



Line Seiki

Product Catalog

Ver.1

Electronic Counter /

Electromagnetic Counter /

Mechanical Counter /

Length Measuring Counter /

Pulse Generator /

Tachometer /

Thermometer /



Company Overview

"As long as humans live counting will be a necessity." ~ Line Seiki

Human progress and development over the years has been measured by numbers. Statistics are as vital to the ordinary student or hobbyist as they are to experienced professionals. For 60 years now, Line Seiki has served this everyday need to count, measure, track, and monitor various activities through its wide variety of industrial counters, measuring instruments, and sensors.



From its humble beginnings as a counter maker in post-World War II Japan, Line Seiki has grown to become a global leader in industrial, professional, and even personal counter-serving the needs of markets across the Asia Pacific, Europe, and the Americas. As a pioneer in counting technology, it has perfected the science and art of measurements while keeping up with the latest counting technology. Wherever you will see humans and their need to count and measure, you will see Line Seiki.

Now with five locations throughout the Asia Pacific and a vast network of distributors globally, Line Seiki manufactures and supplies product models for just about every field or industry. Our products include the most advanced electronic, electro-mechanical and mechanical counters, tachometers, digital thermometers, tally counters, sensors, and encoders as well as other customized products. Applications range from factory automation to speed and time measurements for hobbyists, to everyday household uses. Moreover, many of our products are commonly used in original machine manufacture (OEM), including those found in vending machines, gaming machines, textile machines, plastic injection machines, metal stamping machines, and so on.

Our core business, above all, is product development. We fuse decades of experience with the latest advances in technology to engage in technological cooperation and joint product development with other world leaders in the field of counting. So as long as humans live, so will Line Seiki.

Group Company

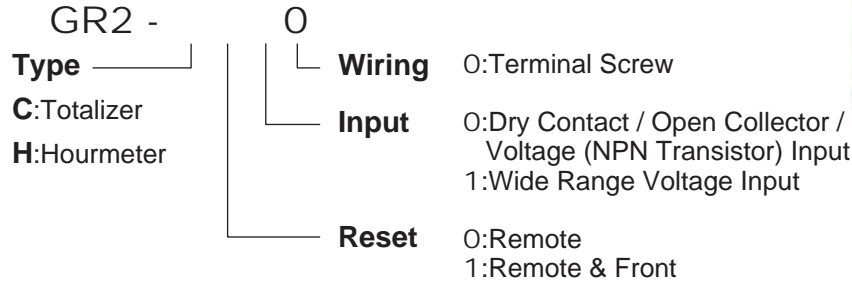
- Line Seiki Co., Ltd. (Japan)
- Line Seiki Philippines Inc. (Philippines)
- Line Seiki Asia Pacific Co., Ltd. (Philippines)
- LS Instrumentation Sales & Services (Philippines)
- Taiwan Line Seiki Co., Ltd. (Taiwan)
- Korea Line Seiki Co., Ltd. (Korea)



History

History	
Feb, 1949.	A trading company handling measuring tools was inaugurated in Tokyo, Japan.
Apr, 1954.	Line Seiki Co., Ltd. was incorporated in Tokyo, Japan.
May, 1985.	Shirakawa factory was established in Fukushima-Ken, Japan.
Jun, 1988.	Korea Line Seiki was established in Seoul, Korea.
Jun, 1988.	Taiwan Line Seiki was established in Taipei, Taiwan.
Aug, 1995.	Line Seiki Philippines, Inc. was established in Cavite, the Philippines.
Jun, 1999.	Line Seiki Asia Pacific, Inc. was established in the Philippines.
Jul, 2008.	LS Instrumentation Sales & Services was established in Quezon City, the Philippines.

MODELS



SPECIFICATIONS

Type	GR2-C:Totalizer	GR2-H:Hourmeter
Display	7segment LCD 7digits 0.31inch [8mm] (H)	
No. of Digits	0 ~ 9999999	0.0 ~ 999999.9
Spec of Input	Max.Count Speed GR2-C 00 30Hz GR2-C 10 20Hz	Resolution 1 Count per 1/10 Hour

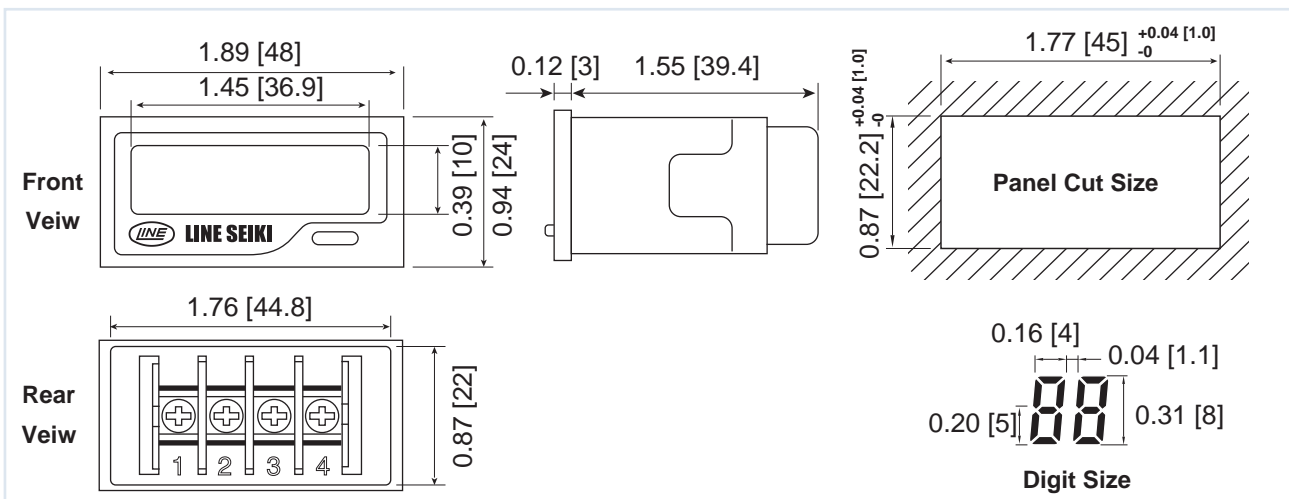
MECHANICAL / ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	14 ~ 131°F [-10 ~ 55](Non-freezing)
Storage Temp.	-4 ~ 149°F [-20 ~ 65](Non-freezing)
Operating Humidity	25 ~ 85%RH (Non-condensing)
Vibration / Shock Resistance	Operation : Double Amplitude 0.01 inch [0.3mm] Frequency 10 ~ 55Hz X.Y.Z. Axis 3.94in/s ² [100mm/s ²] Storage : Double Amplitude 0.03 inch [0.75mm] Frequency 10 ~ 55Hz X.Y.Z. Axis 11.8in/s ² [300mm/s ²]
Protection of Front Panel	IP54
Weight	1.8oz. [50g] (Battery Included)
Wiring	M3 Terminal Screw

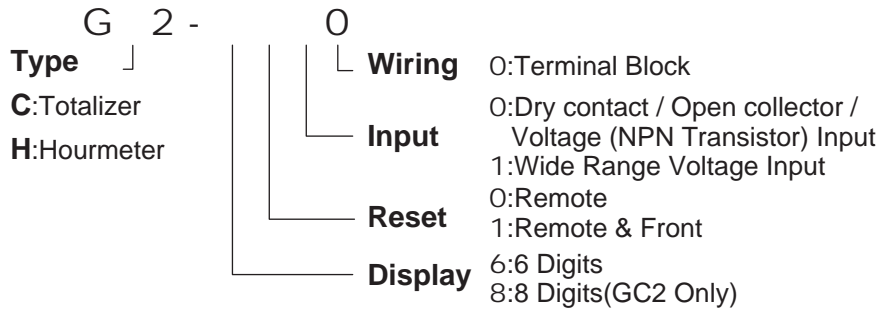
ELECTRICAL SPECIFICATIONS

Input	Dry Contact / Open Collector / Voltage (NPN Transistor) L:<0.8VDC H:2 ~ 30VDC Wide Range Voltage L:0 ~ 10VDC/AC H:20 ~ 250VDC/AC	Sink Current : 8 μ A Input Impedance : 300k * 50/60 Hz Convertible
Reset	Front Reset Remote Reset Dry Contact / Open Collector / Voltage (NPN Transistor) L:<0.8VDC H:2 ~ 30VDC Wide Range Voltage L:0 ~ 10VDC/AC H:20 ~ 250VDC/AC	Sink Current : 8 μ A Input Impedance : 300k * 50/60 Hz Convertible
Reset Pulse Width	6ms MIN.	
Power Source	Lithium battery installed , Battery life 7 years (Replaceable)	
Compliance	CE, RoHS, UL	

DIMENSIONS : inch [mm]



MODELS



SPECIFICATIONS

Type	GC2:Totalizer	GH2:Hourmeter
Display	7segment LCD 6 / 8digits 0.42inch [10.6mm] (H)	7segment LCD 6digits 0.43inch [10.8mm] (H)
No. of Digits	0 ~ 999999 / 0 ~ 99999999	0.0 ~ 99999.9
Spec of Input	Max.Count Speed G 2- 00 30Hz G 2- 10 20Hz	Resolution 1 Count per 1/10 Hour

