 to 85 Deg C
Reliability (estimated)	50,000 hours at 25C as per MIL-HDBK-217 or equiv.
Mounting Style	DIN mount
Terminals	Self-opening 5mm/12AWG (plug on/off)
Housing Material	Mild Steel & Polycarbonate
Ventilation	Fan forced above 50 deg C
Dimensions	240mmX145mmX140mm
Clearances	Top = 75mm, Bottom = 50mm, Ends = 25mm
Weight	1.6 kg





DESIGNED & MANUFACTURED by: Transtech Electronic Controls Pty Ltd Perth W.A. ABN: 21 070 629 499
Design changes may occur in the interests of product performance & development **E&OE**

DATA SHEET

Subject to change without notice

MODEL :- IPS-UPS-100W

Industrial Power Supply / Battery Charger

TECHNICAL DATA

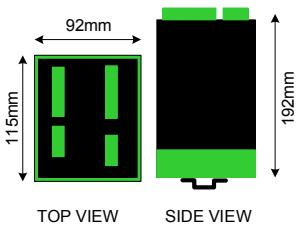
Power Supply (Input) 85 – 265VAC /120 - 390VDC
Frequency 40 - 60Hz
Power < 125VA
Power Factor correcting, controlled Start-Up Input Stage (Designed to requirements of EN61000).
Two Stage EMI line filter and transient protection is standard.
Inputs
1. The test input switches load to the battery, by monitoring the battery voltage the health of the battery can be determined.

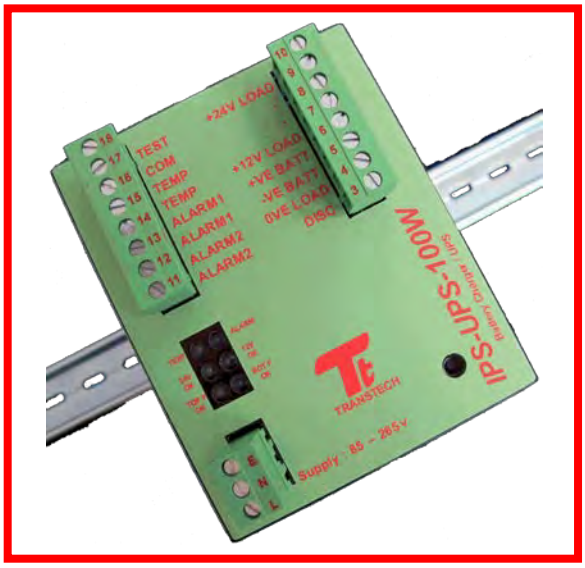
Outputs (A.C. Powered)
Output 1 (< 3 amps) 24.7V nominal
Output 2 (< 3 amps) 13.8V (max)
Combined Ave Output ≤ 100W at 70C (99% DF)
Combined Peak Output ≤ 115W (3secs. & 1% DF)
Battery Limited to 13.8V nominal
Charge Temp. Coeff. -4mV/C per cell.
Charge Current: 800mA nominal
(suitable for from 7AH to 10AH batteries).
Deep discharge Automatic load disconnect.
Outputs (When Operated as UPS - no A.C. power.)
Output 1 (2.5A) 24.4V nominal
Output 2 (minimal) Battery Voltage (12V nom.)
Combined Ave Output 65W at 70C (99% DF)

Alarm Outputs
AL1 = Battery or Internal Fault
AL2 = Supply Failure
The unique charger design prevents boiling of batteries under nearly all conditions.

