Specifications: *The specifications are subject to change without a prior notice.*

Number of input	3, 6, 9 or 12 channels
Measuring cycle	100 ms
Recording cycles	1 sec thru 60 min (Main/Sub record) 100 ms selectable at sub record
CMRR	140 dB minimum
NMRR	60 dB minimum
LCD	5.7 inch TFT (320 x 240 pixels), touch screen
Display contents	・Real time trend display, vertical & horizontal ・Historical trend display, vertical & horizontal ・Bar graph display ・Digital display
Internal memory	Approx. 100 MB
External recording medium	SD memory card, 2 GB max SDHC memory card, 32 GB max
Data file storage cycle	Selectable in range from one hour thru one year
Alarm output	One output (open collector), 30 VDC, 20 mA/point contact rating
Alarm settting	Max 4 points per channel
Communication	Ethernet 10BASE−T, HTTP server, FTP server, Modbus TCP protocol & SNTP
Rated power supply	100 thru 240 V AC, 50/60 Hz
Power consumption	25 VA max. at AC 240 V
Environment	Operation: 0 thru 50 degrees C (ambient), 20 thru 80 %RH (ambient) Transportation & Storage: −10 thru 60 degrees C, 5 thru 90 %RH Oscillation below 2.45 m/s2 10 thru 60 Hz Impact below 249 m/s2 (packed in box)
Structure	Panel mounting type Polycarbonate glass 10 % UL94−V0
Weight	Approx. 1.0 kg (6 channel model)
Standard accessories	Panel mounting bracket x 2 pieces CD−ROM x 1 piece (PC support software & instruction manual) * Compatible with Windows XP/Vista with 500 MB capacity minimum Water proof panel packing for front panel x 1 piece * SD/SDHC memory cards not supplied. Procure locally.
Optional accessories	HMSU3081A11 Shunt resistance for DC input (250 ohm +/− 0.1 %) WMSU0303A01 Terminator for RS−485 (200 ohm) WMSU0468A01 DI/DO cable with connector (1 m) WMSU0468A02 DI/DO cable with connector (3 m)

PAPERLESS TOUCH SCREEN RECORDER VM7000 Series: 3, 6, 9 or 12 channels

Paperless Touch-Screen Recorders

One of the Most Compact and Cost Effective Panel-Mount 100 mm Paperless Touch-Screen Recorders Available Today in the Industry

Engineered and manufactured in Japan

STC Sanwa Tsusho Co., Ltd. 3-13-2, Nishi-Gotanda, Shinagawa, Tokyo 141-0031 Japan T: +81 3 3492 6300 F: +81 3 3492 6311
E-mail: mailto@sanwatsusho.com www.sanwatsusho-global.com

Features:

- Easy set-up. Touch the 5.7 inch TFT screen and follow the message on the display.
- Set-up in PC also available
- Set-up data transferable with memory cards
- Compatible with 2 GB SD or 32 GB SDHC cards
- Higher durability in harsh noise environment
  CMRR of 140 dB minimum. NMRR of 60 dB minimum.
- IP 65 conformity. A standardized IP 65 conformity accessory protects the front panel against dust and splash.
- Dimensions for simple replacement of 100 mm width chart recorders in panel
- Network with Ethernet (standard) or RS-485 (optional)
- Normal mode for quick start. Advanced mode for demanding applications
- Precision engineered and built in Japan

Model Code:

V M 70 □ □ A □ □ 0 0

Number of input points

03: 3 channels
06: 6 channels
09: 9 channels
12: 12 channels*1

Option card
0: None (Standard)
1: DI/DO*2
2: Relay

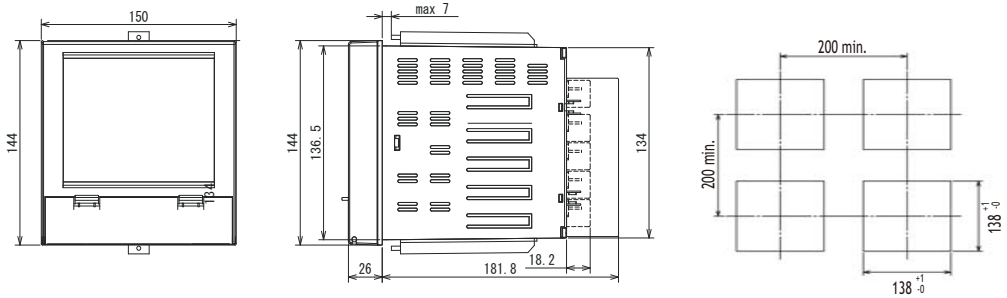
Communication
0: None (Standard)
1: RS-485*3

*1 The model with 12 channels is not compatible with DI/DO and relay cards.