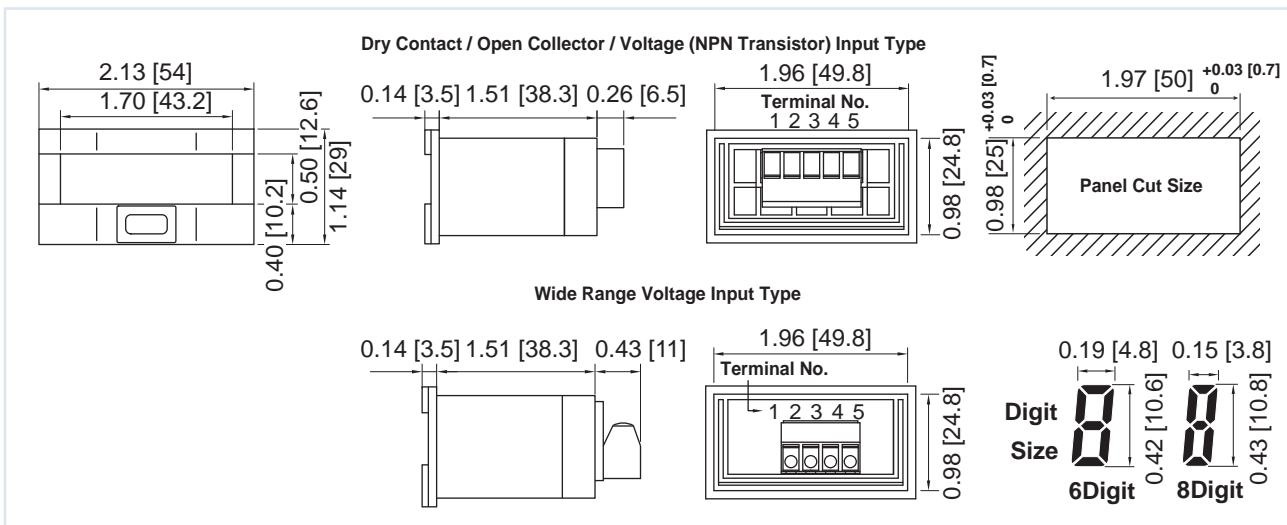
MECHANICAL / ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	14 ~ 131°F [-10 ~ 55°C](Non-freezing)
Storage Temp.	-4 ~ 149°F [-20 ~ 65°C](Non-freezing)
Operating Humidity	25 ~ 85%RH (Non-condensing)
Vibration / Shock Resistance	Operation : Double Amplitude 0.01 inch[0.3mm] Frequency 10 ~ 55Hz X.Y.Z. Axis 3.94in/s ² [100mm/s ²] Storage : Double Amplitude 0.03 inch[0.75mm] Frequency 10 ~ 55Hz X.Y.Z. Axis 11.8in/s ² [300mm/s ²]
Protection of Front Panel	IP54
Weight	2.1oz. [60g] (Battery Included)
Wiring	Terminal type:14-22 AWG lead wires to be connected by screws.

ELECTRICAL SPECIFICATIONS

Input	Dry Contact / Open Collector / Voltage (NPN Transistor) L:<0.8VDC H:2 ~ 30VDC Wide Range Voltage L:0 ~ 10VDC/AC H:20 ~ 250VDC/AC	Sink Current : 8 μ A Input Impedance : 300k * 50/60 Hz Convertible
Reset	Front Reset Remote Reset Dry Contact / Open Collector / Voltage (NPN Transistor) L:<0.8VDC H:2 ~ 30VDC Wide Range Voltage L:0 ~ 10VDC/AC H:20 ~ 250VDC/AC	Sink Current : 8 μ A Input Impedance : 300k * 50/60 Hz Convertible
Reset Pulse Width	6ms MIN.	
Power Source	Lithium battery installed , Battery life 7 years (Replaceable)	
Compliance	CE, RoHS, UL	

DIMENSIONS : inch [mm]



MODELS

E48 - 0

Preset
 1:1 Level Preset
 2:2 Level Preset
 3:1 Level Preset
 + Prewarn

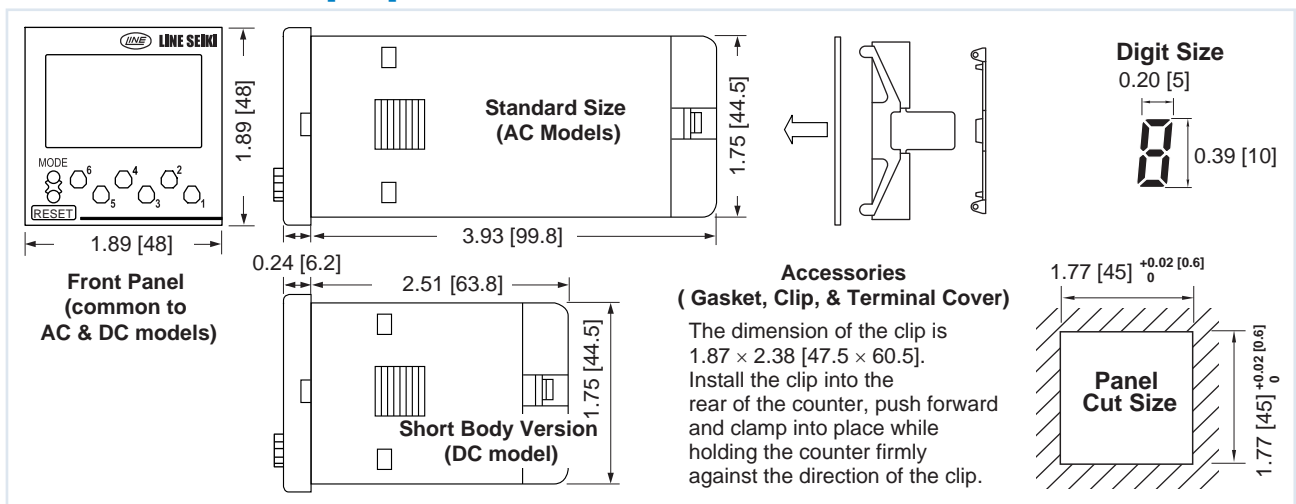
Power Source 1:100~240VAC
 2:12~24VDC(E48-102 only)



SPECIFICATIONS

Model	E48-101	E48-102	E48-201	E48-301
Display	Blue STN LCD with white backlight ; Digit Size : 0.39 × 0.20inch [10 × 5mm]			
No. of Digits	6			
No. of Digit Setting Keys	6			
Preset Level	1 Level	1 Level	2 Level	1 Level Preset + Prewarn
Setting Range	-99999 ~ 999999			
Prewarn Feature	-	-	-	0~999999
Input Mode	Contact / Open Collector / Voltage (Selectable)			
Input Signal	Open Collector (Sink Current approx. 11mA) L : 0 ~ 4V / Voltage (Input Impedance 7KΩ) L : 0 ~ 4V H: 6 ~ 30V (Available to duplex wire DC sensor.)			
Count Speed	30Hz, 1kHz, 5kHz, 10kHz (Selectable)			
Count Mode	Add / Subtract (Add/Subtract individual input, 90° quadrature input)			
Count Range	-99999 ~ 999999			
Prescale	0.001 ~ 99.999 (0 setting is not available)			
Decimal Point Position	0.0, 0.00, 0.000, No Decimal Point			
Write	-99999 ~ 999999			
Reset	Front Panel Reset, Remote Reset , Auto-reset			
Remote Reset Time	2ms or 20ms (Selectable)			
Operation Mode	Modes A, B, C, D, E, F, G can be selected. Except for standard output, Mode A only is available for other output modes.			
Memory	E ² PROM (10 years, can be used 100,000 times)			
Output	Relay Output (Main: 1c, Sub: 1a) : load of 250VAC 5A / 30VDC 5A Maximum			
Output Delay	Relay Output /30Hz: 17ms MAX. ; 1kHz,5kHz,10kHz: 12ms MAX.			
Output Mode	1 Level Preset: Standard, Equal, Lower Limit, Upper Limit 2 Level Preset: Standard, Equal, Upper-Lower Limit, Upper-Upper Limit 1 Level Preset + Prewarn: Standard, Equal			
Output Time	Standard Output : One Shot (10 ~ 9990ms) or HOLD or HOLD 1 or HOLD 2 / Equal, Upper, Lower Output : Latched only when requirements are full			
Error Display	In 90° quadrature mode, error message will be displayed on the LCD if the count range is exceeded (overflow error : $\sigma-Er$ underflow error : $\mu-Er$)			
Power Supply	100~240VAC -15%, +10% 50/60 Hz Convertible	12~24VDC -15%, +10%	100~240VAC -15%, +10%	50/60 Hz Convertible
Sensor Power Source	12VDC 100mA	-	12VDC 100mA	12VDC 100mA
Power Consumption	Approx. 7VA for 240VAC	Approx. 2.5W for 24VDC	Approx. 7VA for 240VAC	Approx. 7VA for 240VAC
Operating Temperature	14 ~ 122°F [-10 ~ 50°C] (Non-freezing) 45~85%RH (Non-condensing)			
Altitude	2,000m max.			
Installation Environment	Over-voltage Category II, Pollution Degree 2 (IEC61010-1)			
Front Panel	IP54 (Panel Surface)			
Compliance	CE, RoHS, UL in process			
Weight	5.6oz. [160g]	4.2oz. [120g]	5.6oz. [160g]	5.6oz. [160g]

DIMENSIONS : inch [mm]