GENERAL SPECIFICATION

Efficiency	80% -95%
PFC (required)	to EN61000.
Emissions	to EN61000
Immunity ESD	to EN61000
Immunity RF fields to	EN61000
Isolation (Input/Output)	4kV rms (VDE 0550 and BS4 15 Class 2)
Operating Temp	0 to 70 Deg C
Storage Temp	-25 to 85 Deg C
Reliability (estimated)	50,000 hours at 25C as per MIL-HDBK-217 or equiv.
Mounting Style	DIN mount
Terminals	Self-opening 5mm/12AWG (plug on/off)
Housing Material	Mild Steel & Polycarbonate
Ventilation	Natural
Dimensions (w x h x d)	92mmX115mmX192mm (W x D x H)
Weight	1.0 kg





GENERAL DESCRIPTION

The **IPS-UPS-100W** is a uniquely designed combined Un-interruptible Power Supply (UPS) / battery charger; purpose built to supply instrument installations with 24V from a single sealed 12V lead-acid backup battery.
To comply with the requirements of **EN61000** for electronic equipment consuming more than 75W, the input stage is Power Factor Corrected.
When the **IPS-UPS-100W** is operated as a battery charger the unique control circuitry prevents the battery being overcharged (boiled). This unique feature can either sink or source current, rising or falling automatically depending upon the state of charge of the battery.
In the event of loss of ACV, the 24V output will be continue to be supplied via a boost converter operating from the 12V battery.
Upon loss of ACV or an internal fault an alarm contact will close.

FEATURES:

- **Power Factor Correcting (automatic)**
- **Auto disconnect on reverse battery volts**
- **Voltage measurement nominally 0.3%**
- **Current Limited Outputs**
- **Plug Off Terminals with engraved numbers**
- **Output Healthy LED's (ACV, DCV, F1, F2, ALARM,TEST)**
- **Complies with EN61000**
- **Remote Test Input with Contact output (Forces a low VDC to test battery condition)**
- **Supply Loss Alarm Output**
- **C-tick / CE marking**

DATA SHEET – Process Automation – Industrial I/F

Subject to change without notice

MODEL:- II-051

30AMP Diode-OR Module for dual redundant Power Supplies

GENERAL DESCRIPTION

The II-051 Diode-OR, using power MOSFET technology, is a high efficiency alternative to the conventional Schottky diode based modules. The very low on resistance of the MOSFETs limits the typical dissipation to typically 1.25W at 30A and less than 1.65W (worst case) at an ambient of 60C.
The unit can withstand 180A current surges for 10ms.
The II-051 requires a 0V reference for correct operation (from the input power supplies). It is essential that this 0V reference be connected otherwise the unit will dissipate an excessive and damaging amount of heat.

The II-051 has four (4) LED indicators:- Input 1 OK | Input 2 OK | Output Available | Internal Fault

The Internal Fault activates an alarm relay.

FEATURES

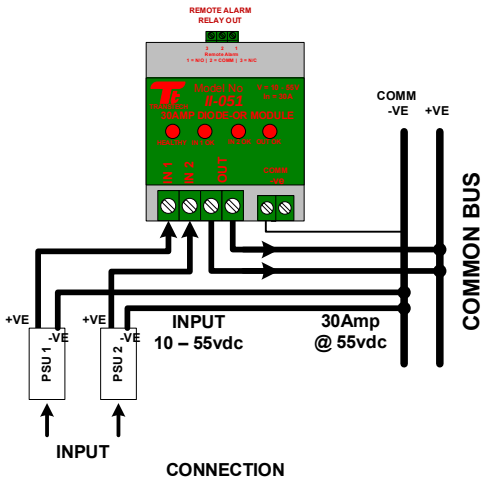
- **Wide operating supply voltage range 10-55V.**
- **Very low forward volt drop.**
- **Very low heat dissipation at 30A per input.**
- **Very low reverse leakage current (< 100uA).**
- **Wide ambient operating temperature range.**
- **Fault alarm relay with C/O contacts.**

