



PAPERLESS RECORDER

# TRM-20



Simple & High - Performance

**EASY  
OPERATION  
BY  
TOUCH  
PANEL**

**LARGE  
CAPACITY  
DATA STORAGE  
TO  
SD MEMORY  
CARD**

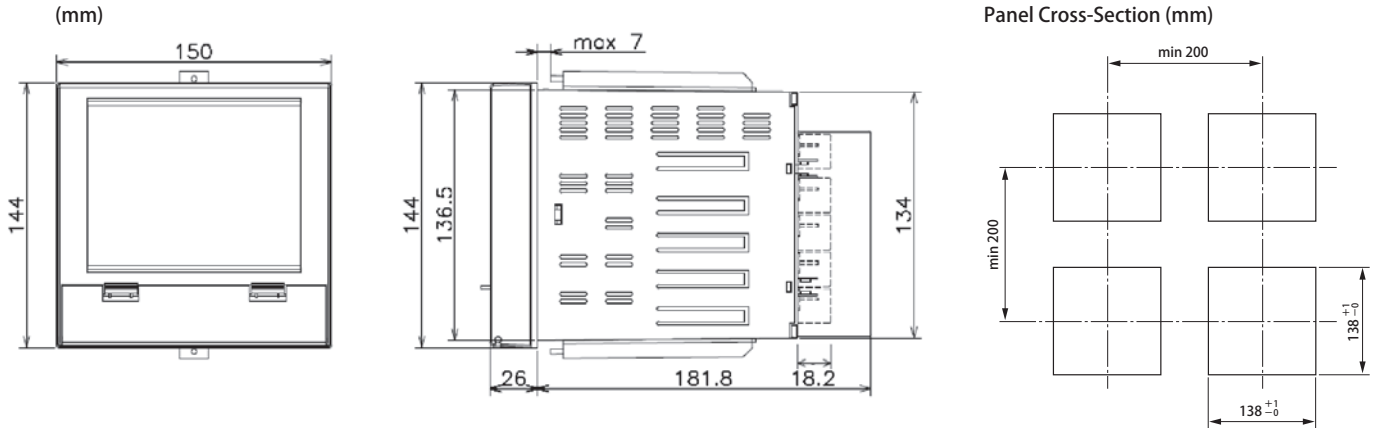
## FEATURES

- 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

## 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.	RECORDING FUNCTION	RECORDING MEDIUM	SD Card (Max. 2 GB) SDHC Card (Max. 32GB)		
	MEASURING CYCLES	100ms		INTERNAL MEMORY	Appx. 100MB		
	DATA SAVE CYCLE	Selectable from 1 sec. to 60 min. (Main/Sub Data Save) For Sub-Data Save, 100ms is selectable		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		
	INPUT TYPE	THERMOCOUPLE		K, E, J, T, C, N, PL, II, U, L, R, S, B, PR40-20, AU-Fe	DATA SAVE CYCLES	Selectable from 1 sec. to 60 min.	
		R.T.D.		Pt100, JPt100	DATA SAVE PERIOD	Selectable from 1 hr. to 1 year	
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	DATA FORMAT	CSV Data	Appx. 120 bytes for every data save cycle (In 6-CH input)		
DC CURRENT	4-20mA (external shunt resistance)	Binary Data		Appx. 30 bytes for every data save cycle (In 6-CH input)			
				*Data volume depends on the recording condition			
PERFORMANCE	INDICATION ACCURACY	± of the input range (0.1% + 1-digit)	COMMUNICATION FUNCTION	ETHERNET 10 BASE-T	HTTP Server, FTP Server MODBUS TCP Protocol		
DISPLAY	DISPLAY TYPE	5.7-inch TFT Color LCD (QVGA) Touch Panel Resistive Touch Display	GENERAL SPECIFICATION	ATTACHMENT METHOD	Attached to the panel (vertical panel)		
	DISPLAY COLOR	16 colors		MATERIAL	Polycarbonate Glass 10% UL94-V0 (Case, bezel)		
	DISPLAY CONTENTS	Trend Display (Horizontal/Vertical Directions) Historical Trend Display (Horizontal/Vertical Directions) Bar Graph Display Digital Display History Display (Event/Communication)		EXTERNAL DIMENSION	150 (W) × 144 (H) × 181.8 (D)		
	SCREEN SAVER	BACKLIGHT AUTO-OFF		WEIGHT	Appx. 1.0 kg. (6-CH input type)		
	BACKLIGHT LIFE	50,000 HRS.		POWER SOURCE	100 - 240 V AC 50/60 Hz		
	LANGUAGE DISPLAY	Japanese/English is selectable from the set display		NORMAL OPERATING CONDITION	Power Voltage	85 to 264 V AC	
					Ambient temp.	0 - 50°C	
			Ambient humidity	20 to 80%RH			
ALARM FUNCTION	No. OF SETTING	Up to 4 setting is possible for every input channel	OPTION	POWER CONSUMPTION	Less than 15VA (100V AC) Less than 25VA (240V AC)		
	ALARM OUTPUT	1-point (Open collector output)		DI/DO CARD	DI/DO	Input (Non-voltage contact) 9-points Output (open collector) 12-points	
	CONTACT STD.	30V DC 20mA		COMMUNICATION	RS-485	MODBUS RTU Protocol	

## Dimensions



## ORDER INFORMATION (MODEL CONFIGURATION)

TRM20   A ① ② ③ T

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 SEPARATELY

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.



**TOHO ELECTRONICS INC.**

Head Office: 2-4-3 Nishihashimoto, Midori-Ku, Sagami-hara-Shi,

Kanagawa 252-0131 Japan

Phone: +81-42-700-2100 FAX: +81-42-700-2112

E-Mail: [overseas@toho-inc.co.jp](mailto:overseas@toho-inc.co.jp)

Web site: <https://www.toho-inc.com/english/index.html>

● Specifications are subject to change without notice.

Note: The color printed in this catalog may be different from actual color.