PAPERLESS RECORDER

TRM-20

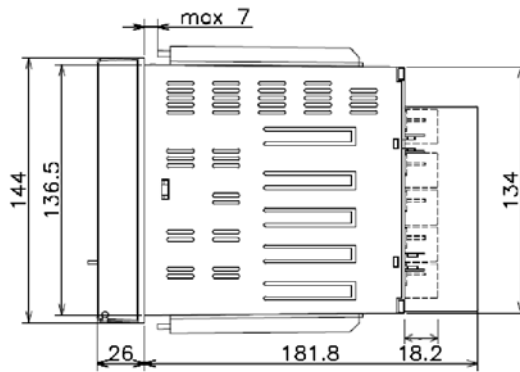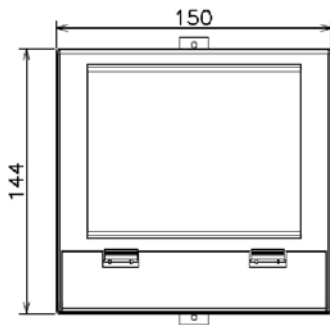Simple & High – Performance

FEATURES

- 5.7-INCH TFT LIQUID CRYSTAL DISPLAY TOUCH PANEL
- SELECTABLE FROM INPUT CHANNEL 6, 9 AND 12CH
- MULTI-RANGE INPUT
- PC SUPPORT SOFTWARE SUPPLIED AS STANDARD ACCESSORY
- ETHERNET COMMUNICATION FUNCTION SUPPLIED AS STANDARD EQUIPMENT
- DATA STORAGE TO LARGE CAPACITY SD CARD
- CONFORMS TO IP65 WATER-PROOF/ DUST-PROOF (FRONT PORTION)
- CONFORMS TO CE STANDARD

EASY OPERATION
BY TOUCH PANEL

LARGE CAPACITY DATA STORAGE
TO SD MEMORY CARD

TOHO ELECTRONICS INC.

■SPECIFICATIONS

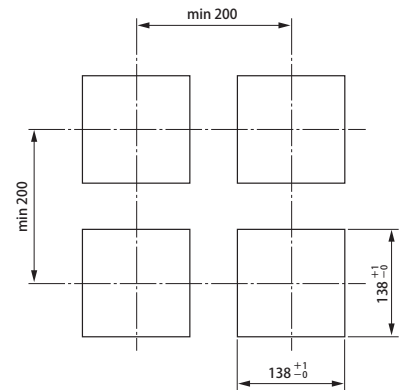| INPUT | NO. OF POINTS | SELECTABLE FROM 6, 9 AND 12 POINTS ＊When 12-point type is selected, the option selection for the DI/DO card cannot be made. |
	MEASURING CYCLES	100ms
	DATA SAVE CYCLE	Selectable from 1 sec. to 60 min. (Main/Sub Data Save) For Sub-Data Save, 100ms is selectable
	INPUT TYPE	THERMOCOUPLE	K, E, J, T, C, N, PL II, U, L, R, S, B, PR40-20, AU-Fe
		R.T.D.	Pt100, JPt100
		DC VOLTAGE	−10 to +10mV, 0 to 20mV 0 to 50mV, −0.2 to +0.2V −1 to +1V, −10 to +10V 0 to 5V
		DC CURRENT	4-20mA (external shunt resistance)
PERFORMANCE	INDICATION ACCURACY	±of the input range (0.1% + 1-digit)
DISPLAY	DISPLAY TYPE	5.7-inch TFT Color LCD (QVGA) Touch Panel Resistive Touch Display
	DISPLAY COLOR	16 colors
	DISPLAY CONTENTS	Trend Display (Horizontal/Vertical Directions) Historical Trend Display (Horizontal/Vertical Directions) Bar Graph Display Digital Display History Display (Event/Communication)
	SCREEN SAVER	BACKLIGHT AUTO-OFF
	BACKLIGHT LIFE	50,000 HRS.
	LANGUAGE DISPLAY	Japanese/English is selectable from the set display
ALARM FUNCTION	No. OF SETTING	Up to 4 setting is possible for every input channel
	ALARM OUTPUT	1-point (Open collector output)
	CONTACT STD.	30V DC 20mA

RECORDING FUNCTION	RECORDING MEDIUM	SD Card (Max. 2 GB) SDHC Card (Max. 32GB)
	INTERNAL MEMORY	Appx. 100MB
	RECORDING METHOD	Recording starts in fixed cycle by turning ON the REC key on the front face. New data file is made in every start of recording
	DATA SAVE CYCLES	Selectable from 1 sec. to 60 min.
	DATA SAVE PERIOD	Selectable from 1 hr. to 1 year
	DATA FORMAT	CSV Data	Appx. 120 bytes for every data save cycle (In 6-CH input)
		Binary Data	Appx. 30 bytes for every data save cycle (In 6-CH input)
		＊Data volume depends on the recording condition	
COMMUNICATION FUNCTION	ETHERNET 10 BASE-T	HTTP Server, FTP Server MODBUS TCP Protocol
GENERAL SPECIFICATION	ATTACHMENT METHOD	Attached to the panel (vertical panel)
	MATERIAL	Polycarbonate Glass 10% UL94-V0 (Case, bezel)
	EXTERNAL DIMENSION	150 (W) × 144 (H) × 181.8 (D)
	WEIGHT	Appx. 1.0 kg. (6-CH input type)
	POWER SOURCE	100 - 240 V AC 50/60 Hz
	NORMAL OPERATING CONDITION	Power Voltage	85 to 264 V AC
		Ambient temp.	0 - 50℃
		Ambient humidity	20 to 80% RH
	POWER CONSUMPTION	Less than 15VA (100V AC) Less than 25VA (240V AC)
OPTION	DI/DO CARD	DI/DO	Input (Non-voltage contact) 9-points
			Output (open collector) 12-points
	COMMUNICATION	RS-485	MODBUS RTU Protocol

■Dimensions

(mm)

Panel Cross-Section (mm)

■ORDER INFORMATION (MODEL CONFIGURATION)

INPUT CH   OPTION

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INPUT POINT	06	6-point		
	09	9-point		
	12	12-point (DI/DO cards not selectable)		
OPTION	①	Communication (RS-485)	0	without
			1	with
	②	Input/Output (DI/DO card)	0	without
			1	with (when 12-point input is selected, this option is not selectable)
	③	Test Certificate	0	without
			1	with (Japanese version)
			2	with (English version)

STANDARD ACCESSORIES

ITEM NAME		QTY.
MAIN UNIT		1 unit
PANEL ATTACHMENT METAL		1 set
CD-ROM	PC SUPPORT SOFTWARE INSTRUCTION MANUAL (JAPANESE/ENGLISH)	1 pc.
FRONT SIDE WATERPROOF PANEL PACKING		1 pc.

NOTE: SD card is not supplied.Please purchase the card at the computer shop.

SOLD SEPARATERY

ITEM NAME	MODEL
DC CURRENT INPUT SHUNT RESISTOR	HMSU3081A11
RS-485 COMMUNICATION TERMINAL RESISTOR	WMSU0303A01
DI/DO CABLE (1 m)	WMSU0468A01
DI/DO CABLE (3 m)	WMSU0468A02

NOTE: Cable is not included in the option DI/DO. If necessary, please purchase DI/DO cable sold separately.

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