

☆☆☆NEW PRODUCT☆☆☆

Delivery Start from November

Patent Pending

ELECTRONIC

SUPER MULTIMETER

SQLC-110L

High-performance, electricity monitor + prevention maintenance in one, 4 measuring simultaneously indicate.

■ Summary

Voltage (R-S-T-TR), Current (R-S-T), Demand current (R-S-T), Max. Demand current (R-S-T), Power, Demand power, Max. demand power, Reactive power, Apparent power, Power factor, Frequency, Leak current, Harmonic RMS value (A·V), Distortion ratio, Relative harmonic content, Watt-hour, Var-hour, all measurement function in one.

3-phase 3-wire, single phase 3-wire, single phase 2-wire are shared, 3-phase 4-wire comes correspondent by reshuffling by $2VT \cdot 3CT/3VT \cdot 3CT$ setting.



SQLC-110L
110 × 110 × 120mm (600g)

■ Feature

- * 4 measuring indication consisting of 1 main monitoring and 3 sub-monitoring + bar graph display.
- * Electric leakage measurement and alarm output is possible.
- * 4 circuits of analog output; pulse, alarm, CPU abnormality, communication output.
- * Communication output supports CC-Link, Modbus RTU, protocol A (RS-485)

■ Specification

Name		Electronic Super Multimeter	
Type		SQLC-110L	
Input circuit		3-phase 3-wire, single phase 3-wire, single phase 2-wire share(2VT·2CT)、3-phase 3-wire (2VT·3CT)	Specify, please.
		3 P4 W (2VT·3CT/3VT·3CT reshuffling by setting.	
Input rating	3P 3W, single phase3-wire single phase2-wire	AC110V,220V share (single phase 3-wire, AC100-200V) AC5A or 1A 50/60Hz please specify.	
	3P4W	AC110/√3V,220/√3V/share or 440/√3V AC5A or 1A 50/60Hz please specify.	
Auxiliary Supply	Power range and consumption VA	(1) AC85~244V 10VA (rating voltage AC100/110V,200/220V) DC80~143V 6W (rating voltage DC100/110V) AC & DC combined use (2) DC20~56V 6W (rating voltage DC24/48V)	Please specify either (1) or (2).
	Rush current (a time constant)	rating voltage AC110V 2.2A or less (approx. 3.6ms)	
		rating voltage AC220V 4.4A or less (approx. 3.6ms)	
		rating voltage DC110V 1.6A or less (approx. 3.6ms)	
		rating voltage DC24V 5.0A or less (approx. 2.0ms)	
		rating voltage DC48V 9.9A or less (approx. 2.0ms)	

■ Type and specification code

type		specification code													
(1) SQLC-110L	(2) Hard model	(3) Input circuit	(4) Input range	(5) Aux. Power	(6) External operation input	(7) Analog output circuit or communication output	(8) Connection output	(9) LCD view angel direction							
	(2) Hard model	(3) Input circuit	(4) Input range	(5) Aux. Power	(6) External operation input	(7) Analog output circuit or communication output	(8) Connection output	(9) LCD view angel direction							
A ¹	Hard model A	F 1 ϕ 2W,1 ϕ 3W,3 ϕ 3W share	F 150V,300V share 5A	1 both AC85-264V & DC80-143V 2 DC20-56V	0 no 1 2 circuits	0 no 1 analog output 4 circuits 1 1-20mA 2 0-1m A 3 pulse x 2 3 1-5V 4 0-5V 5 0-10V	0 no 2 alarm x 2 3 pulse x 2 4 pulse+CPU abnormality 5 alarm+CPU abnormality	1 for upper row installation 2 for lower row installation upper row installation is standard for LC series							
	B	Hard model B R-S-T-N R-Y-B-W	2 1 ϕ 2W 3 1 ϕ 3W 3 3 ϕ 3W						1 150V,5A(150-300V,5A 1 ϕ 3W) 3 300V,5A 5 5A						
		G 1 ϕ 2W,1 ϕ 3W,3 ϕ 3W+leak*6	F 150V(150-300V,5A 1 ϕ 3W)	Z except above	Z except above	Z except above	Z except above								
		5 1 ϕ 2W+electric leakage	A 300V												
		6 1 ϕ 3W+electric leakage	G 150V,300V share 1A												
		7 3 ϕ 3W+electric leakage	2 150V,1A(150-300V,5A 1 ϕ 3W)												
		4 300V,1A	6 1A												
		7 5A(3 ϕ 3W 3CT)*4	8 1A(3 ϕ 3W 3CT)*4												
		P 150V,5A(3 ϕ 3W 2V13CT)*4	Q 150V,1A(3 ϕ 3W 2V13CT)*4												
		R 300V,5A(3 ϕ 3W 2V13CT)*4	S 300V,1A(3 ϕ 3W 2V13CT)*4												
		F 150V,3V,300V,3V share 5A	1 150V,3V,5A												
		3 300V,3V,5A	5 5A												
		9 150V,3V	A 300V,3V												
		G 150V,3V,300V,3V share 1A	2 150V,3V,1A												
		4 300V,3V,1A	6 1A												
		B 440V,3V,5A	C 440V,3V,1A												
		Z except above													
		■ ZCT option for electric leakage measuring													
		ZCT Type and Specification							accuracy of electric leakage measurement						
Type	Maker	A primary circuit current		inside diameter (use)											
no attached	Refer to correspondence	-		-		20%									
OTG-LA21	Omron	50A		21 ϕ (indoor)		10%									
OTG-LA30	Omron	100A		30 ϕ (indoor)		10%									
OTG-LA42	Omron	200A		42 ϕ (indoor)		10%									
OTG-LA68	Omron	400A		68 ϕ (indoor)		10%									
OTG-LA82	Omron	600A		82 ϕ (indoor)		10%									
OTG-LA30W	Omron	100A		30 ϕ (outdoor)		10%									