TECHNICAL DATA

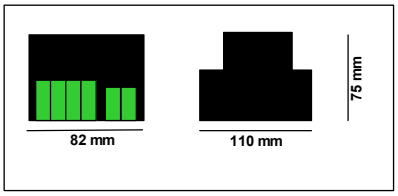
Input Voltage	+10 to 55V (dc + ac peak).
Input Current (per input)	30A maximum continuous 60A max short term overload
Leakage Current:	Typically <100uA at 60C.
Output Current:	55A continuous 75A short term overload
Other Outputs:	LED Indicators showing
Input 1 OK	**'LED ON'** if supply #1 is greater than 9.6V
Input 2 OK	**'LED ON'** if supply #2 is greater than 9.6V
Output Available	**'LED ON'** when output is available
Healthy	**'LED ON'** and relay is energised if both MOSFETs OK
Internal Fault	Healthy LED **'OFF'** relay is de-energised and drops out.

GENERAL SPECIFICATION

Input Voltage	10-55V dc + ac peak
Leakage Current	<100uA at 60C
Reference Current	Less than 11mA at 24V
Controls	Nil
Indicators	4 x Red LEDS
Operating Temp	0 to 65 Deg C
Storage Temp	0 to 85 Deg C
Terminals (Current)	Self-opening 16mm
Terminals (Reference)	Self-opening 4mm
Housing material	Powder Coated Mild Steel
Mounting Style	DIN Rail
Dimensions	56mm x 110mm x 70mm
Weight	250 grams.



CONNECTION



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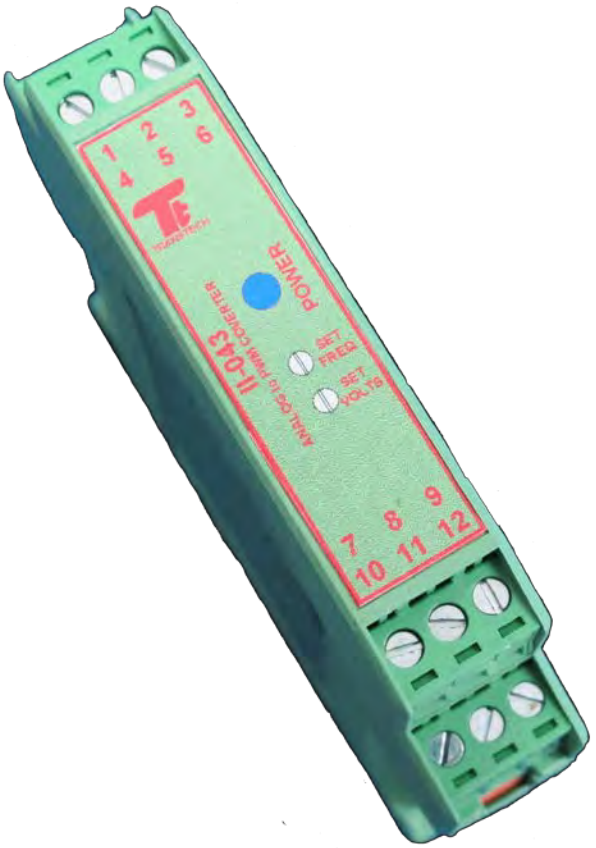
TRANSTECH

SECTION 7

Transtech II Module Range



TYPICAL MODELS:

PAM-01/B, PAM-02, II-041/A, II-055/B

DATA SHEET – Process Automation – Conveyor Controls

Subject to change without notice

PAM-01/B 24VDC, 110VAC, 240VAC

Pre-Start Alarm Monitor for Audible Devices

GENERAL DESCRIPTION

The Australian Standard for Conveyor requirements (AS1755) requires that unless regular periodic inspections of the pre-start Alarm (PSA) for conveyor installations are carried out the pre-start alarms have to be monitored.

The PAM-01/B Pre-start Alarm Monitor has an increased output capacity and is available with the optional delay off. When installed into the circuit of the PSA sounder the PAM-01/B monitors the load current and supply voltage to ensure they are within the normal operating parameters of the device. If both the voltage and current levels are in the healthy condition the system is enabled. Both current and voltage levels have external adjustment points with individual healthy indication.

