

pH CONTROLLER & TRANSMITTER

Model : pH 600 - 1



INTRODUCTION

The pH 600 - 1 series of pH Controller and Transmitter provides a reliable method of Monitoring, Controlling & Transmitting 4 - 20mA / RS 485 MODBUS RTU communication for interfacing to PLC, Data logger, HMI, etc.,. This product is suitable to measure pH in water treatment, Electrolytic water cleaning, etc., in chemical industries, food process, waste water treatment, electroplating industries, textile industries & neutralization process, etc., This pH Controller & Transmitter can be measured using industrial combined pH sensors, temperature can be measured using temperature sensor. This pH Controller & Transmitter has many user friendly and safety features which are as follows.

APPLICATIONS

- | | |
|---|--|
| ☐ Drinking water | ☐ Pharmaceutical |
| ☐ RO Water Treatment | ☐ Plating |
| ☐ Sewage water | ☐ Healthcare |
| ☐ Food industries | ☐ High temperature fermenter, etc., |

FEATURES

- ✓ Economical, easy to calibrate and setup using Front key
- ✓ Wide range from -2 to 16 pH
- ✓ High accuracy
- ✓ Programmable auto/manual temperature compensation
- ✓ Optional isolated RS 485 communication with MODBUS RTU protocol
- ✓ Optional galvanically isolated 4 – 20mA retransmission output
- ✓ Very high output impedance $>10^{12}$ Ohms
- ✓ User selectable automatic and manual calibration
- ✓ User selectable 2 or 3 point buffer calibration
- ✓ 2 relay outputs with configurable individual H/L setting with 6 relay status
- ✓ Optional audible inbuilt buzzer output with front key reset
- ✓ Universal supply voltage 90 to 270V AC/DC

TECHNICAL SPECIFICATIONS

Model	pH 600-1
Display	4 + 4 Digit 0.5" & 0.39" 7 Seg RED LED Display
Range	-2 to 16 pH
Accuracy	± 0.01 pH ± 1 digit
Resolution	0.01 pH
Input Impedance	$>10^{12}$ Ohms
Temperature sensor	RTD - PT 100 (3 wire)
Temperature Compensation	Manual / Automatic (-20.0 to +150.0°C)
Electrode Input	Combined Electrode with BNC Attachment
Set Point - 1 & 2	Two Set Point with 6 Relay Status Selectable
Calibration / Setpoint	Using Front panel soft touch key
Relay Output	Relay - 1 for Setpoint - 1, Relay - 2 for Setpoint - 2 with 5A Rating
Relay Hysteresis	0 to 5 pH (user adjustable)(only for High & Low control modes)
Relay Cyclic delay	0 to 100 seconds (user adjustable)(only for High & Low control modes)
Alarm Output(optional)	Inbuilt audible buzzer with front key reset
Optional Re. Tx. output	Galvanically Isolated 4 - 20 mA
Optional Comm. output	Isolated RS 485
Comm. Protocol	MODBUS RTU
Operating Environment	-10 to 50°C / 10 to 95 % RH Non Condensing
Power Supply	90 to 270V AC / DC 50Hz
Dimension	96 x 96 x 85 mm
Cutout Dimension	92 x 92 mm
Weight	350 grams (Approx.)

Note:

1. Online pH sensor is Optional. It depends on application, working temperature, type of fitting and cable length
2. Due to continuous product improvements, published specifications may change with out notice

ORDERING INFORMATION FOR ONLINE PH CONTROLLER/ TRANSMITTER

MODEL : PH 600-1 - B - D - L - P - R

B

D

L

P

R

Power supply :

B – 90 to 270V AC/DC

C – 24V DC $\pm$ 10 %

Temperature Compensation :

D – Manual Temperature Compensation(MTC)

E – Automatic Temperature Compensation(ATC)

Control / alarm output:

L – 2 CONTROL RELAY OUTPUT(5A RATED)

O – 2 SSR DRIVE O/P (24V DC)

X – NONE

Re transmission output:

P – 4 – 20 mA (opto isolated)

Q – 0 – 10 Volt (opto isolated)

X – NONE

Communication output:

R – RS 485 MODBUS SLAVE

X – NONE

S.NO.	ordering code	power supply	Temperature Compensation	Control / alarm output	Re transmission output	Communication output
1	PH 600-1-B-D-L-P-R	90 to 270V AC/DC	MANUAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 – 20 mA (opto isolated)	RS 485 MODBUS SLAVE
2	PH 600-1-B-D-L-X-X	90 to 270V AC/DC	MANUAL	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	NONE
3	PH 600-1-B-D-L-P-X	90 to 270V AC/DC	MANUAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 – 20 mA (opto isolated)	NONE
4	PH 600-1-B-D-X-P-R	90 to 270V AC/DC	MANUAL	NONE	4 – 20 mA (opto isolated)	RS 485 MODBUS SLAVE
5	PH 600-1-B-D-X-P-X	90 to 270V AC/DC	MANUAL	NONE	4 – 20 mA (opto isolated)	NONE
6	PH 600-1-B-D-X-X-R	90 to 270V AC/DC	MANUAL	NONE	NONE	RS 485 MODBUS SLAVE
7	PH 600-1-B-D-X-X-X	90 to 270V AC/DC	MANUAL	NONE	NONE	NONE
8	PH 600-1-B-D-L-X-R	90 to 270V AC/DC	MANUAL	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	RS 485 MODBUS SLAVE



SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879
(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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