*1 It shows as R-S-T-U in catalog, in case of Hard Model B, please read as R-Y-B-W.

*2 Possible to change the setting after purchase with choose the code symbol in F, G with an 3 input circuit and an 4 input range.

*3 Possible to change the setting after purchase with choose the code symbol among detailed setting with an 3 input circuit and an 4 input range, the setting can be set with the detailed symbol code.

*4 For the code [33W 3CT] [33W 2VT 3CT], please choose the F or 3 for the 3 output circuit code.

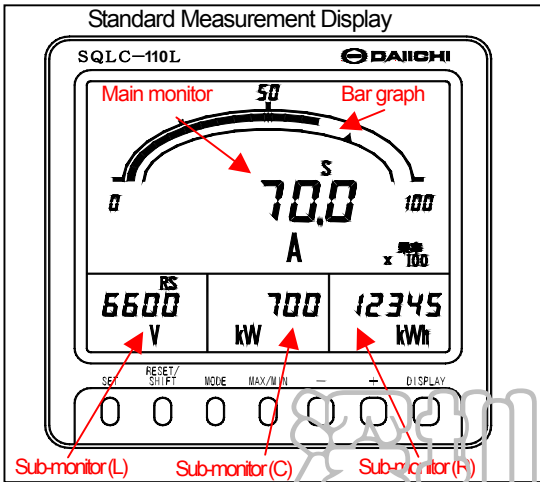
*5 Possible to reshufling the setting from 2VT3CT to 3VT3CT

6 Please choose the ZCT for measure the leakage. When the purchased is separately, please inform that with an attached unnecessary. Please refer the list for correspondence the ZCT.

■ Communication specification

Protocol A	EAI RS-485 2 half duplex wires start-stop synchronization type			
	Transfer speed	1200/2400/4800/9600/19200bps	Address	1~254
	Cable length	1000m(total extension length)	Transfer character	ASCII code
Protocol Modbus RTU mode	EAI RS-485 2 half duplex wires start-stop synchronization type			
	Transfer speed	4800/9600/19200/38400bps	Transfer code	Binary
	Cable length	1000m(total extension length)	Address	1~254(connect number, max. 31)
CC-Link Ver.1.0	Transfer speed	156k/625k/2.5M/5M/10Mbps		42(when composing only of this unit)
	Monopoly bureau No	Remote device bureau:1 bureau occupation		
	Max. transfer distance	1200m(156kbps)/900m(625kbps)/400m(2.5Mbps)/160m(5Mbps)/100m(10Mbps)		

