

OMRON

Product Discontinuation

Notices

March 1, 2012 No. 2012089E

Wireless Components

Discontinuation Notice of WT30 series.



FA Wireless SS Terminals



Recommended Replacement

X

Model WT30 series

No recommended replacement

Discontinuation date : The end of March, 2013

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
WT30-AT001 Magnet-base Antenna	No recommended replacement
WT30-AT003 Pencil Antenna	No recommended replacement
WT30-CA2M Antenna Extension Cable	No recommended replacement
WT30-FT003 Pencil Antenna	No recommended replacement
WT30-M01-FLK Serial master	No recommended replacement
WT30-SID16 I/O slaves	No recommended replacement
WT30-SMD16 I/O slaves	No recommended replacement
WT30-SMD16-1 I/O slaves	No recommended replacement

OMRON Corporation Industrial Automation Company



Wire connection

Product discontinuation

Serial Master Station WT30-M01-FLK



D-sub, 9-pin	D-sub, 9-pin, Female End at WT30			
Pin No.	Signal	I/O direction		
1				
2	RD	Output		
2 3	SD	Input		
4				
5	SG			
6				
7				
8				
9				

WT30-SID16







Characteristics

Item		WT30-M01-FLK Serial Master	WT30-SID16/SMD16/SMD16-1 I/O Slaves	
		24 V DC		
(wireless communications power supply)	Allowable voltage range	20.4 to 26.4 V DC		
perior employ	Power consumption	3 W max. (See note 1.)		
Error output/output	Rated voltage		24 V DC	
power supply (for output circuits)	Allowable voltage range		20.4 to 26.4 V DC	
Insulation resistance		20 $M\Omega$ min. (at 100 V DC) between the power supply and chassis	$20~\text{M}\Omega$ min. (at 100 V DC) between the power supply and all I/O and I/O power supply and between the power supply and chassis	
Dielectric strength		1,500 V AC for 1 min between power supply and chassis	1,500 V AC for 1 min between the power supply and all I/O and I/O power supply and between the power supply and chassis	
Noise immunity		IEC61000-4-4. 1 kV (power supply line)	•	
Vibration resistance (See note 2.)		JIS C0040 Frequency: 10 to 55 Hz; Amplitude of 0.35 mm or acceleration of 50 m/s ² , whichever is smaller (DIN Rail mounting: single amplitude of 0.1 mm or acceleration of 15 m/s ²) 10 sweeps of 8 min each (i.e., 80 min in total) in X, Y, Z directions		
Shock resistance		Conforms to JIS C0041: 300 m/s ² 3 times each in X, Y, and Z directions		
Ambient operating temperature		-10 to 55°C (with no condensation or icing) (with the Terminal mounted with the dust-proof label facing up)	Number of simultaneously ON I/O points 10 max.: -10 to 55°C (with no condensation or icing) 16 max.: -10 to 50°C (with no condensation or icing) (with the Terminal mounted with the dust-proof label facing up)	
Ambient operating hum	nidity	25% to 85% (with no condensation or icing)		
Ambient environment		No corrosive gases		
Storage temperature		-25 to 65°C (with no condensation or icing)		
Protective structure		IP20		
Terminal construction	Power supply and I/O	Screwless terminal block (Phoenix Contact FFKDS/V1-5.08 or equivalent)		
	Serial	D-sub, 9-pin (female) Inch screws (OMRON XM2F-0910-132 or equivalent), Master station only		
Safety standards		UL: UL508 (Listing)		
Weight		330 g max.		

Note 1. : Provide a power supply of at least 15 W, considering the inrush current generated at startup. Note 2. : Use the WT30-FT003 Surface Mounting Bracket when installing the WT30 in environments subject to vibration

Wireless Interface Specifications

ltem	Specifications	
Wave type	Spread Spectrum (direct sequence; DS-SS)	
Communication method	Simplex	
Frequency band	2,401 to 2,480.2 MHz	
Number of channels	67 channels (based on switching)	
Transmitter output power	10 mW/MHz	
Baud rate between wireless stations	100 kbps	
Communications distance (See note.)	Indoors: 60 m min. (approx. 50 m min. with Magnet-base Antennas and Flat Diversity Antennas) Outdoors: Approx. 300 m min. (anticipated distances) (without using relay stations)	
Error detection method	CRC-CCITT (16 bits)	
Relay functions	One stage using I/O slave for the serial master configuration.	
Number of stations per area (See note.)	10 sets max. (recommended)	
Number of I/O Slaves connected	64 max.	

