

# pH / Redox Transmitter v5 PHT129

## DESCRIPTION

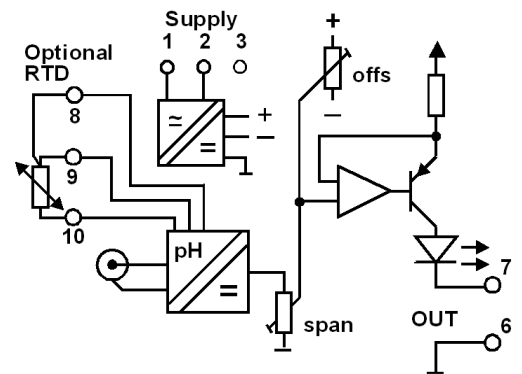
The pHT129 is used with a wide range of ELECTRO CHEMICAL sensors such as pH, ORP (Oxidation-Reduction Potential). Input/output isolation is now standard to avoid ground loop problems. As the electro chemical probe input impedance is greater than  $10^{12}\Omega$  it is important that shielded cable is used. A separate optional input allows connection of a Pt100 temperature sensor for automatic temperature compensation. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. Special requirements for input/output response time variation can be accommodated by optional "customised response". The output signal level is indicated by a green LED on front of the module, giving a clear indication of module function, signal presence and loop condition for current outputs. Reverse or direct action are factory configured. Various power supply choices are available ranging from 240Vac down to 8Vdc all featuring dual outputs for power isolation. Surge protection for power supply and input is standard with all APCS modules.



## General Specifications

Size:	52W x 70H x 110D (mm).
Housing material:	ABS.
Mounting:	DIN-Rail, gear plate.
Supply and output termination:	Screw terminals.
Protection class:	IP40.
Weight:	0.300 kg.
Output loop drive:	20mA into 0 - 900 $\Omega$ . 50mA into 0 - 360 $\Omega$ .
Output load change effect:	Less than 0.2% up to max. load.
Operating temperature range:	0 - 60°C.
Storage temperature range:	-20...+70°C.
Input impedance:	$10^{12}\Omega$ (DC).
Temperature correction:	within 0.8% of span (0 - 100°C), Pt100/2/3-wire (Optional)
Combined linearity and drift error:	0.5% of span
Front 'OFFS' adjust:	$\pm 20$ typical.
Front 'SPAN' adjust:	$\pm 20$ typical.
Signal termination:	Shielded BNC connector on front for the electrode.
Electrode type:	Measurement and reference combined (Standard). Measurement and reference separate, consult factory for ordering, connection and pricing.
Input/output isolation:	>2kVrms.
Power requirements:	3W.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1)

## Block Diagram



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

### TYPE NO. DESIGNATION

#### Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc).
- \*) 3 = 16-48Vac 50/60Hz (10-60Vdc)
- \*) 6 = 8 - 60Vdc.
- \*) 9 = Other (Specify).

#### Input:

- 01 = 0 - 14pH.
- 02 = 2 - 12pH.
- 03 = 4 - 10pH.
- 04 = 5 - 9pH.
- 05 = 6 - 8pH.
- 06 = 6.5 - 7.5pH.
- \*) 09 = Other pH (Specify).
- 11 = 0 - 1000mV redox (ORP).
- \*) 12 = Other redox (ORP) (Specify).
- 13 = Selective ion electrode.

#### Output:

- 4 = Link selectable specify range from table below (4 – 20mA is default setting).
- \*) 5 = 0 - 50mA (360Ω max).
- \*) 6 = 10 - 50mA (360Ω max).
- \*) 9 = Other (Specify).

#### Action:

- 1 = Direct.
- 2 = Reverse.

#### Temperature Compensation:

- 0 = None
- \*) 1 = Pt100 2/3-wire.

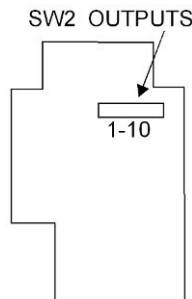
#### Options:

- 0 = None.
- \*) 1 = Customised response time (Specify).
- \*) 2 = Wide Span & Offset adjustments 50%.
- \*) 9 = Other (Specify).

\*) = Price Extra.

### Output Range selection

- 1) Disconnect power to unit.
- 2) Remove terminal covers.
- 3) Un-clip housing lid and withdraw unit from housing.
- 4) Set the coding plugs as required.
- 5) Reassemble unit and connect power.
- 6) Adjust SPAN and OFFS pots to recalibrate.
- 7) Change the label information to the new input/output values.

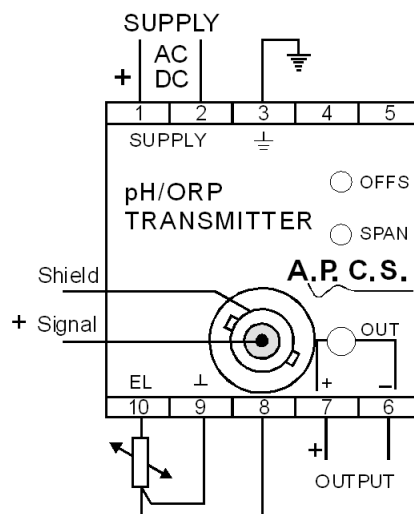


### Output Selection – SW2

Factory default us 4-20mA

Output	1	2	3	4	5	6	7	8	9	10
4-20mA	X	X								
0-20mA					X					
0-10mA			X							
0-1mA				X						
0-1V					X				X	
0-2V					X					X
0-5V					X			X		
1-5V	X	X						X		
0-10V					X		X			

### Connection



Optional  
Pt100 3-wire input  
Join 8 & 9 for 2-wire

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