

Techtrol Signal Convertor - 'TSC'

It is a microcontroller based signal convertor used for converting input signals to MODBUS RTU RS485 to enable it as an interface with the 'HOST'. This host being master could be PLC/SCADA or IIoT Gateway. Two types of Techtrol signal convertors are available as under.

1. **TSC-D** is used in conjunction with any switch having potential free or PNP outputs.
2. **TSC-A** is used in conjunction with 2 wire or 4 wire transmitter of any parameter having 4-20mA analog output.

Salient Features

- Support Modbus RTU Communication Protocol
- Four isolated Switching Inputs for TSC-D
- Isolated loop powered input (4-20mA) for TSC-A
- Isolated RS485 Output
- Isolated Auxiliary 24 VDC Supply for X'mitter or Switch
- Easy Selection of Slave ID & Baud Rate thru DIP Switch



ABS IP65 Enclosure
TSC- A or D



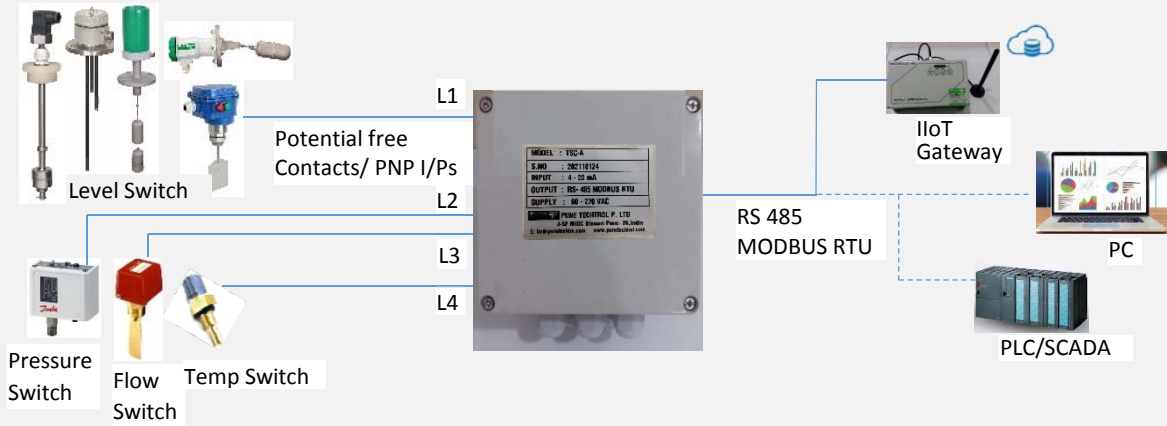
Cast Al Ex- d IIB Enclosure
TSC- D or A

Specifications

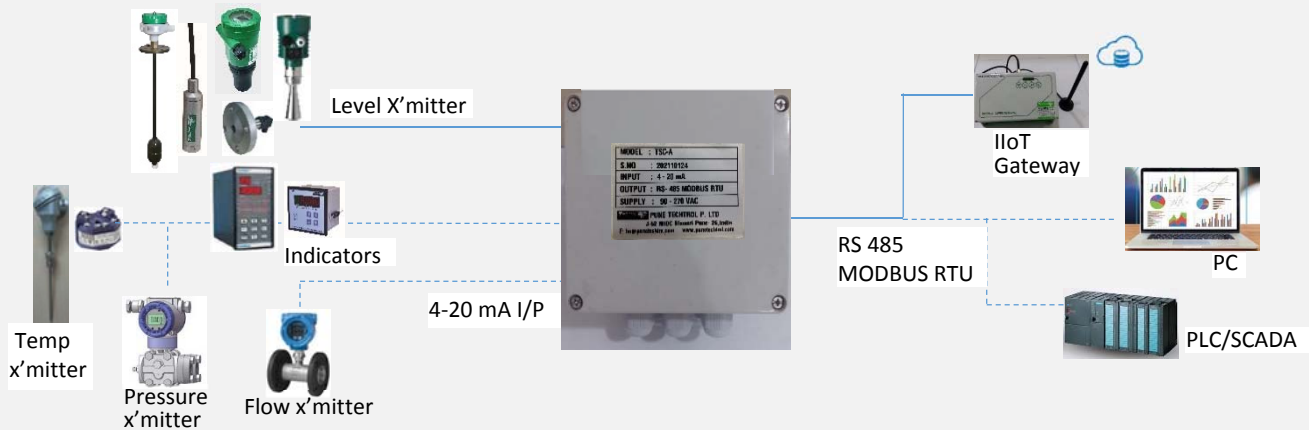
Model	TSC-D	TSC-A
Circuitry	Microcontroller based	
Power Supply	90 to 270 VAC or 24 VDC ± 10 %	
Polarity Protection	Provided for 24 VDC Power Supply	
Auxiliary O/P	24 VDC @ 50 mA (isolated)	
No of Inputs	Four	Single
Input	Digital (Potential free or PNP / Switch contacts)	Analog 4-20 mA DC
Input Logic	'0' Logic – Open Contacts or 0 V PNP I/P '1' Logic – Short Contacts or 24 VDC PNP I/P	NA
Output	RS 485, MODBUS RTU (isolated)	
Power Consumption	250 mA @230 VAC	350 mA @ 230 VAC
Resolution	NA	12 bit (0 to 4095 counts)
Baud Rate	9600, 19200, 38400 selectable through DIP switch	
Slave ID	1 to 7 selectable through DIP switch	
LED Indication	Green LED - Power, Red LEDs (2 nos) - Rx Tx Communication Red LEDs (4 nos) – Digital Inputs	Green LED - Power, Red LEDs (2 nos) - Rx Tx Communication
Enclosure	1. ABS, Wall mounting IP65, (Size - 120 L x 140 W x 100 H mm) 2. Cast Al Ex d Gr IIB, (Size – 150 L x 150 W x 122 H mm)	
Cable entry	PG 11 Cable Gland, Polyamide (WP), ½" NPT Double Compression, Brass (Ex d)	
Terminals	Suitable for 1.5 mm ² wire	
Ambient Temp	0 - 50 °C	
Relative Humidity	< 95 %	