The system healthy relay should be connected to a supervisory system that will alarm and prevent the conveyor from starting in the event of a PSA failure.

FEATURES

- Matching Supply voltage to Siren
- Output current up to 3 Amps (fused)
- Externally Accessible Set Points
- System Healthy Indication
- Voltage Healthy Indication
- Current Healthy Indication
- OFF time delay - optional (factory set)
- Fail Safe System
- Very small footprint area.

Power Supply

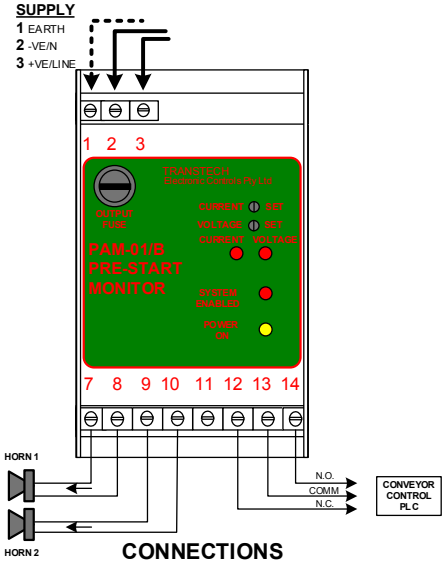
Supply nominal	24VDC +/- 20% **WARNING: DO NOT ALLOW UNIT TO RUN BELOW 18Vdc**
	110VAC +/- 15%
	240VAC +/- 15%
Speaker/Siren Load	3 Amps maximum (factory set)
Total output load	3 Amp Type T fuse

Controls and Indication

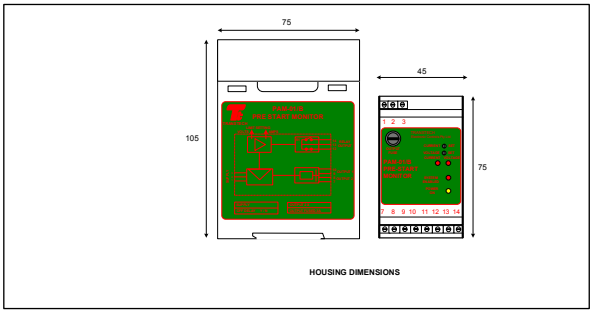
Power	LED (Blue)
Voltage Trip	Factory set to 80% of Nominal
Voltage healthy	LED indication
Current Trip	Factory set to 80% of Nominal
Current healthy	LED indication
System enabled	LED (relay energized)
Outputs 1 & 2	Supply voltage to speaker/siren
Output	Relay SPCO 1 Amp 240V A.C.
Output off delay **(When installed)**	Optional and factory set
	- 2.6 seconds (minimum)
	- 5.8 seconds (typical)
	- Other timings on request.

GENERAL SPECIFICATION

Accuracy	5%
Repeatability	1%
Common Mode RR	90dB
Response time	10 to 90% step in 280mSecs
Isolation level (relay)	2500Vrms
Operating Temp	0 to 60 DegC
Storage Temp	0 to 75 DegC
Terminals	Self-opening 2.5mm/12AWG
Housing Material	ABS
Mounting Style	DIN (or G rail with adapter)
Dimensions	105mm X 75mm X 45mm
Weight	120 grams for DC version
	240grams for AC versions



CONNECTIONS



HOUSING DIMENSIONS

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Design changes may occur in the interests of product performance & development **E&OE**

DATA SHEET – Process Automation – Conveyor Controls

Subject to change without notice

PAM-02 24VDC

Pre-Start Alarm Monitor for Audible Devices

GENERAL DESCRIPTION

The PAM-02 joins the switchboard mounted PAM-01/B xx series designed to monitor audible pre-start devices as a requirement of the latest conveyor safety code.It is a field mounted pre-start, audible alarm monitor with special internal circuitry to minimize the unit's sensitivity to both transient mechanical shocks and sounds.

