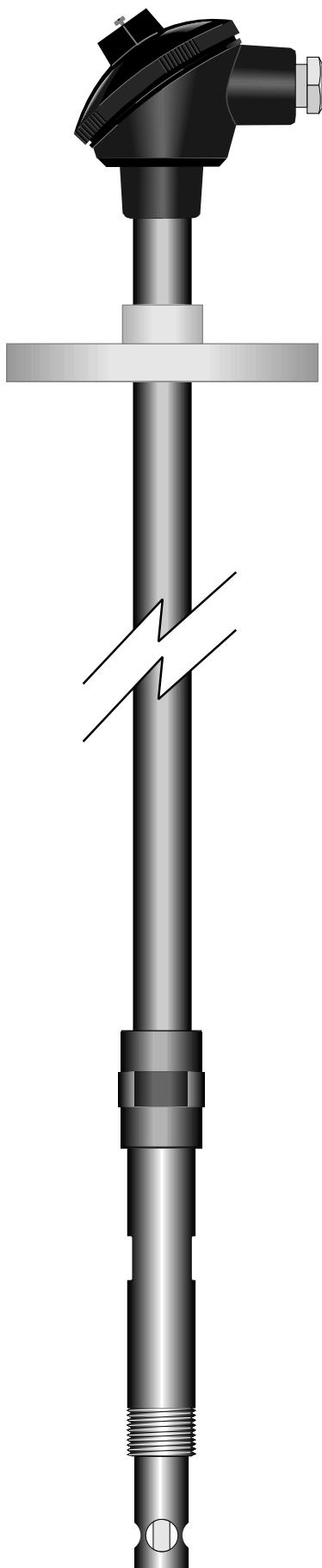


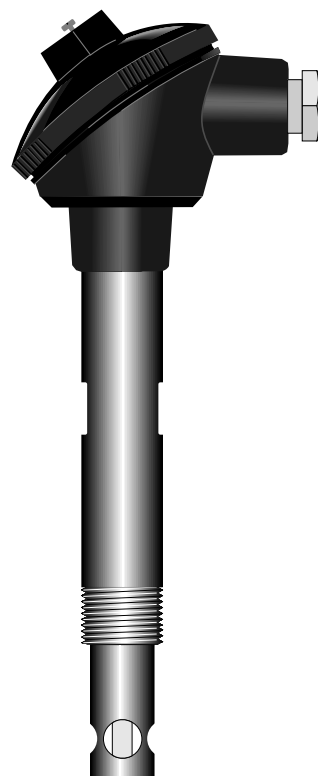
TH3-PH Loop Powered pH and ORP Transmitters

Features

- 2 wire loop powered 4-20mA output
- pH temperature compensated when a Pt1000 temperature sensor is used
- Isolated output eliminates ground loop problems
- Submersible and inline models
- Incorporates your choice of sensor from AIC's wide range of pH and ORP electrodes
- Inbuilt calibration adjustments
- Selection of immersion lengths



Submersible electrode
(example)



Inline electrode
(example)

The TH3-PH pH transmitters provide an electrically isolated, temperature compensated 4-20mA output. The transmitters are ideal for interfacing to displays, PLCs, data loggers and chart recorders. The isolation feature solves many problems associated with ground loops and streaming currents.

The TH3-PH transmitter automatically temperature compensates its 4-20mA output when a Pt1000 temperature sensor is fitted. Inbuilt trimpots allow user calibration of electrode offset (cal) and gain (slope). The standard pH range is adjustable from 0-14 to 4-10 pH. The output for ORP adjustable from 0-600mV to 0-1000mV. Temperature compensation is not required for ORP (Redox) measurement.

The TH3 transmitter is available with a wide choice of electrodes to suit the installation and the chemical medium. For submersion applications a range of immersion lengths is available.

The choice of electrode designs covers a wide spectrum of applications. For example, the AN68, with triple reference junction, POLARIS and DYNAGEN technologies and the TUFFTIP glass bulb, offers superb contamination and electrolyte poisoning resistance. For inline measurements, especially with viscous or particulate bearing solutions, the AN05 electrode with replaceable flat surface cartridge is ideal.

TH3PH-1.2-0

AMALGAMATED INSTRUMENT CO PTY LTD

ACN: 001 589 439

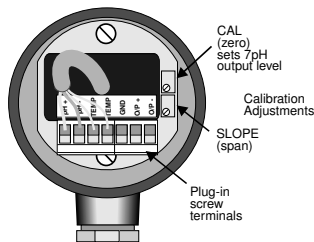
Unit 5, 28 Leighton Place Hornsby
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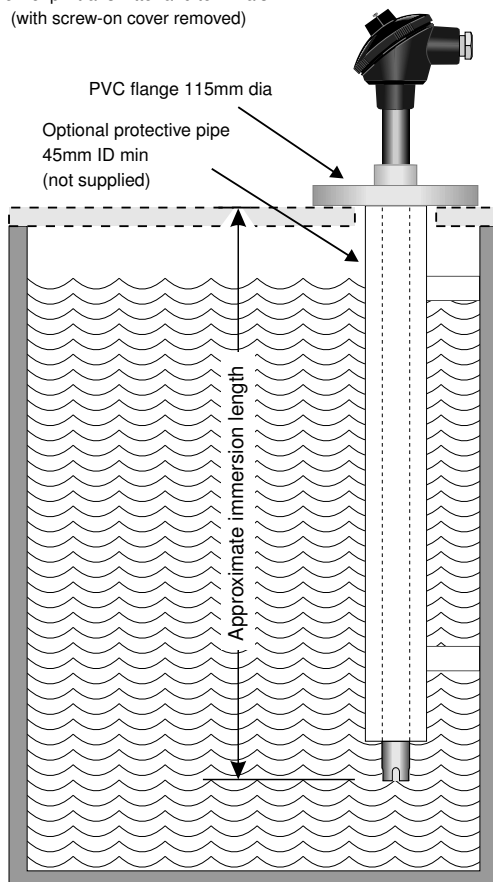
e-mail: sales@aicpl.com.au
Internet: www.aicpl.com.au