MODELS

G48 - 3

Preset _____
 0:1 Level Preset
 1:2 Level Preset
 2:1 Level Preset
 + Prewarn

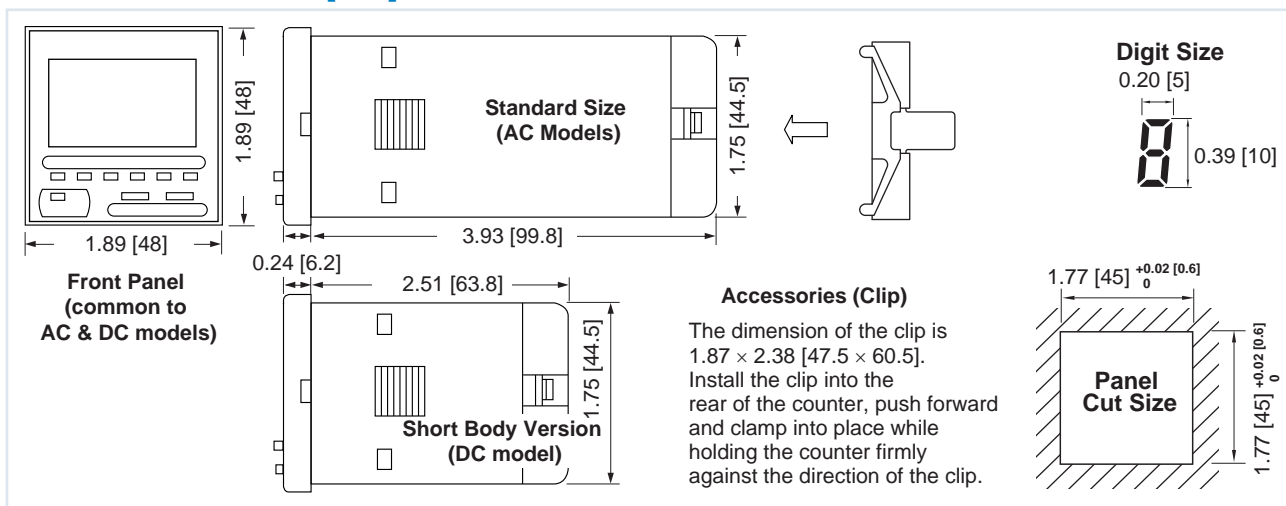
Power Source 5:100~240VAC
 6:12~24VDC(G48-306 only)



SPECIFICATIONS

Model	G48-305	G48-306	G48-315	G48-325
Display	LCD with backlight ; Digit Size : 0.39 × 0.20inch [10 × 5mm]			
No. of Digits	6			
No. of Digit Setting Keys	6			
Preset Level	1 Level	1 Level	2 Level	1 Level Preset + Prewarn
Setting Range	-99999 ~ 999999			
Prewarn Feature	-	-	-	0~999999
Input Mode	Contact / Open Collector / Voltage (Selectable)			
Input Signal	Open Collector (Sink Current approx. 10mA) L : 0 ~ 4V / Voltage (Input impedance 7KΩ) L : 0 ~ 4V H: 6 ~ 30V (Available to duplex wire DC sensor.)			
Count Speed	30Hz, 1kHz, 5kHz (Selectable)			
Count Mode	Add / Subtract (Add/Subtract individual input, 90° quadrature input)			
Count Range	-99999 ~ 999999			
Prescale	0.001 ~ 99.999 (0 setting is not available)			
Decimal Point Position	0.0, 0.00, 0.000, No Decimal Point			
Write	-99999 ~ 999999			
Reset	Front Panel Reset, Remote Reset , Auto-reset			
Remote Reset Time	2ms or 20ms (Selectable)			
Operation Mode	Modes A, B, C, D, E, F, G can be selected. Except for standard output, Mode A only is available for other output modes.			
Memory	E ² PROM (10 years, can be used 100,000 times)			
Output	Relay Output (1a) : load of 250VAC 5A / 30VDC 5A Maximum			
Output Delay	Relay Output /30Hz: 20ms MAX. ; 1kHz,5kHz: 7ms MAX.			
Output Mode	1 Level Preset: Standard, Equal, Lower Limit, Upper Limit 2 Level Preset: Standard, Equal, Upper-Lower Limit, Upper-Upper Limit 1 Level Preset + Prewarn: Standard, Equal			
Output Time	Standard Output : One Shot (10 ~ 9990ms) or HOLD or HOLD 1 or HOLD 2 / Equal, Upper, Lower Output : Latched only when requirements are full			
Error Display	In Add/subtract mode, error message will be displayed on the LCD if the count range is exceeded (overflow error : $\alpha-Er$ underflow error : $\mu-Er$)			
Key Lock	Key operation can be disabled at 4 protection levels (L1, L2, L3, L4) by selecting in Program Mode and shorting key lock terminals.			
Power Supply	100~240VAC -15%, +10% 50/60 Hz Convertible	12~24VDC -15%, +10%	100~240VAC -15%, +10% 50/60 Hz Convertible	100~240VAC -15%, +10% 50/60 Hz Convertible
Sensor Power Source	12VDC 100mA	-	12VDC 100mA	12VDC 100mA
Power Consumption	Approx. 7VA for 240VAC	Approx. 1.2W for 24VDC	Approx. 7VA for 240VAC	Approx. 7VA for 240VAC
Operating Temperature	14 ~ 122°F [-10 ~ 50°C] (Non-freezing) 45~85%RH (Non-condensing)			
Front Panel	IP54 (Panel Surface)			
Compliance	CE			
Weight	6.0oz. [170g]	3.9oz. [110g]	6.0oz. [170g]	6.0oz. [170g]

DIMENSIONS : inch [mm]



MODELS

MZ -

Digit

6:6 digits

7:7 digits

Voltage

12VDC

24VDC

Mounting & Connection

00:Rear / Leadwire

20:Base (Horizontal) / Leadwire

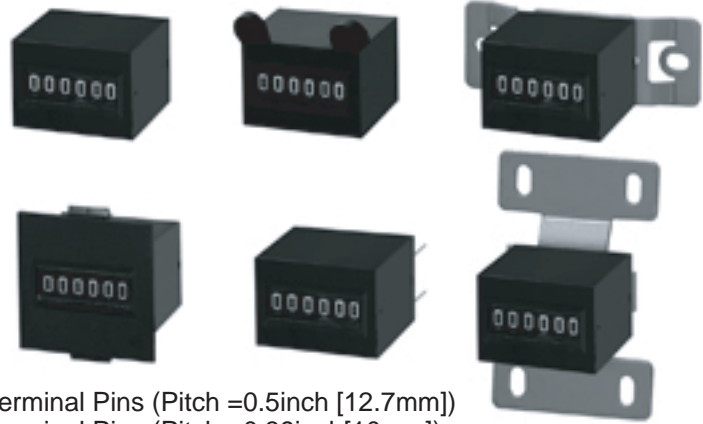
30:Behind Panel (Screw) / Leadwire

40:Base (Vertical) / Leadwire

70:Panel (Snap-in) / Leadwire

02:Rear (Mounting Pitch : 0.59inch [15mm]) / Terminal Pins (Pitch =0.5inch [12.7mm])

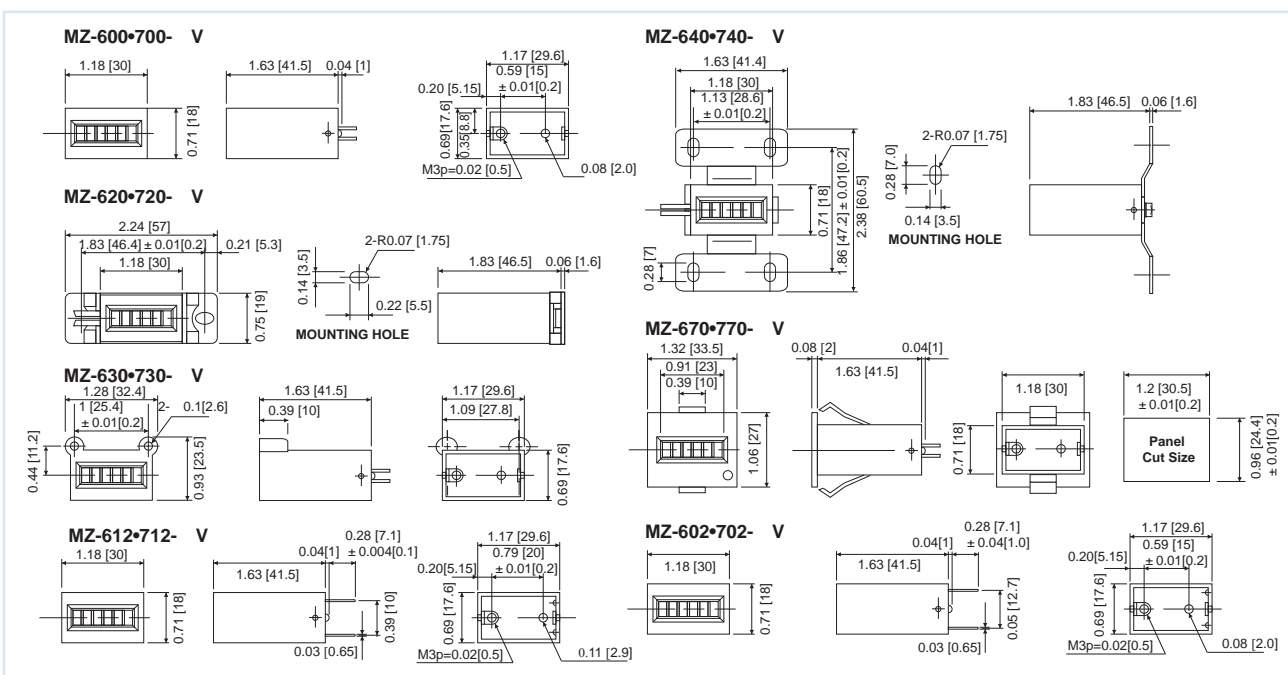
12:Rear (Mounting Pitch : 0.79inch [20mm]) / Terminal Pins (Pitch =0.39inch[10mm])