The PAM-02 operates from a dc supply with a nominal supply range of 18V to 30V and input protective devices operate if any input transient exceeds 33V.

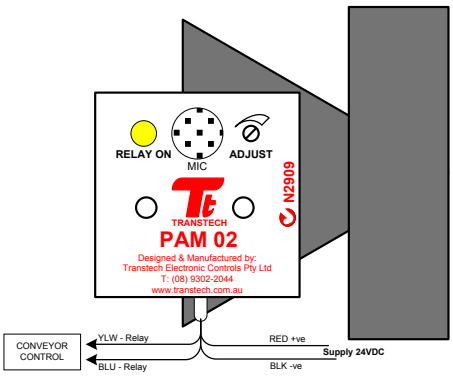
When the PAM-02 unit detects that the ambient Sound Pressure Level has exceeded the set threshold, the LED lights and the relay operates. The use of a high brightness LED ensures that an unambiguous indication is given under all normal ambient lighting conditions.

The PAM-02 has been manufactured as a robust monobloc construction with a protection level of IP67

Note: Care must be exercised so that the protective membrane over the microphone is not damaged.

FEATURES

- Monobloc construction.
- IP67 protection
- Wide operating voltage range
- Input supply transient protection
- Transient input noise filter
- High brightness indicator
- 1 meter leads
- 25 turn threshold adjustment
- Designed and manufactured to ISO 9001



CONNECTIONS

Power Supply

Nominally 24Vdc

Controls and Indication

Voltage rating	Working voltage range 18-30V DC (RED & BLK)
Input Protection	Active above 33V
Sense Element	Electret microphone (Weather-proofed)
Sense Adjust Range	40dB nom. Factory set to 90dB approx.
Sense Adjustment	via 25 turn potentiometer
Ingress Protection	IP67
Indicator	High brightness Red LED
Output	1 SPNO relay (YLW & BLU 500mA @ 50V)

GENERAL SPECIFICATION

Operating Temp	-35 to 70 Deg C
Storage Temp	-55 to 90 Deg C
Housing Material	ABS/Epoxy
Mounting	Via 2 off 5mm fixing holes
Dimensions	(LxDxW) 40mm x 20mm x 40mm nom.
Weight:	55 grams nom.

DATA SHEET – Process Automation – Pulse Divider

Subject to change without notice

MODEL:- II-041/C

Pulse divider Module - Divide by "n"

GENERAL DESCRIPTION

The primary purpose is to divide the frequency of an input pulse train by an arbitrary number between 1 and 9999.

FEATURES

- COMPACT 20mm WIDE HOUSING
- DIN & "G" RAIL MOUNTING
- Divide by "n" functionality
- Output bidirectional – non-polar
- Can emulate PNP or NPN
- Power 'ON' Indicator - Blue

TECHNICAL DATA

Input Supply Voltage:	7-60 VDC (**Pin 3** Common, **Pin 1** +VE)
Nominal Burden:	Less than 11mA at 60VDC and 500kHz.
Output Supply Voltage	5-50 VDC.
Output Current:	400mA between **Pin 5** & **Pin 6** (maximum)
Input Signal:	Between **Pin 3** (common) and **Pin 2** (data)
Input Resistance:	50Ω, 4k7Ω, 100kΩ (switch selectable)
Maximum Input: (**50Ω**):	100mA.
Maximum Input:	60V (peak) into 4k7Ω or 100kΩ.
Minimum Input:	4.5V (peak)
Input Frequency:	1MHz (maximum.
Output Pulse Width :	10ms, 30ms,100ms nominal (switch selectable)
Divide Ratio "n":	1 to 9999 (selectable via 4 decade switches) **Note:** With **"n"** set to zero, the output is '**OFF**'

