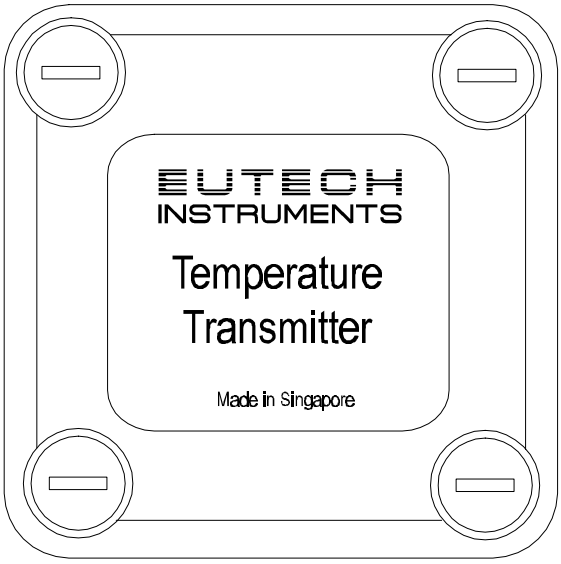
EUTECH INSTRUMENTS

2-Wire Temperature Transmitter

Operating Instructions



1 Preface

Thank you for purchasing the Eutech 2-wire Temperature Transmitter.

This manual serves to explain the correct installation and operations of the XTR Transmitters. Other Transmitters available individually are: pH, ORP (REDOX), Conductivity, Dissolved Oxygen and Temperature.

- EC-PH-XTR;
- EC-ORP-XTR;
- EC-CON-XTR;
- EC-DO-XTR; and
- EC-TEMP-XTR.

The information presented in this manual is subject to change without prior notice, as improvements are made to the product. While Eutech will endeavor to try its best to inform the market, this does not represent a commitment on the part of Eutech Instruments Pte Ltd.

Eutech Instruments does not accept any responsibility for damage or malfunction of the unit due to improper installation or operation of the Transmitter.

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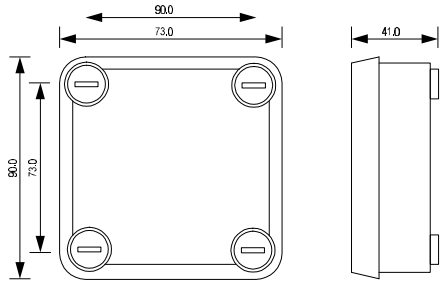
2 Introduction

The Transmitter is used for the continuous measurement of pH, ORP (REDOX), Conductivity, Dissolved Oxygen or Temperature, in conjunction with an appropriate sensor. Data output is via 4-20 mA current output.

The Transmitter is housed in a IP65 enclosure, with openings for input and 4-20mA output.

3 Diagram and Dimensions (in mm)



4 Installation

Operating with one or several Transmitters:

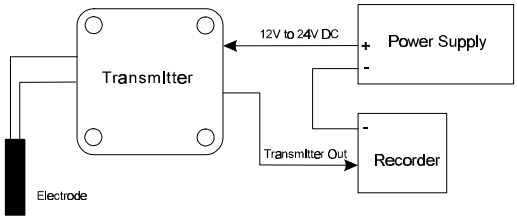


Figure 1 - Operating with 1 Transmitter

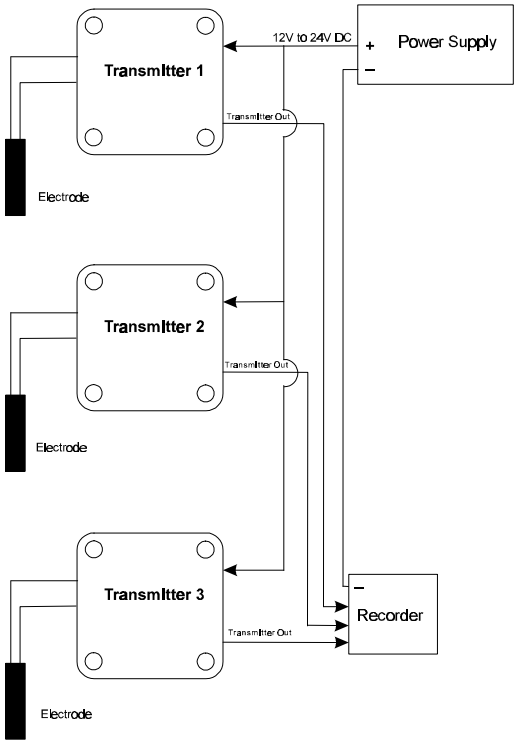
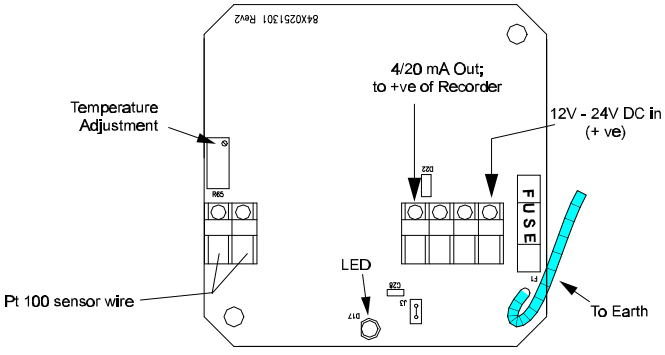