Note: Varies according to the installation environment.

Operation methods



Product discontinuation

Unit No. Switch

Set the unit number of the Serial Master Station. Default: 00

Node Setting Switch (WNODE)

Set the number of connected I/O Slave Stations. Set the node number of the Slave Stations being used as I/O Slave Stations. The Slave Station functions as a relay station when the node number is set to 99. Default: 01

Channel Setting Switch (WCH)

Set the communications frequency. Default: 02

Function Setting Switch

Serial Master Station

No.	Applicable mode	ON functions	OFF functions	
1	RUN mode	Holds I/O status data when a communications error occurs.	Clears I/O status data when a communications error occurs.	
2]	Enable scan list	Disable scan list	
3	1	Relays used	Relays not used	
4	TEST mode	Signal strength monitor disabled	Signal strength monitor enabled	
5		All channels automatically switched	Specified channels	
6	1			
7	SET mode	Scan list recognition	Nothing done	
8		Registers specified I/O slave	Registers all I/O slaves automatically	
9		Recognizes serial numbers	Ignores serial numbers	
10	Not used			

I/O Slave Station

No.	Applicable mode	ON functions	OFF functions
1	RUN mode	Holds I/O status data when a communications error occurs.	Clears I/O status data when a communications error occurs.
2	1	Input hold	Normal mode
3		Input filter: 100 ms	Input filter: 10 ms
4	TEST mode	Signal strength monitor disabled	Signal strength monitor enabled
5		All channels automatically switched	Specified channels
6		Installation test function	Nothing done
7 to 10	Not used		

Operation methods

Product discontinuation

Serial Communications Setting Switch

No.	Function	ON	OFF
1	Communications setting selection	Detailed settings (settings for No. 2 to 8 used)	Default settings (baud rate: 9,600 bps; data length: 7 bits; parity: even; stop bits: 2) Settings for No. 2 to 8 are ignored.
2	Baud rate (bps)	1	0
3	(See note.)	2	0
4	Total value = 0: 1,200 = 1: 2,400 = 2: 4,800 = 3: 9,600 = 4: 19,200 = 5: 38,400 = 6: 57,600 = 7: 115,200	4	0
5	Data length	8 bits	7 bits
6	Parity	None	Yes
7		Odd	Even
8	Stop bits	1 bit	2 bits

Note: For example, if pins number 2, 3, and 4 are all ON, the total is 7, which corresponds to a baud rate of 115,200 bps.

Indicator	Color	Status	Meaning (primary error)
PWR	Green	Lit	Power is being supplied.
		Not lit	Power is not being supplied.
ERR (Slave Station)	Red	Lit	Error output is ON: Wireless device error or wireless communications error. (See note)
		Not lit	No wireless device error or wireless communications error.
COMM (Master Station)	Yellow	Lit	Serial communications in progress.
		Not lit	No serial communications.
0 to 15 (Slave Station)	Yellow	Lit/Not lit	ON/OFF status for input or output signals
RSSI	Red/ Yellow/ Green	Lit/ All not lit	Receiving Signal Strength Indicator monitor: Number of indicators lit (receiving signal strength 1 to 9) Receiving signal strength less than 0 to 1.
MS	Green	Lit	Communications are normal.
(Module Status)		Flashing	TEST mode or SET mode has been activated.
	Red	Lit	A fatal error has occurred that cannot be recovered from. Replace the Unit
		Flashing	A non-fatal error has occurred that can be recovered from by resetting the system.
		Not lit	Power is not being supplied or the system is resetting.
WS (Wireless	Green	Lit	The station has joined the wireless network.
Status)		Flashing	Permission to join wireless network received from Serial Master Station (Slave Station)
	Red	Lit	A fatal error has occurred that cannot be recovered from.
		Flashing	Error from which recovery is possible
		Not lit	Wireless communications are not in progress.

Note: When using the WD30 as the Serial Master Station, the ERR indicator will light if normal I/O communications are not possible due to an error in the host network.