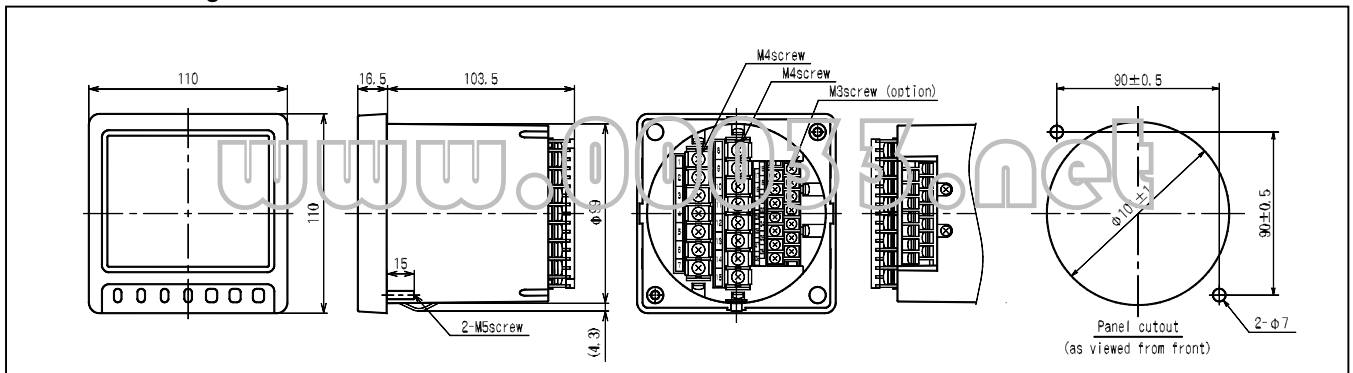
■ LCD Display



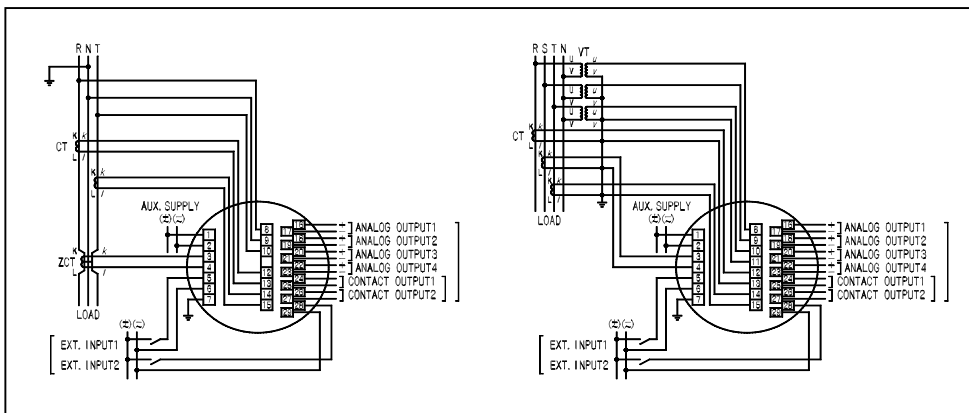
■ Elements for display

Main monitor	V (RS-ST-TR), C (R-S-T), demand current (R-S-T), power, demand power, reactive power, apparent power(3 ϕ 4W only), power factor, frequency, leak current (w/ leak current measurement only), watt-hour(incoming/outgoing), var-hour(incoming LAG/LEAD · outgoing LAG/LEAD), distortion ratio(A, V)
Sub-monitor (Left)	V (RS-ST-TR), C (R-S-T), power, reactive power, power factor, apparent power (3 ϕ 4W only), leak current (for those w/ leak current measurement only)
Sub-monitor (Center)	V(RS-ST-TR), C(R-S-T), demand current(R-S-T), power, demand power, reactive power, var-hour (incoming LAG/LEAD · outgoing LAG/LEAD), relative harmonic content (5 th)(A, V), relative harmonic content (nth)(A, V)
Sub-monitor (Right)	V (RS-ST-TR), C (R-S-T), demand current (R-S-T), power, demand power, frequency, power factor, watt-hour (incoming/outgoing), fundamental wave RMS value (A, V), relative harmonic content (5 th)(A, V), harmonic nth RMS value (A, V)
Bar graph	V (RS-ST-TR), C (R-S-T), demand current (R-S-T), power, demand power, reactive power, apparent power(3 ϕ 4W only), power factor, frequency, leak current (for those w/ leak current measurement only), distortion ratio (A, V), relative harmonic content (5 th)(A, V), relative harmonic content (nth)(A, V), fundamental wave RMS value (A, V), relative harmonic 5 th RMS value (A, V), harmonic nth RMS value (A, V)

■ Dimensions diagram



■ Connection diagram



■ Zero - phase converter

1. ZCT option
 - (1) Zero - phase converter
OTG-LAC Made by Omron
2. Other correspondent ZCT
The follows are also adaptable.
Please inquiry in the case of adoption.
 - (1) Penetration form ZCT (ZR series)
ZR-□ produced by Hitachi Industrial Equipment Systems
 - (2) Zero-phase converter for low-voltage (penetration form) ZB-□ produced by Taiwa Electric Industries Co., Ltd.



Safety Precaution



CAUTION

- Only technical expert can install or perform electrical wiring work. Please refer to the operation manual and handle this product properly.
- Please confirm the connection diagram thoroughly before connecting.
- Hot line job is prohibited to prevent an electric shock accident, product damage, burnout, fire, gas explosion, or other very dangerous accidents may occur.