SPECIFICATIONS

Display	6digits : 0.12 × 0.08inch [3.0 × 2.0mm] / 7digits : 0.12 × 0.06 [3.0 × 1.6] (white on black background)
Power Source	12VDC, 24VDC
Voltage Fluctuation	-15% ~ +10%
Power Consumption	1.2W
Continuous Energizing	Permissible
Counting Method	One Pulse - One Count (Energizing - ½ count, Unenergized - ½ count)
Counting Speed	10Hz, 20Hz (Maximum)
Pulse Width	50ms (Minimum)
Make (Duty)	1 : 1
Count Life	6digits : 3,000,000 Counts Minimum / 7digits : 10,000,000 Counts Minimum
Reset	None
Connection	Lead Wire / PCB Type : Pin
Operating Humidity	23 ~ 104°F [-5 ~ +40°C] (Non-freezing)
Operating Temperature	85%RH Maximum (Non-condensing)
Test Voltage	1,500VAC for 1 Minute
Insulation Resistance	50MΩ Minimum (500VDC Megger)
Vibration	Endurance : 16.7 Hz, Width : Double Amplitude 0.16inch (4mm) Mismovement : 10 ~ 55 Hz, Width : Double Amplitude 0.02inch(0.5mm)
Shock	Endurance : 30G Mismovement : 5G
Construction	Cover : Plastic (Noryl UL94V-1,Black) / Base: Steel
Weight	1.06oz. [30g]
Compliance	CE, RoHS, UL

DIMENSIONS : inch [mm]



MODELS

ME - 60 OUL - -

Digit

6:6 digits

Voltage

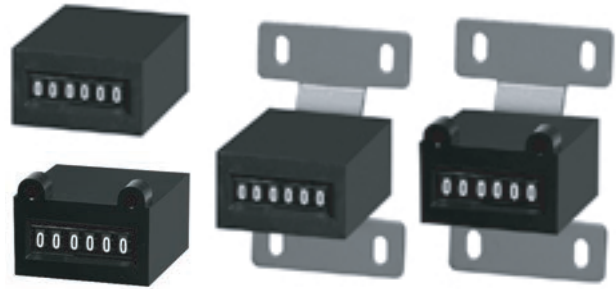
115VAC
24VDC

Accessory

Blank:None
B1:with Base Plate

Mounting

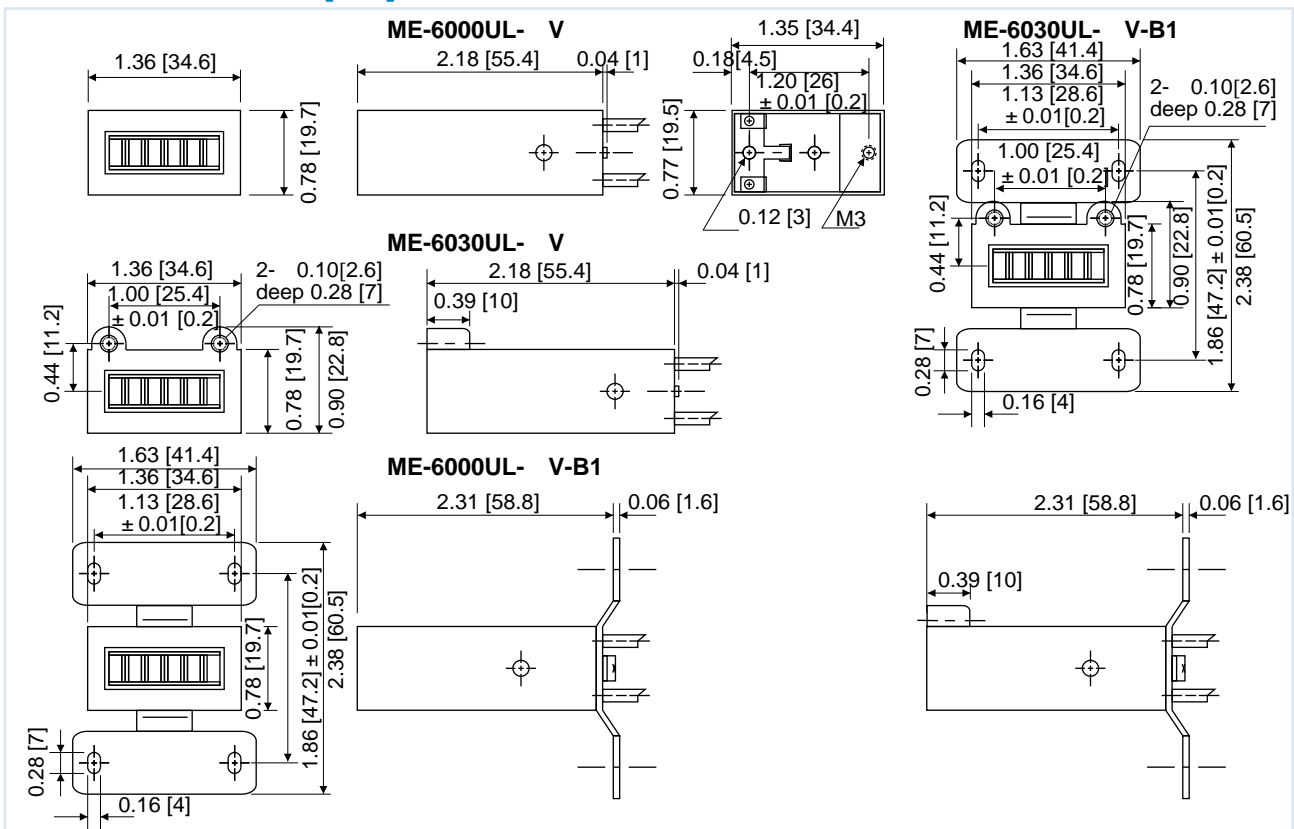
0:Rear
3:Behind Panel (Screw)



SPECIFICATIONS

Display	0.14 × 0.07inch [3.5 × 1.8mm] (white on black background)
Power Source	115VAC 50/60 Hz Convertible / 24VDC
Voltage Fluctuation	-15% ~ +10%
Power Consumption	1.1 VAAC / 1.2WDC
Continuous Energizing	Permissible
Counting Method	One Pulse - One Count (Energizing - ½ count, Unenergized - ½ count)
Counting Speed	10Hz (Maximum)
Pulse Width	50ms (Minimum)
Make (Duty)	1 : 1
Count Life	3,000,000 Counts Minimum
Reset	None
Connection	Lead Wire
Operating Humidity	23 ~ 104°F [-5 ~ +40°C] (Non-freezing)
Operating Temperature	85%RH Maximum (Non-condensing)
Test Voltage	1,500VAC for 1 Minute
Insulation Resistance	50MΩ Minimum (500VDC Megger)
Vibration	Endurance : 16.7 Hz, Width, Double Amplitude 0.16inch [4mm] Mismovement : 10 ~ 55 Hz, Double Amplitude 0.02inch [0.5mm]
Shock	Endurance : 30G / Mismovement : 5G
Construction	Cover : Plastic (Noryl UL94V-1,Black) / Base: Steel
Weight	ME-6000UL- V : 1.69oz.[50g], ME-6000UL- V-B1 : 2.03oz.[60g], ME-6030UL- V : 1.76oz.[52g], ME-6030UL- V-B1 : 2.10oz.[62g]
Compliance	CE in process, RoHS, UL

DIMENSIONS : inch [mm]



MODELS

MCU - 6 UL - -

Digit

6:6 digits

Mounting Voltage

S:Rear 115VAC

P:Panel 24VDC (Screw)

