

SPEC SHEET

Plug-in Type Digital Indicating pH Meter

WIL-102-PH

- DIN rail mounted type
- Various settings, calibration operable via software communication (RS-485)
- 24 V power supply available (user-specified)
- Cleansing output function equipped
- Transmission output 1 and 2 (optional)



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Model	<table border="1"> <tr> <td>WIL-102-PH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Input points</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>Input</td> <td>PH</td> <td></td> <td></td> </tr> <tr> <td>Power supply voltage</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td>Option</td> <td>EVT</td> <td></td> <td></td> </tr> <tr> <td></td> <td>TA</td> <td></td> <td></td> </tr> <tr> <td></td> <td>TA2</td> <td></td> <td></td> </tr> </table>			WIL-102-PH				Input points	2			Input	PH			Power supply voltage	1			Option	EVT				TA				TA2		
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	<p>(*1) This input temperature specification was specified at the time of ordering. (*2) Power supply voltage 100 to 240 V AC is standard. When ordering 24 V AC/DC, enter 1 in Power supply voltage, after 'PH'. Accessories sold separately: Socket: ASK-001-1 (Finger-safe, Ring terminal unusable)</p>																														
Measurement range	pH value: pH 0.00 to 14.00 Resolution: pH 0.01 Temperature: 0.0 to 100.0°C Resolution: 0.1°C																														
Repeatability	pH value: pH ±0.05																														
Linearity	pH value: pH ±0.05																														
Indication accuracy	Temperature: ±1°C																														
Calibration function	2-points Automatic or Manual calibration 2-points Automatic calibration: Automatic electrode quality evaluation Standard solution type: pH 2, 4, 7, 9, 10 (JIS) Combination of Standard solution: pH 7 (1st solution) and any 2nd solution Manual calibration: 2 types of solution with a difference of 2 pH or more Temperature calibration (1 point)																														
Self-diagnosis	The CPU is monitored by a watchdog timer, and if an abnormal status occurs, the instrument is switched to warm-up status.																														
Temperature compensation element	pH combined electrode sensor (pH sensor: Based on JIS Z8802, Temperature element: Pt1000 or Pt100) pH combined electrode sensor (pH sensor: Based on JIS Z8802, Temperature element: Cu500/25°C)																														
Temperature compensation range	0.0 to 100.0°C																														
Ambient temperature	0 to 50°C (32 to 122°F)																														
Ambient humidity	35 to 85 %RH (Non-condensing)																														
Power supply (user-specified)	WIL-102-PH: 100 to 240 V AC 50/60 Hz Allowable fluctuation range: 85 to 264 V AC WIL-102-PH 1: 24 V AC/DC 50/60 Hz Allowable fluctuation range: 20 to 28 V AC/DC																														
Structure	DIN rail mounted Case: Flame-resistant resin, Color: Light gray Front panel: Membrane sheet																														
Protection structure	Overvoltage category II, Pollution degree 2 (IEC61010-1)																														
Safety standards	RoHS directive compliant																														
Dimensions	W30 x H88 x D108 mm (including socket)																														
Weight	Approx. 200 g (including socket)																														

<p>Contact output [EVT option]</p>	<p>Relay contact 1a (Bit reading via 2 status flags for 1 output in Serial communication) 2-points Contact output Control capacity: 3 A 250 V AC (Resistive load), 1 A 250 V AC (Inductive load, $\cos\phi=0.4$) Electrical life: 100,000 cycles, Control action: ON/OFF control</p>												
<p>Transmission output 1 [TA option]</p>	<p>Converting pH or temperature to analog signal every input sampling period, outputs the value in current. (Factory default: pH) If Transmission output 1 high limit and low limit are set to the same value, Transmission output 1 will be fixed at 4 mA DC. Resolution: 12000, Current: 4 to 20 mA DC (Load resistance: Max 550 Ω) Output accuracy: Within $\pm 0.3\%$ of Transmission output 1 span 1-point Contact output: See the Contact output (EVT option).</p>												
<p>Transmission output 2 [TA2 option]</p>	<p>Converting pH or temperature to analog signal every input sampling period, outputs the value in current. (Factory default: Transmission output 1: pH, Transmission output 2: Temperature) If Transmission output 2 high limit and low limit are set to the same value, Transmission output 2 will be fixed at 4 mA DC. Resolution: 12000, Current: 4 to 20 mA DC (Load resistance: Max 550 Ω) Output accuracy: Within $\pm 0.3\%$ of Transmission output 2 span</p>												
<p>Dimensions (Scale: mm)</p>													
<p>Terminal arrangement</p>	<p>T, T: Temperature compensation sensor terminals (⑤-⑥) Temperature element: Cu500 (2-wire) A, B: Temperature compensation sensor terminals (⑤-⑥) Temperature element: Pt100 (2-wire), Pt1000 A, B, B: Temperature compensation sensor terminals (⑤-⑥-⑦) Temperature element: Pt100 (3-wire) G, R: Electrode sensor terminals (①-②) pH combined electrode sensor E: Shield wire terminal (③) pH combined electrode sensor POWER SUPPLY: Power terminals (⑬-⑭) When EVT option is ordered: A1: A1 output terminals (⑨-⑩) A2: A2 output terminals (⑪-⑫) When TA option is ordered: A1: A1 output terminals (⑨-⑩) TRANSMIT OUTPUT1: Transmission output 1 terminals (⑪-⑫) When TA2 option is ordered: TRANSMIT OUTPUT2: Transmission output 2 terminals (⑨-⑩) TRANSMIT OUTPUT1: Transmission output 1 terminals (⑪-⑫) RS-485: Serial communication modular jack • When no option is ordered, A1, A2, TRANSMIT OUTPUT1 and TRANSMIT OUTPUT2 terminals are not equipped.</p> <p>Modular Jack Pin (WIL-102-PH side arrangement)</p> <table border="1" data-bbox="391 1780 646 1982"> <tr> <td>No. 1</td> <td>COM</td> </tr> <tr> <td>No. 6</td> <td>NC</td> </tr> <tr> <td>No. 1</td> <td>No. 3 YB(+)</td> </tr> <tr> <td>No. 6</td> <td>No. 4 YA(-)</td> </tr> <tr> <td></td> <td>No. 5 NC</td> </tr> <tr> <td></td> <td>No. 6 COM</td> </tr> </table>	No. 1	COM	No. 6	NC	No. 1	No. 3 YB(+)	No. 6	No. 4 YA(-)		No. 5 NC		No. 6 COM
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