Specifications

Inputs	pH electrode where $E^0=7\text{pH}$ or ORP (Redox) electrode. 2 wire Pt1000 temp. sensor for pH temperature compensation (a 1000 Ω resistor is required if no temperature sensor is fitted)
Output:	4-20mA adjustable from 4-10pH to 0-14pH, output must be symmetrical around 7 pH e.g. 2-12pH or 0-600mV to 0-1000mV (ORP)
Accuracy:	0.25% of full scale (when calibrated)
Compensation:	Up to 100°C when Pt1000 sensor used (pH models and not ANPC)
Supply:	Loop powered
Loop supply:	15 to 36VDC
Isolation:	100V DC or RMS
Protection:	Reverse polarity protected
Maximum load:	$R_L = \frac{\text{Supply (V)} - 15}{0.02}$ Ohms
Load effects:	Effect on accuracy on changing load resistance is no greater than 0.1% of full scale
Ambient temp:	0-60°C
Humidity:	5 to 95% non condensing



View of pH transmitter and terminals
(with screw-on cover removed)



Application example - submersible electrode

Order Code

Inline models

TH3-PHANPCN	In-line 1/2" NPT pH electrode
TH3-PHAN05T	In-line 3/4" BSP pH electrode
TH3-PHAN07T	In-line 3/4" BSP pH electrode
TH3-PHAN61T	In-line 3/4" NPT pH electrode
TH3-PHAF61T	In-line 3/4" NPT pH electrode
TH3-PHAN68T	In-line 1" NPT pH electrode

TH3-ORANPCN	In-line 1/2" NPT ORP electrode
TH3-ORAN05N	In-line 3/4" BSP ORP electrode
TH3-ORAN07N	In-line 3/4" BSP ORP electrode
TH3-ORAN61N	In-line 3/4" NPT ORP electrode
TH3-ORAF61N	In-line 3/4" NPT ORP electrode
TH3-ORAN68N	In-line 1" NPT ORP electrode

Submersible models

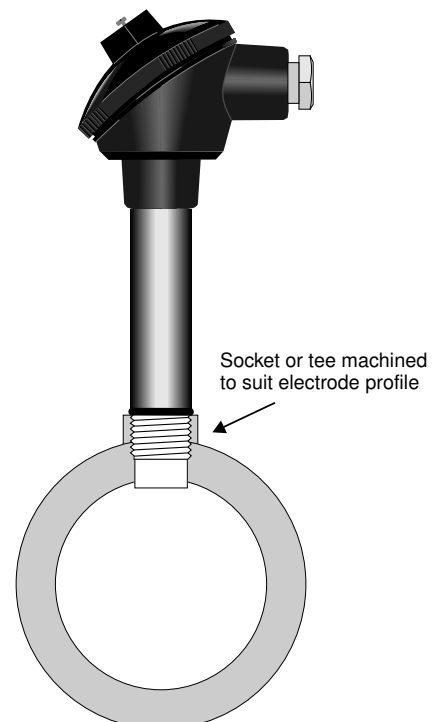
TH3-PHANPCNX.X	In-line 1/2" NPT pH electrode
TH3-PHAN05TX.X	In-line 3/4" BSP pH electrode
TH3-PHAN07TX.X	In-line 3/4" BSP pH electrode
TH3-PHAN61TX.X	In-line 3/4" NPT pH electrode
TH3-PHAF61TX.X	In-line 3/4" NPT pH electrode
TH3-PHAN68TX.X	In-line 1" NPT pH electrode

TH3-ORANPCNX.X	In-line 1/2" NPT ORP electrode
TH3-ORAN05NX.X	In-line 3/4" BSP ORP electrode
TH3-ORAN07NX.X	In-line 3/4" BSP ORP electrode
TH3-ORAN61NX.X	In-line 3/4" NPT ORP electrode
TH3-ORAF61NX.X	In-line 3/4" NPT ORP electrode
TH3-ORAN68NX.X	In-line 1" NPT ORP electrode

(X . X = approx immersion depth in mm between flange and electrode tip - common immersion depths are 0.5m, 1.0m, 1.5m and 2.0m - for other lengths consult supplier)

eg. TH3-PHAN05T1.0 = 1 metre immersion assembly

For more detailed information on each electrode, check with individual data sheet.



Application example - inline electrode