Accessory

Blank:None

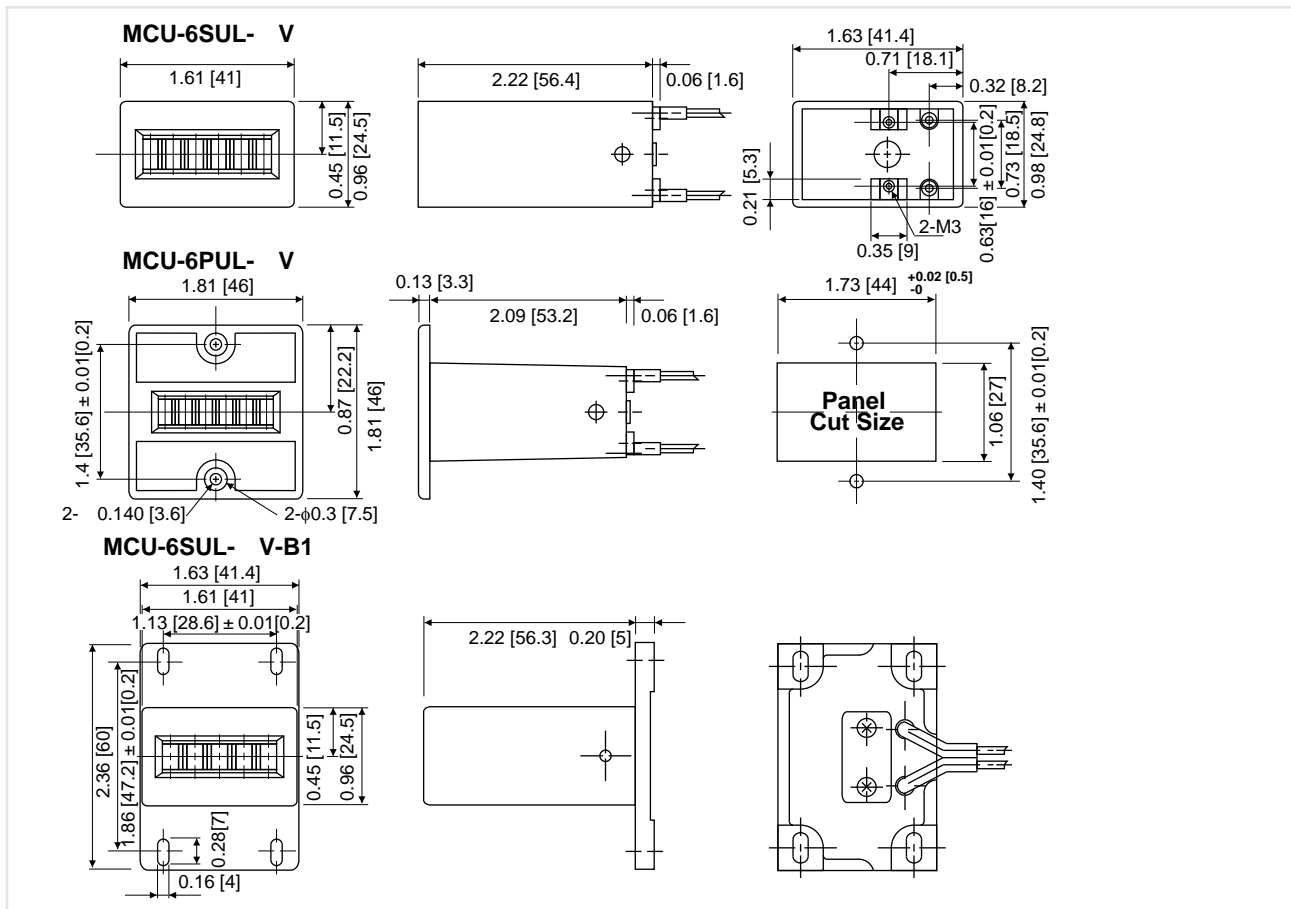
B1:with Base Plate (only S Type)



SPECIFICATIONS

Display	0.17 × 0.10inch [4.3 × 2.6mm] (white on black background)
Power Source	115VAC 50/60 Hz Convertible / 24VDC
Voltage Fluctuation	±10%
Power Consumption	2.3 ~ 4.2VAAC / 1.7 ~ 2.3WDC
Continuous Energizing	AC : less than 5 minutes / DC : Permissible
Counting Method	One Pulse - One Count (Energizing - ½ count, Unenergized - ½ count)
Counting Speed	10Hz (Maximum)
Pulse Width	50ms (Minimum)
Make (Duty)	1 : 1
Count Life	10,000,000 Counts Minimum
Reset	None
Connection	Lead Wire 9.84inch [250mm]
Operating Humidity	23 ~ 104°F [-5 ~ +40°C] (Non-freezing)
Operating Temperature	85%RH Maximum (Non-condensing)
Test Voltage	1,500VAC for 1 Minute
Insulation Resistance	50MΩ Minimum (500VDC Megger)
Vibration	Endurance : 16.7 Hz, Width, Double Amplitude 0.16inch [4mm] Mismovement : 10 ~ 55 Hz, Double Amplitude 0.02inch [0.5mm]
Shock	Endurance : 30G / Mismovement : 5G
Construction	Cover : Plastic (Noryl UL94V-1,Black) / Base: Plastic
Weight	MCU-6SUL- V : 2.87oz. [85g], MCU-6PUL- V : 3.38oz. [100g], MCU-6SUL- V-B1 : 3.70oz. [105g]
Compliance	CE in process, RoHS, UL

DIMENSIONS : inch [mm]



MODELS

MCF - XUL -

Digit Voltage Mounting

4:4 digits 115VAC X:Panel (Clip)

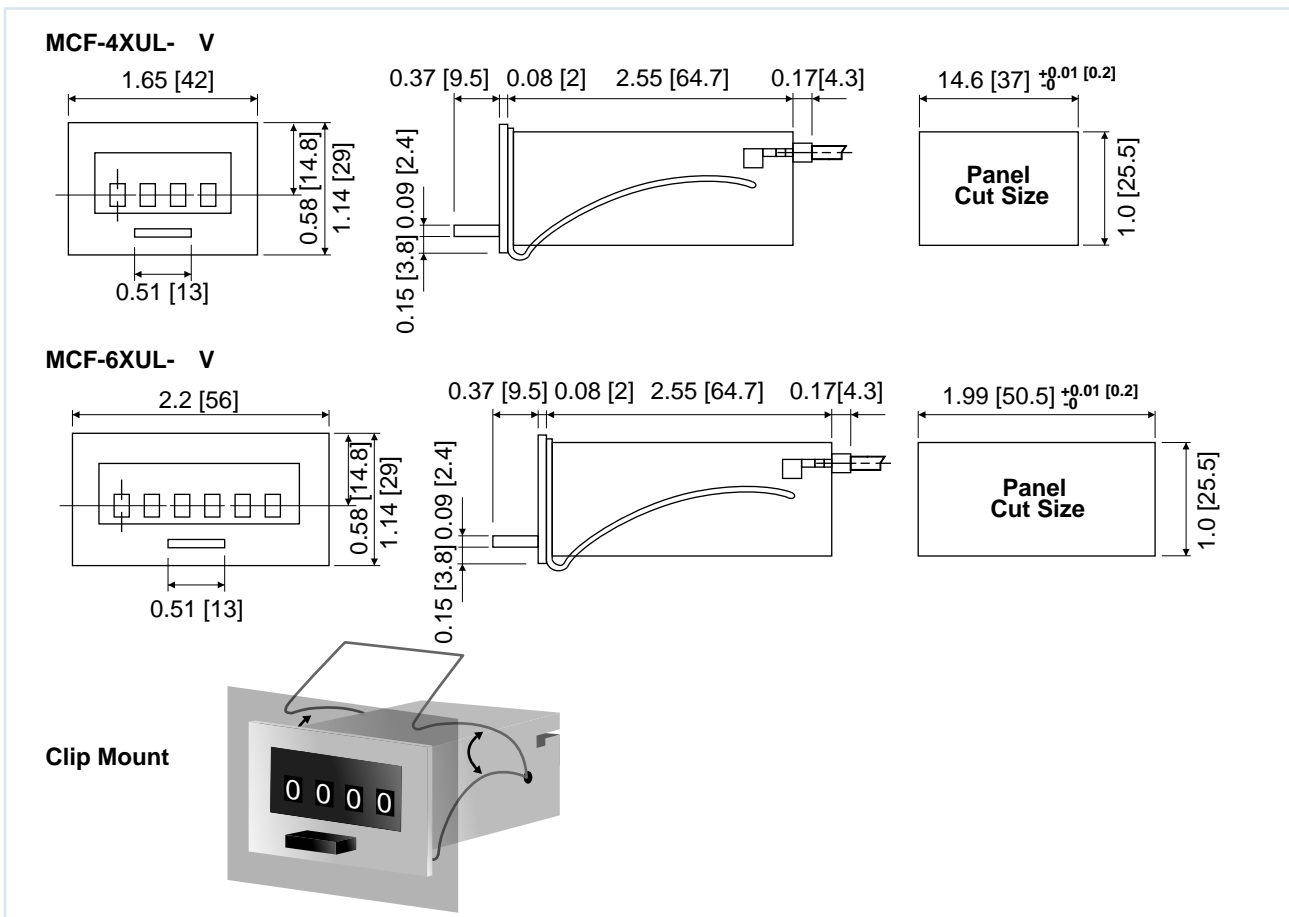
6:6 digits 24VDC







SPECIFICATIONS

Display	0.16 × 0.09inch [4.0 × 2.4mm] (white on black background)
Power Source	115VAC 50/60 Hz Convertible / 24VDC
Voltage Fluctuation	-15% ~ +10%
Power Consumption	3 ~ 4VAAC / 2 ~ 3WDC
Continuous Energizing	Permissible
Counting Method	One Pulse - One Count (Energizing - ½ count, Unenergized - ½ count)
Counting Speed	10Hz (Maximum)
Pulse Width	50ms (Minimum)
Make (Duty)	1 : 1
Count Life	10,000,000 Counts Minimum
Reset	Manual Reset (Push Button)
Connection	Lead Wire 9.84inch [250mm]
Operating Humidity	23 ~ 104°F [-5 ~ +40°C] (Non-freezing)
Operating Temperature	85%RH Maximum (Non-condensing)
Test Voltage	1,500VAC for 1 Minute
Insulation Resistance	50MΩ Minimum (500VDC Megger)
Vibration	Endurance : 16.7 Hz, Double Amplitude 0.16inch [4mm] Mismovement : 10 ~ 55 Hz, Double Amplitude 0.02inch [0.5mm]
Shock	Endurance : 30G / Mismovement : 5G
Construction	Cover : Plastic (Noryl UL94V-1, Gray)
Weight	MCF-4XUL- V : 3.38oz. [100g], MCF-6XUL- V : 4.06oz. [120g]
Compliance	CE in process, RoHS, UL

DIMENSIONS : inch [mm]