Figure 2 - Operating with several transmitters

5 Electrical Connections



6 Before Calibration

Remove cover of Transmitter and ensure that electrode is correctly connected as above. Connect Amp meter to the 4/20mA output of Transmitter (Appendix 1).

7 Temperature Transmitter Calibration

1) Immerse Temperature probe in water bath at varying temperatures and observe Amp meter display;
2) Amp meter should read corresponding mA output as follows:
3) In 0oC, the output is 4 mA;
4) In 25oC, the output is 8 mA;
5) In 50oC, the output is 12 mA;
6) In 80oC, the output is 16.8 mA;
7) In 100oC, the output is 20 mA;
8) To calibrate, locate “Temp adjustment” trimmer;
9) Using a fine screwdriver, slowly turn trimmer till Amp meter reads correct current output;

NB: For other Temperature values, expected current output is based on:

mA = {(16/100) x Temperature value} + 4mA

8 Specifications

Model	***ECTEMPXTR***
Range	0 TO 100 ^{o}C
Accuracy	± 0.5 ^{o}C
Calibration	1 pt
Input	2-wire Pt 100
Output	4-20 mA
Operating Voltage	DC 12 V to 24 V
Load	100 Ohms max. for 12 V; 600 Ohms max. for 24V
Housing	77 x 77 x 28 mm, field mountable

9 Appendix 1

Connecting Amp Meter for Calibration

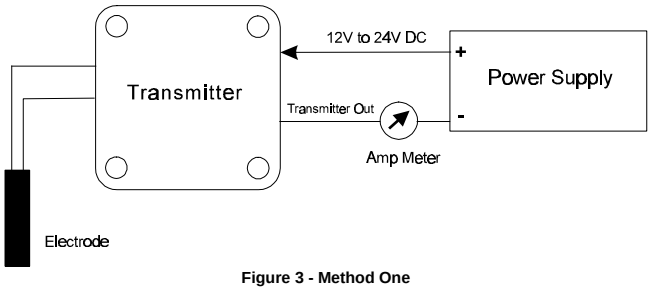


Figure 3 - Method One

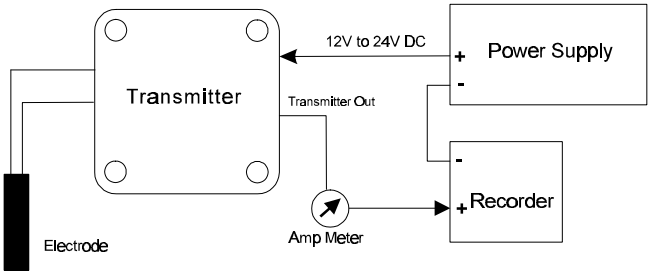


Figure 4 - Method Two

10 Ordering Information

pH

Item	***Cat Code***
pH Transmitter	ECPHXTR
Combination pH Electrode, General, integral 5m cable	ECARTSO05B
Combination pH Electrode, w/PMP, integral 5m cable	ECARGTSO05B

Dissolved Oxygen

Item	***Cat Code***
Dissolved Oxygen Transmitter	ECDOXTR
General Purpose D.O. probe, 0.5 – 40 ppm, Industrial, integral 5m cable	ECDOGEN
General Purpose D.O. probe, 0 – 10 ppm, Industrial, integral 5m cable	ECDOTPII

ORP

Item	***Cat Code***
ORP Transmitter	ECORPXTR
Combination Platinum ORP Electrode, w/PMP, integral 5m cable	ECHTPTTSO05B
Combination Gold ORP Electrode, w/PMP, integral 5m cable	ECHTAUTTSO05B

Conductivity

Item	***Cat Code***
Conductivity Transmitter	ECCONXTR
2-Pin SS,k=1.0, integral 3m cable	ECCONSEN46

Temperature

Item	***Cat Code***
Temperature Transmitter	ECTEMPXTR
Pt 100 probe, SS316	ECPT10001M or ECPT10005M

Power Supply

Item	***Cat Code***
120V Power Supply	EC-120-XTR
220V Power Supply	EC-220-XTR