Applications

TSC-D (Digital Inputs)

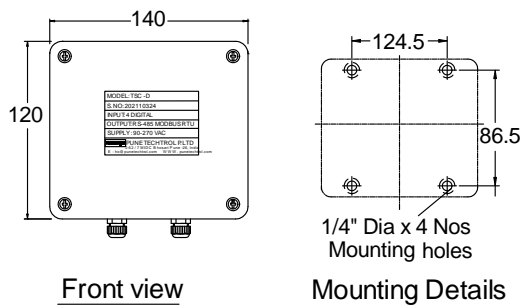


TSC-A (Analog Input)

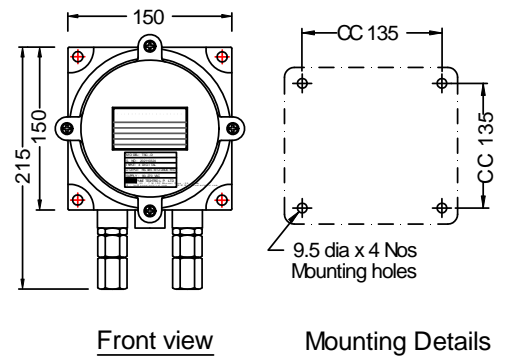


Mounting Details

Wall Mounted (Weather Proof)



Wall Mounted (Ex-proof)



Termination & Wiring

TSC-D (Digital Inputs)

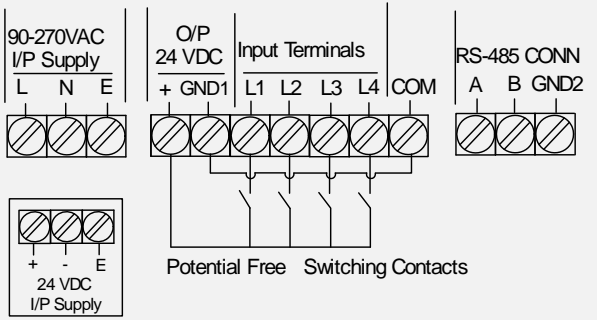


Fig 1: Potential Free Switch I/Ps with Internal 24 VDC

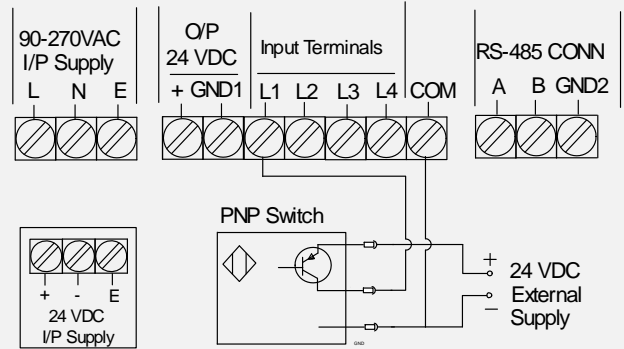


Fig 2: PNP Switch I/Ps with External 24 VDC

TSC-A (Analog Input)

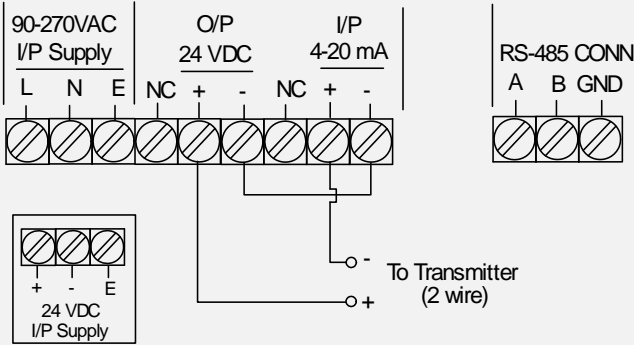


Fig 3: Two wire Transmitter I/P with Internal 24 VDC

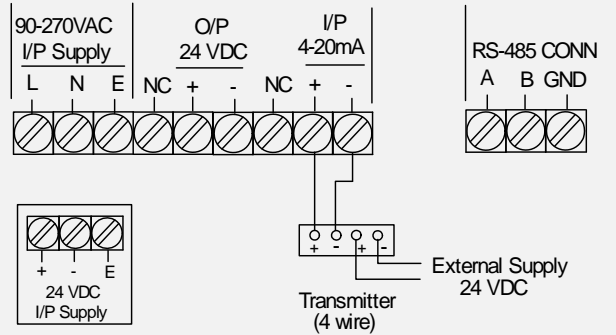


Fig 4: Four wire Transmitter with External 24 VDC

Model Identification

Input

Digital Input ----- D

Analog Input ----- A

Enclosure x Cable Entry

ABS, IP65 Wall Mtd. x PG11 Cable Gland ----- J

Cast Al. Wall Mtd. Ex d Gr IIB x ½" NPT Gland ----- E

Power Supply

90-270 VAC ----- 1

24 VDC ----- 2



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