MODELS

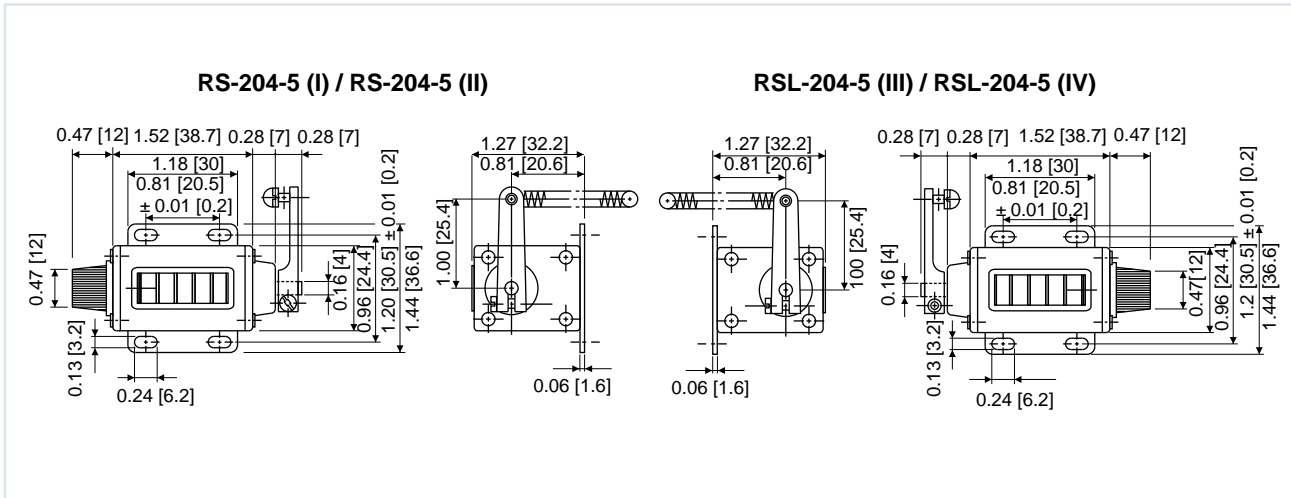
	Type (I)	Type (II)	Type (III)	Type (IV)
Models	RS-204-5(I)	RS-204-5(II)	RS-204-5(III)	RS-204-5(IV)
Rotation				
	Right Shaft Top-going	Right Shaft Top-coming	Left Shaft Top-going	Left Shaft Top-coming



SPECIFICATIONS

Type	Ratchet : Adds 1 count for each 40°~ 45° actuation of lever.
Digits	5
Figures	0.19 × 0.09inch [4.8 × 2.4mm]
Count Speed	200 ~ 500 Counts / Minute
Measuring Range	0 ~ 99999
Reset	Rotary Knob
Weight	Approx. 2.12oz. [60g]
Operating Temperature	23 ~ 104°F [-5 ~ +40°C] (Non-freezing)
Operating Humidity	85%RH Maximum (Non-condensing)
Compliance	RoHS

DIMENSIONS : inch [mm]



MECHANICAL COUNTER OPERATION

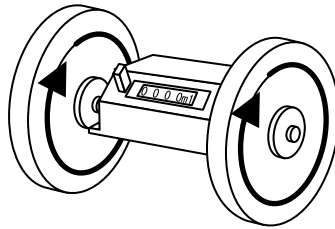
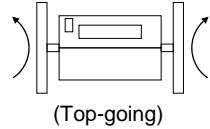
Adds 1 count for each 40°~ 45° actuation of lever



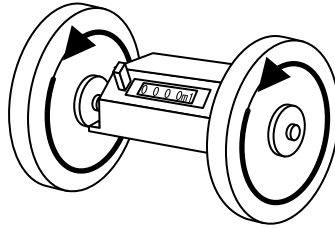
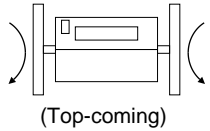
MODELS

RY Series

RY1-3:10-5 (I)
RY1-3:100-5 (I)

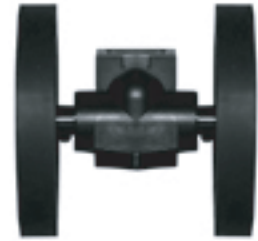
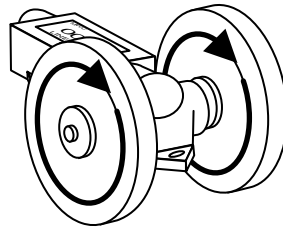
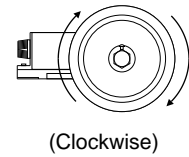


RY1-3:10-5 (II)
RY1-3:100-5 (II)



MWC Series

MWC-3:1-5 (I)
MWC-3:10-5 (I)



SPECIFICATIONS

Models	Figures	Rotations for Additive	Unit of Measurements	Maximum Count Speed	Torque	Weight
RY1-3:10-5 (I)-YDP	5	Top-going	0.1 yard	300 yard/min	2.08ozf-in [150gcm]	26oz.[730g]
RY1-3:10-5 (II)-YDP	5	Top-coming	0.1 yard	300 yard/min	2.08ozf-in [150gcm]	26oz.[730g]
RY1-3:100-5 (I)-YDP	5	Top-going	0.01 yard	30 yard/min	3.47ozf-in [250gcm]	26oz.[730g]
RY1-3:100-5 (II)-YDP	5	Top-coming	0.01 yard	30 yard/min	3.47ozf-in [250gcm]	26oz.[730g]
MWC-3:1-5 (I)-YP	5	Clockwise	1 yard	300 yard/min	2.08ozf-in [150gcm]	19oz.[545g]
MWC-3:10-5 (I)-YP	5	Clockwise	0.1 yard	30 yard/min	2.08ozf-in [150gcm]	19oz.[545g]

2 pieces of wheels are furnished as standard accessories. Please pay attention to the copy products in the market.

Color of Figure

RY1-3:10-5 (I)-YDP



RY1-3:10-5 (II)-YDP

First figure is Yellow on Black background.
Others are White on Black background.

RY1-3:100-5 (I)-YDP



RY1-3:100-5 (II)-YDP

First and second figure are Yellow on Black background.
Others are White on Black background.

MWC-3:1-5 (I)-YP



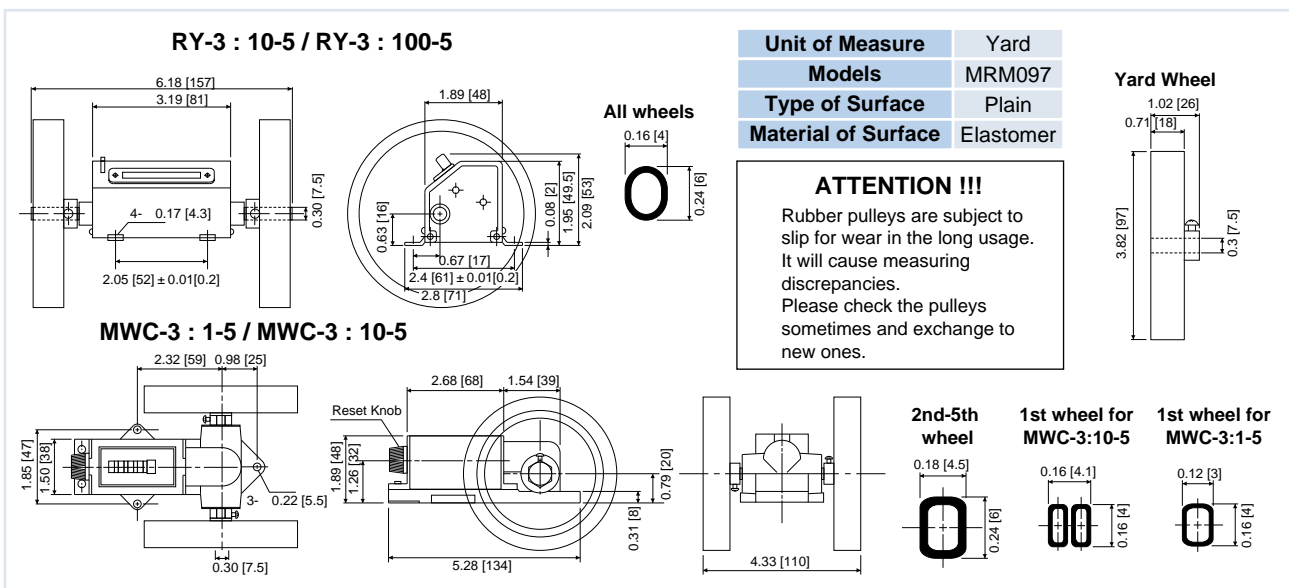
MWC-3:10-5 (I)-YP



All figures are White on Black background.