*2 DI/DO cards are supplied without cables. Order DI/DO cable separately, if necessary.

*3 RS-485 is supplied without a terminator. Order the terminator for RS-485, if necessary.

Dimensions & Panel Cutout (mm):



PAPERLESS TOUCH SCREEN RECORDER VM7000 Series: 3, 6, 9 or 12 channels

Measurement Range:

The range code can be assigned by channel in “setting input type” menu.

Range code	Type	Measuring range	Max resolution	Measurement accuracy
000	mV	-10.00 thru +10.00	10 uV	+/- (0.1 % + 1 digit)
001	mV	0.00 thru +20.00	10 uV	
002	mV	0.00 thru +50.00	10 uV	*1. 0 thru 400 degrees C:
003	V	-0.200 thru +0.200	1 mV	+/- 4 %
004	V	-1.000 thru +1.000	1 mV	400 thru 800 degrees C:
005	V	-10.00 thru +10.00	10 mV	+/- (0.15 % + 1 digit)
006	V	0.000 thru +5.000	1 mV	
007	mA	4.00 thru 20.00	0.01 mA	*2. 0 thru 200 degrees C:
008	B (*1)	0.0 thru 1820.0	0.1 degrees C	+/- (0.15 % + 1 digit)
009	R1 (*2)	0.0 thru 1760.0	0.1 degrees C	
010	R2 (*2)	0.0 thru 1200.0	0.1 degrees C	*3. 1 thru 20 K:
011	S (*2)	0.0 thru 1760.0	0.1 degrees C	+/- (0.5 % + 1 digit)
012	K1 (*5)	-200.0 thru 1370.0	0.1 degrees C	20 thru 50 K:
013	K2 (*5)	-200.0 thru 600.0	0.1 degrees C	+/- (0.3 % + 1 digit)
014	K3 (*5)	-200.0 thru 300.0	0.1 degrees C	
015	E1 (*5)	-200.0 thru 800.0	0.1 degrees C	*4. 0 thru 300 degrees C:
016	E2 (*5)	-200.0 thru 300.0	0.1 degrees C	+/- (1.5 % + 1 digit)
017	E3 (*5)	-200.0 thru 150.0	0.1 degrees C	300 thru 800 degrees C:
018	J1 (*5)	-200.0 thru 1100.0	0.1 degrees C	+/- (0.8 % + 1 digit)
019	J2 (*5)	-200.0 thru 400.0	0.1 degrees C	
020	J3 (*5)	-200.0 thru 200.0	0.1 degrees C	*5. -200.0 thru 0.0 degrees C:
021	T1 (*5)	-200.0 thru 400.0	0.1 degrees C	+/- (0.15 % + 1 digit)
022	T2 (*5)	-200.0 thru 200.0	0.1 degrees C	
023	C	0.0 thru 2320.0	0.1 degrees C	
024	Au-Fe (*3)	1.0 thru 300.0	0.1 K	+/- (0.2 % + 1 digit)
025	N	0.0 thru 1300.0	0.1 degrees C	+/- (0.1 % + 1 digit)
026	RP40-20 (*4)	0.0 thru 1880.0	0.1 degrees C	+/- (0.2 % + 1 digit)
027	PL II	0.0 thru 1390.0	0.1 degrees C	+/- (0.1 % + 1 digit)
028	U (*5)	-200.0 thru 400.0	0.1 degrees C	
029	L (*5)	-200.0 thru 900.0	0.1 degrees C	
030	Pt100-1	-200.0 thru 650.0	0.1 degrees C	
031	Pt100-2	-200.0 thru 200.0	0.1 degrees C	
032	JPt100-1	-200.0 thru 630.0	0.1 degrees C	
033	JPt100-2	-200.0 thru 200.0	0.1 degrees C	

The accuracy is taken in the following reference conditions. Reference junction compensation accuracy is not included in the digital display accuracy.

Reference conditions:

Ambient temperature:	23 +/- 2 degrees C
Ambient humidity:	55 +/- 10 % RH
Supply voltage:	85 thru 264 VAC
Power supply frequency:	50/60 Hz +/- 1 %
Warmup time:	30 minutes minimum after power on

Reference junction compensation accuracy:

R, S, B, PR40-20, Au-Fe:	+/-1 degrees C
K, E, J, T, C, N, PL II, U, L:	+/-0.5 degrees C