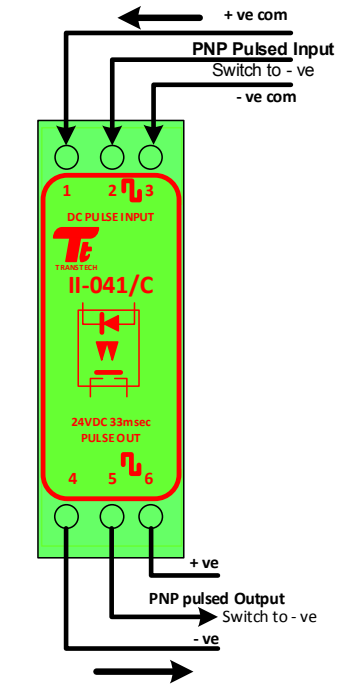
OUTPUT: **Note: The output is isolated from both the input signal and input supply.**

PNP Emulation:	**Pin 4** = supply, **Pin 5** = signal, **Pin 6** = common
NPN Emulation:	**Pin 4** = common, **Pin 5** = signal, **Pin 6** = supply

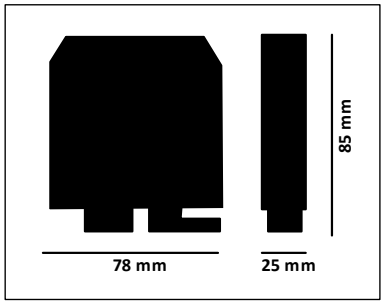
Note: The output Pull-up/Pull-down resistor is connected between Pin 4 and Pin 5, the nominal value is 4k7; other values upon request.

GENERAL SPECIFICATION

Long term drift	Not Applicable
Isolation level	Output is isolated from both signal input and input supply.
Accuracy	Exact
Operating Temp	-40 to 60 deg C
Storage Temp.	-40 to 75 deg C
Terminals	Self-opening 2.5mm^2
Housing Material	KRILEN (plastic)
Dimensions	78mm x 85mm x 25mm
Weight	80 grams



CONNECTION DIAGRAM



DATA SHEET – Process Automation – Modulator

Subject to change without notice

MODEL:- II-044

DC Modulating Module

GENERAL DESCRIPTION

The II-044 is a three-port Modulating Controller that accepts an analogue 0-10Vdc control input.

The II-044 is designed to be used with zero switching solid state relays to give step less control of heater banks. The heat output is proportional to the DCV control input and has a controlled span of between 0.5V to 9.5V.

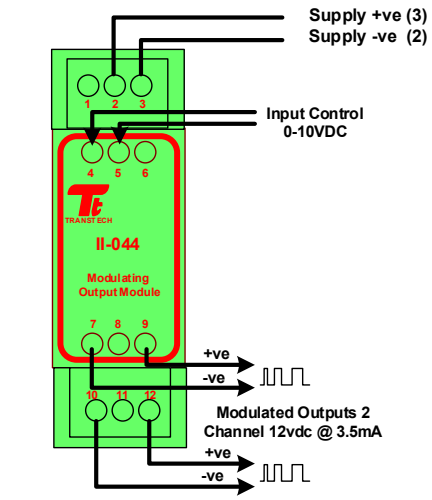
The II-044 output is standard series connected, capable of driving up to three solid state relays per channel with 3.5mA constant current. Optionally the II-044 can be factory set for parallel output connection and drive loads at 10vdc up to 12mA per channel.

FEATURES

- Wide operating supply voltage range 18-36V.
- Input Power less than 1W.
- Accuracy better than 1%.
- Input may be factory ranged for a wide range.
- Operating Temperature Range 0 to 50C.