Operating Temperature 23~104°F [-5~+40°C] **Operating Humidity** 85%RH Maximum **Remarks** Non-Freezing, Non-Condensing

DIMENSIONS : inch [mm]



MODELS

Models	Sensor	Unit of Measurements	Maximum Count Speed	Weight	Torque	Proper Counter
CT1-3:1-YP	Microswitch	1 yard	240 yard/min	25oz. [700g]	2.12ozf-in [153gcm]	Electronic Counter
CT1-3:10-YP		0.1 yard	24 yard/min	25oz. [710g]		
CT1-3:1A-YP	Photoelectronic Sensor, 1 Non-contact Output	1 yard	700 yard/min	26oz. [730g]		Electronic Counter
CT1-3:10A-YP		0.1 yard	500 yard/min	26oz. [730g]		
CT1-3:100A-YP		0.01 yard	250 yard/min	26oz. [740g]		
CT1-3:1000A-YP		0.001 yard	100 yard/min	28oz. [790g]		
CT1-3:1R-YP	Photoelectronic Sensor, 2 Non-contact Outputs (90° Quadrature Output)	1 yard	700 yard/min	26oz. [740g]		Bidirectional Electronic Counter
CT1-3:10R-YP		0.1 yard	500 yard/min	26oz. [740g]		
CT1-3:100R-YP		0.01 yard	250 yard/min	26oz. [750g]		
CT1-3:1000R-YP		0.001 yard	100 yard/min	28oz. [780g]		

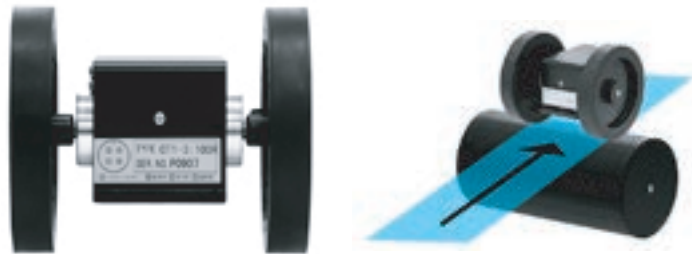
Factory-installed Option : Open collector output is available in 1 and 2 non-contact outputs models.
"C" should be added to the model number. (Ex.) CT1-3:10AC-YP

SPECIFICATIONS

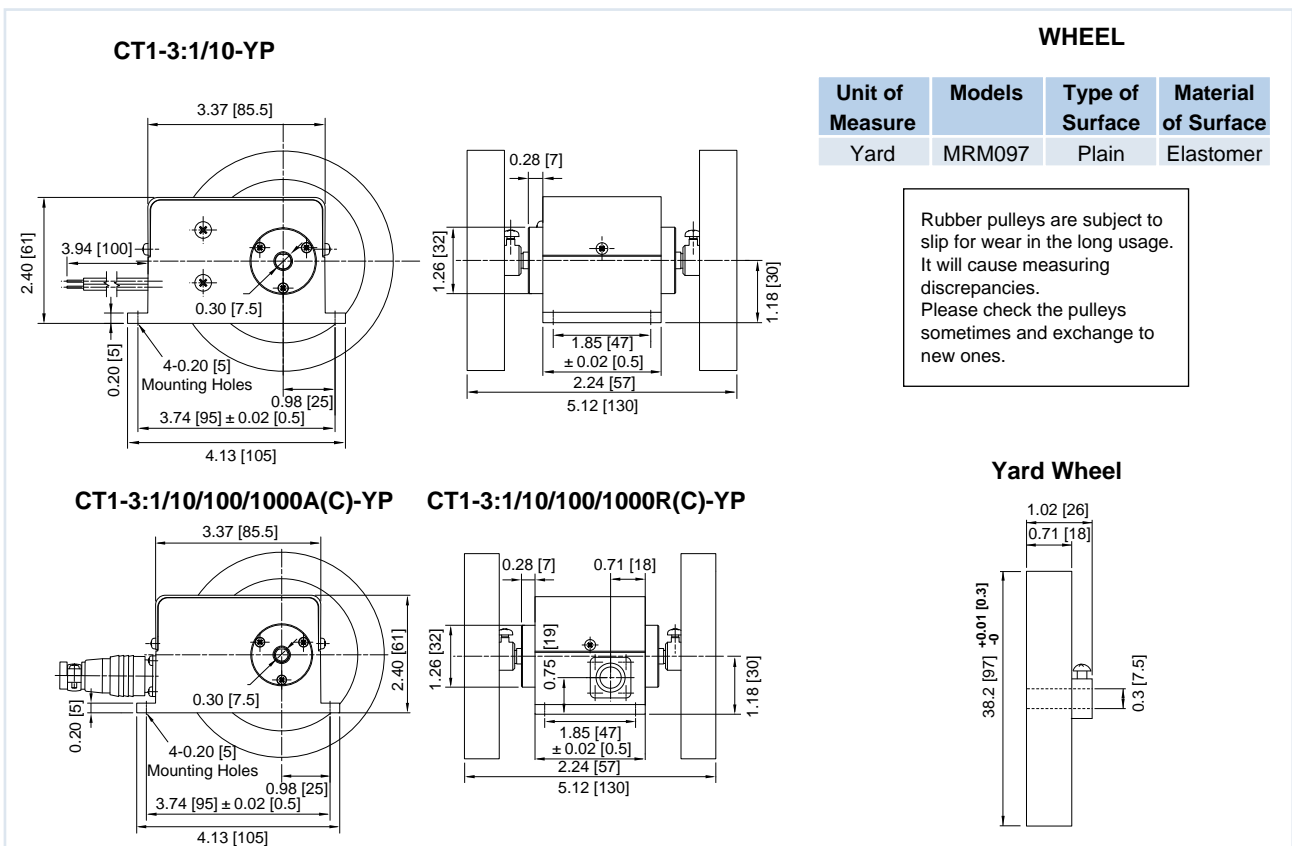
Models	Output	Power Source	Current Consumption	Output Impedance	Maximum Load Current
CT1-3:1/10-YP	1 Output	Microswitch Contact output, Capacity : 250VAC 10A , 125VDC 0.5A (Load)			
CT1-3:1/10/100A-YP	1 Output	5 ~ 24VDC ± 10%	35mA	3.9K	100mA
CT1-3:1000A-YP	1 Output	5 ~ 12VDC ± 10%	20mA	2K	20mA
CT1-3:1/10/100R-YP	2 Outputs (90 ° Quadrature)	5 ~ 24VDC ± 10%	70mA	3.9K	100mA
CT1-3:1000R-YP	2 Outputs (90 ° Quadrature)	5 ~ 12VDC ± 10%	40mA	2K	20mA

2 pieces of wheels are furnished as standard accessories. When you order, please specify type of wheels (meter or yard).
Please pay attention to the copy products in the market.

Operating Temperature	14 ~ 122°F [-10 ~ +50°C]
Operating Humidity	35~ 85%RH Maximum
Remarks	Non-Freezing, Non-Condensing
Compliance	CE in process



DIMENSIONS : inch [mm]



MODELS

Model	Type	Accessory
TM-7000K2	Basic Laser Type	TM-7000 Main Unit
	Non Contact Measuring	Contact Adaptor
TM-7010EK	Advanced Laser Type	TM-7010E Main Unit
	Non Contact Measuring	Contact Adaptor
TM-7020K2	Contact type	TM-7020 Main Unit
	Contact Measuring Only	

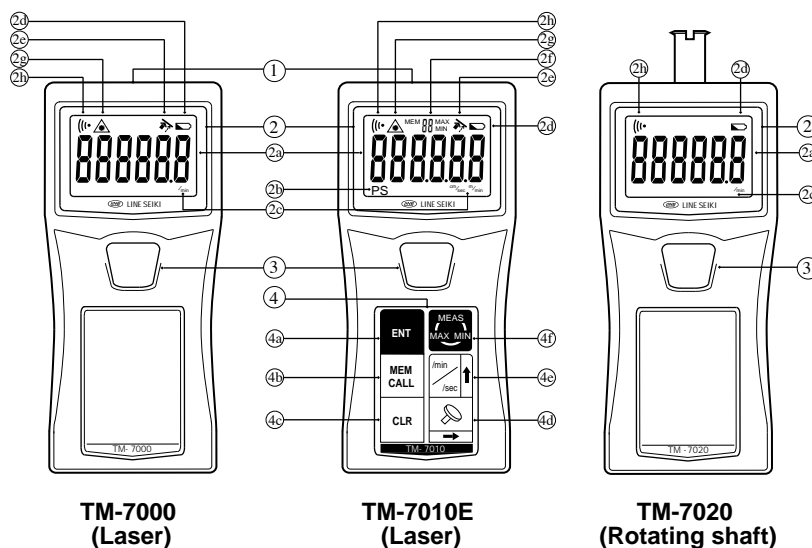
ZTM051 (Reflective Tape, 10pcs.)
ZTM004-SET (Rubber Tip, 3pcs.)
ZM4052 (Surface Speed Wheel (1/10 m) 1pc.)
C-7000 (Carrying Case)
AAA Alkaline Battery, 4pcs.
Instruction Manual
ZM4053 (Surface Speed Wheel (1/10 y) 1pc.)
* TM-7000K2 only
ZTM004-SET (Rubber Tip, 3pcs.)
ZM4052 (Surface Speed Wheel (1/10 m) 1pc.)
ZM4053 (Surface Speed Wheel (1/10 y) 1pc.)
C-7020 (Carrying Case)
AAA Alkaline Battery, 4pcs. Instruction Manual



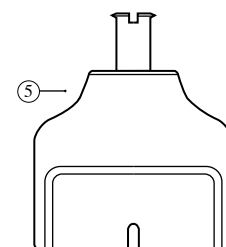
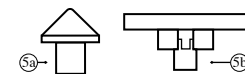
SPECIFICATIONS(Main Unit)

