SPEC SHEET

Plug-in Type Digital Indicating Turbidity/SS Meter

WIL-101-TU

- DIN rail mounted type
- Various settings, calibration operable via software communication (RS-485)
- 24 V AC/DC power supply (user-specified)

Name	Plug-in Type Digital Indicating Turbidity/SS Meter
Model	

WIL-10	1	-TU		, □□□	
Input points	1				1 point
Input		TU			Turbidity sensor (made by OPTEX), SS (Suspended Solids) sensor (made by OPTEX)
Power supply voltage					100 to 240 V AC (standard)
			1		24 V AC/DC (*)
Option				EVT	1-point Contact output
				TA	1-point Transmission output

(*) Power supply voltage 100 to 240 V AC is standard.
When ordering 24 V AC/DC, enter 1 in Power supply voltage, after 'TU'.

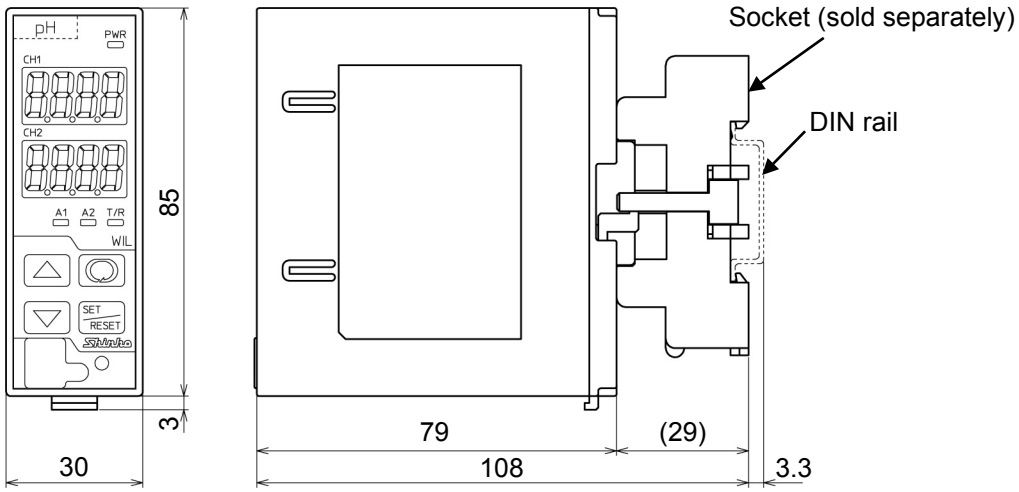
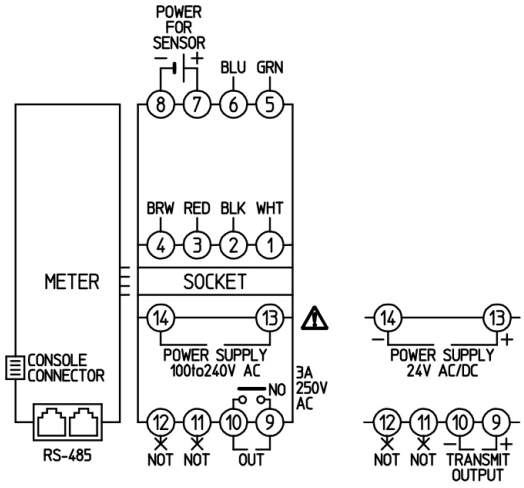
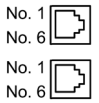
Accessories sold separately: Socket: ASK-001-1 (Finger-safe, Ring terminals unusable)

Measurement range

Input	Input Range	Resolution
Turbidity (*1)	0.0 to 100.0 (Formazin)	0.1 (Formazin)
	0 to 500 (Formazin)	1 (Formazin)
	0 to 3000 (Formazin)	
SS	0 to 1000 mg/L (Kaolin)	1 mg/L
	0 to 50000 mg/L (Kaolin)	10 mg/L

(*1) Changeable from Formazin to Kaolin in [Measurement unit].
(*2) The ones digit of the current Turbidity/SS input value is rounded off, and is divided by 10. This value is indicated as an input value.

Repeatability	±0.2% of measurement span±1 digit (However, sensor accuracy excluded.)
Linearity	±0.2% of measurement span±1 digit (However, sensor accuracy excluded.)
Input sampling period	500 ms
Time accuracy	Within ±1% of setting time
Turbidity/SS inputs for moving average	1 to 120
Self-diagnosis	The CPU is monitored by a watchdog timer, and if an abnormal status occurs, the instrument is switched to warm-up status.
Input	Turbidity sensor (made by OPTEX): TC-100, TC-500, TC-3000 SS sensor (made by OPTEX): TCS-1000(E), TS-MxS-A
Ambient temperature	0 to 50℃
Ambient humidity	35 to 85 %RH (Non-condensing)
Power supply (user-specified)	WIL-101-TU: 100 to 240 V AC 50/60 Hz Allowable fluctuation range: 85 to 264 V AC WIL-101-TU 1: 24 V AC/DC 50/60 Hz Allowable fluctuation rang: 20 to 28 V AC/DC
Structure	DIN rail mounted type 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)

Contact output [EVT option]	Relay contact 1a (Output status can be read by reading 4 alarm output flag bits.) 1-point Contact output Control capacity: 3 A 250 V AC (Resistive load), 1 A 250 V AC (Inductive load, cosϕ=0.4) Electrical life: 100,000 cycles Control action: ON/OFF control action
Transmission output [TA option]	Converting turbidity input to analog signal every input sampling period, outputs the value in current. If Transmission output high limit and low limit are set to the same value, Transmission output will be fixed at 4 mA DC. Resolution: 12000 Current: 4 to 20 mA DC (Load resistance: Max. 550 Ω) Output accuracy: Within ±0.3% of Transmission output span
Dimensions (Scale: mm)	
Terminal arrangement	 WHT: Turbidity/SS meter analog signal (+) input terminal (White) (①) BLK: Turbidity/SS meter analog signal (-) input terminal (Black) (②) RED: Turbidity/SS meter calibration signal output terminal (Red) (③) BRW: Turbidity/SS meter power (+) terminal (Brown) (④) GRN: Turbidity/SS meter self-check input terminal (Green) (⑤) BLU: Turbidity/SS meter power (-) terminal (Blue)(⑥) POWER FOR SENSOR +: External power (+) terminal (⑦) POWER FOR SENSOR -: External power (-) terminal (⑧) When EVT option is ordered: OUT: A1 output (Contact output 1) terminals (⑨ - ⑩) When TA option is ordered: TRANSMIT OUTPUT: Transmission output terminals (⑨ - ⑩) NOT: Connection impossible (⑪) NOT: Connection impossible (⑫) POWER SUPPLY: Power terminals (⑬ - ⑭) 24 V AC/DC (When 1 is entered after 'TU') RS-485: Serial communication modular jack Modular Jack Pin (WIL-101-TU side arrangement)  No. 1 COM No. 2 NC No. 3 YB(+) No. 4 YA(−) No. 5 NC No. 6 COM Power Supply (OMRON products recommended.) S8VS-01512 (12 V DC): Turbidity sensor: TC-100, TC-500, TC-3000, SS sensor: TCS-1000(E) S8VS-01524 (24 V DC): SS sensor: TS-MxS-A