TECHNICAL DATA

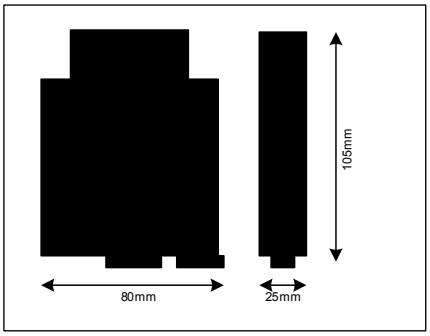
Power Supply:	24Vdc 18-36V ac/dc.
VA Rating	Typically 1W (parallel 1.25W)
Input Signal:	
Analogue	0 – 10Vdc.
Duty Cycle	Zero to 100%
Standard Output (series):	
Modulated	12Vdc @ 3.5mA.
Optional Output (parallel):	
Modulated	10vdc @ 12mA (Factory Set)



CONNECTION DIAGRAM

GENERAL SPECIFICATION

Accuracy	1% of span
Linearity	1% of span
Repeatability	1% over 10,000 hrs
Isolation Level	500Vrms between PSU and all other ports.
Controls	None.
Indicator	None
Operating Temp	0 to 50 Deg C
Storage Temp	0 to 65 Deg C
Terminals	Self-opening 2.5mm/12AWG Housing materialKRILEN
Mounting Style	DIN & G Rail
Dimensions	79mmX106mmX27.5mm
Weight	140 grams



DATA SHEET – Process Automation – Interfaces

Subject to change without notice

MODEL:- II-055

24V Powered Serial to Analog Converter

GENERAL DESCRIPTION

The II-055 is a powered converter that accepts serial communication from a computer or PLC and converts the signal into an analog output. The II-055 offers up to 1500V isolation between ports. The input power for the II-055 is not polarity sensitive. The II-055 is factory calibrated and there are no user accessible adjustments.

FEATURES

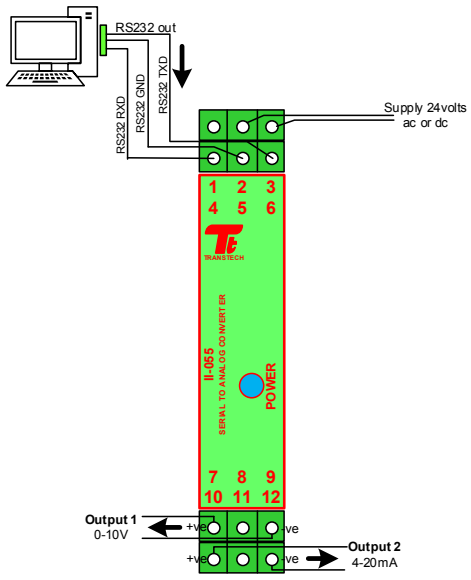
- Wide operating supply range 10-72V
- True three (3) port isolation
- Port-port creepage distance ≥ 2.5mm
- No user adjustment required.
- Galvanic Isolation
- DIN rail mounting
- Very Small footprint of 17.5mm width
- Simultaneous Voltage and Current outputs

TECHNICAL DATA

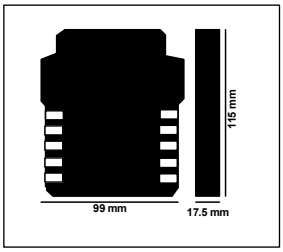
Supply Voltage	24Vdc nominal (10V to 72V actual)
Supply Power	250mW plus loop power
Three Port Isolation	1500V nominal
Output Voltage Ranges	0 to 5V, 0 to 10V, ±5V, ±10V, factory settable
Output Current Ranges	4 to 20mA, 0 to 20mA, 0 to 24mA, factory settable
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Power Indicator	Blue LED

GENERAL SPECIFICATION

Supply Voltage	10 to 72Vdc
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	1500V DC
Creepage distance	≥2.5mm (port to port)
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 10ms (10 to 90%)
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm^2
Housing Material	KRILEN
Dimensions	99mm X 115mm X 17.5mm
Weight	110 grams



SCHEMATIC DIAGRAM



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