Model	TM - 7000	TM - 7010E	TM-7020	Model	TM - 7000	TM - 7010E	TM-7020
Measuring Range (Non Contact)	6.0~99999.9r/min	6.0~99999.9r/min	Prescale	-	After 3 minutes from last measurement or key operation		
Measuring Range (TM-7000/7010/7010E with Contact Adaptor)	6.0~15000.0r/min	0.10~1666.66r/sec	Mode	1.0~6000.0r/min	Measurement Data : until the next data is defined		
		0.10~250.00 r/sec	0.1 ~		Memory Data : same as battery life		
Resolution	0.1 r/min	0.60~1500.00 m/min	99999.9/min	Measuring Method	Non-contact Measurement : Using Main Unit (with Reflective Tape)		
		1.00~2500.00 cm/sec	0.01 ~		Contact Type Measurement : Using Contact Adaptor (with Rubber Tip or Surface Speed Wheel)		
Accuracy	± 0.01% ± 1 digit	0.65~1640.41 y/min	9999.99/sec	Optical System (Except TM-7020)	Light Source : Laser, Class 2		
		0.39~ 984.25 in/sec	0.01 ~		Operating Range : 1.97 ~ 39.4inch [50 ~ 1000mm], ± 40degrees		
Sampling Time	1.0~10.0 Seconds	1.9~4921.25 f/min	9999.99/sec	Power Supply	AAA Alkaline Battery, 4pcs.		
					approx. 30 Hours		
Display	Measurement Display : 6digits, 7segment LCD	Laser On :mark		Battery Life with Continuous Measurement	approx. 15 Hours		
		Contact Measurement :mark			approx. 30 Hours		
Prescale Range	-	On Target (:mark		Backlight	Blue (Auto-Backlight Off after 10 seconds of inactivity)		
		(Except TM-7020)			-		
Display Unit	: /min	Display Unit:/min, /sec, m/min		Operating Temp./Humid.	41 ~ 104°F [5 ~ +40°C] (Non-Freezing) 35 ~ 85%RH (Non-Condensing)		
		cm/sec, y/min, in/sec, f/min			14 ~ 140°F [-10 ~ +60°C] (Non-Freezing)		
Memory Display	MEM1~25, MAX, MIN	Memory Display:MEM1~25, MAX, MIN		Storage Temp.	-		
		Prescale Mode Indicator :PS			4.92inch [125mm](H) x 2.28inch [58mm](W) x 1.08inch [27.4mm](D) / 4.9oz. [140g]		
Prescale Range	-	0.001 ~ 999.999		Dimension/Weight (Battery Included)	5.67inch [144mm](H) x 2.28inch [58mm](W) x 1.42inch [36mm](D) / 6.0oz. [170g]		
		-			Compliance CE, RoHS		

DIMENSIONS



ZTM004 ZTM052/53



Contact Adaptor (Rotating shaft)

OPTION

ZTM051

Reflective Tape, 10pcs.

ZTM004-SET

Rubber Tip, 3pcs.

ZM4052

Surface Speed Wheel (1/10 m), 1 pc.

ZM4053

Surface Speed Wheel (1/10 y), 1 pc.

Image for illustrative purposes only

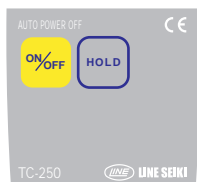


- | | | | | |
|-------------------------------|------------------------------------|----------------------|--|------------------------|
| ① Photoelectric Part | ②d Low-battery Indicator | ③ Measurement Button | ④a Linear/Surface Speed Key (Unit Selection Key) | ⑤ Contact Adaptor |
| ② Displays and Indicators | ②c Contact Measurement Indicator | ④ Key Switches | ④b Rotational Speed Key (Unit Selection Key) | ⑤a Rubber Tip |
| ②a Measurement Display | ②f Memory Number & MAX-MIN Display | ④a Enter Key | ④c Measurement Mode Key | ⑤b Surface Speed Wheel |
| ②b Prescale Setting Indicator | ②g Laser On Indicator | ④b Memory Call Key | | |
| ②c Unit Display | ②h On Target Indicator | ④c Clear Key | | |

MODELS

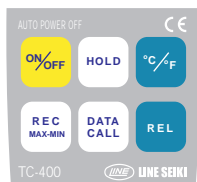
TC-250 (Basic type)

1. Auto Power-off
2. Data Hold



TC-400 (Advanced type)

1. °C / °F (Selectable)
2. Auto Power-off
3. Data Hold
4. Data Record (MAX / MIN / Memory)
5. Relative Measurement (MAX / MIN / Memory)



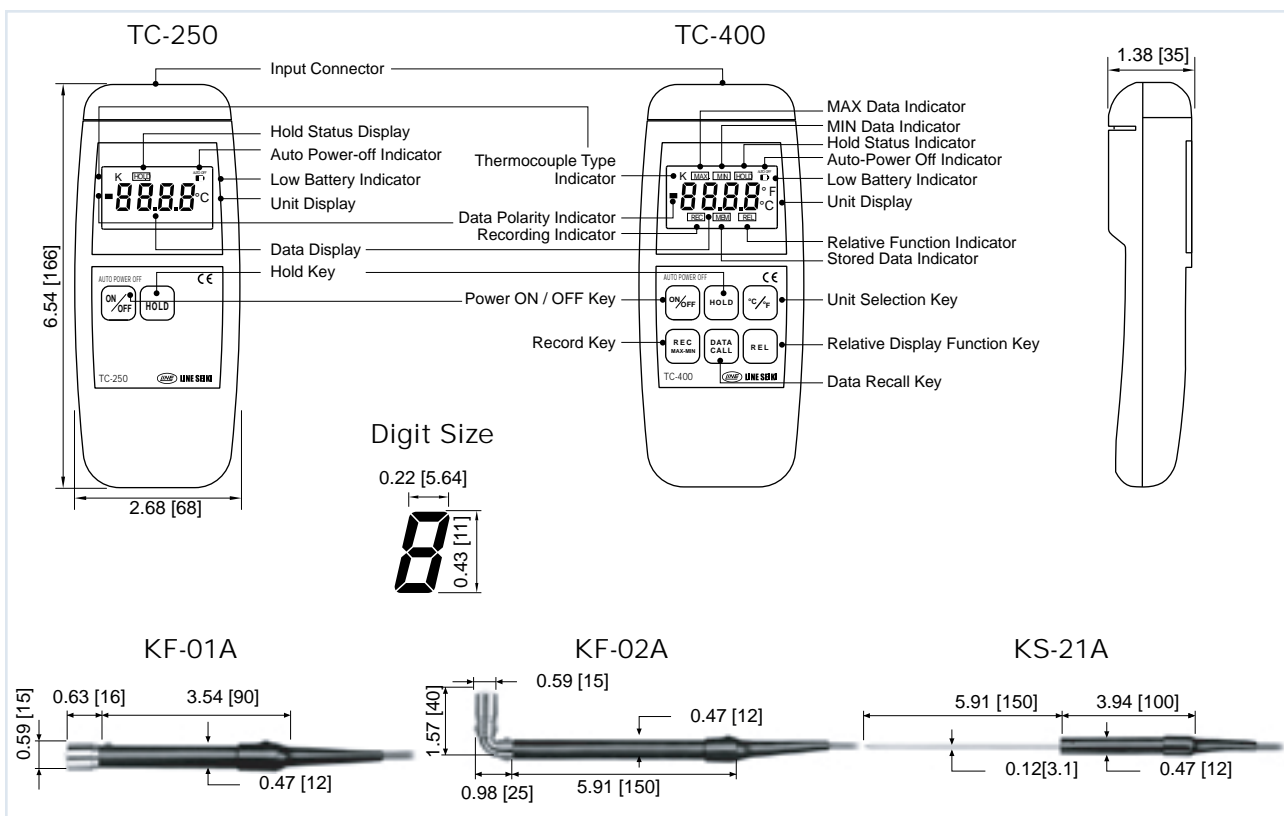
SPECIFICATIONS

Model	TC-250	TC-400
Sensor Type	Type K	
Measuring Range	-160°C (-256°F) ~ +1,372°C (+ 2,502°F)	
Resolution	Automatic +199.9°C(+391.8°F) or less : 0.1°C (0.2°F) +200°C (+392°F) or more : 1 (1°F) 0 °C (32°F) ~ + 199.9 °C (391.8°F) ± : 0.1 % of reading +0.7 °C(1.3°F)	
Accuracy at Ambient Temp. 25°C(77°F) ± 5°C(41°F)	-0.1°C (31.8°F) or less, +200 °C(+392°F) or more : ± 0.2% of reading +1°C (1.8°F)	
Temperature Coefficient	± 0.015% of reading + 0.06°C(0.108°F) / °C(1.8°F)	
Sampling Time	Approx. 1.2 sec.	
Operation Function	Auto Power-off, Data Hold	°C / °F(Selectable), Auto Power-Off, Data Hold, Data Record(MAX / MIN / Memory), Relative Measurement
Operating Temp. / Humidity	0 ~ 50°C (32 ~ 122°F) 0 ~ 90%RH at 0 ~ 35°C(32 ~ 95°F)	
Power Supply	Battery 006P (9V)	
Battery life	Approx. 500 Hours	
Weight	Approx. 6.8oz. [200g]	
Sensor Connector	Thermocouple Connector	
Accessories	Instruction Manual, Battery 006P, 1pc.	
Compliance	CE, RoHS	

Model	Max. Temp.	Applications / Type
KF-01A	500°C	Surfaces
KF-02A	500°C	Surfaces / Hard-to-reach Surfaces
KS-21A	800°C	Interiors of Semi-solids (with High Temperature) Pipe type : SUS316

Cable : L=39.37inch [1,000mm]

DIMENSIONS : inch [mm]





www.lineseiki.com



Line Seiki Co., Ltd.

Line Seiki Co., Ltd. - Head Office
37-7 Chuo-cho, 2-Chome
Meguro-ku, Tokyo JAPAN 152-0001
Tel: +81-3-37165151
Fax: +81-3-37104552
E-mail: webtrade@line.co.jp