

Digital Electricity Meters

LD Series



LSIS Digital watt hour meter

The best technique of LSIS generates innovative meters.

LS Digital W-meter increases space application by minimizing size, has various types and reliability by easy maintenance.



<Both terminal type meter>

<CT/PT operated meter>

■ High reliable CPU

The CPU of watt hour meter is same as humans brain. LS industrial system selects the world best CPU.

■ Fully Made In Korea

LS industrial system is only made in Korea. LS power meter is not OEM, SKD product from china or South east Asia.

■ Maximum 60mm² cable connection (LD series)

It's possible to connect 60mm² cable, so that heating damage probability will be reduced. (120A)

■ Current detection by CT method

Better insulation and inner surge characteristic can get more reliability.

■ Large LCD

It is very easy to check inspection value due to the large LCD.

■ Inspection data storage

LS industrial system's watt hour meter can store despite of blackout, because there is non-flash memory inside.

■ Compact size, high accuracy realization

Although the size minimize more 58% than static meter, accuracy is more 2 times than static one.

■ Left/right product conversion (LD series)

It's possible to use as one product without difference of Left/Right type. It can be used without concerning power supply direction.



■ Various model

It's possible to do remote inspection by various standard, pulse output, remote inspection type. Especially, remote inspection product is composed of communication module. So it's possible to do remote inspection gas, water, heating water, thermal capacity, air condition-ing facility meter.

■ Best A/S

LSIS always provides best A/S to our customer, we make the customer

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Digital Electricity Meter

LD Series

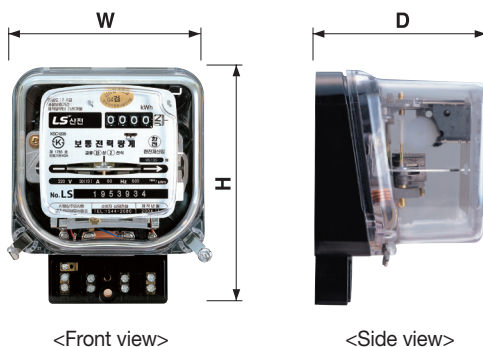
Both terminal connection method



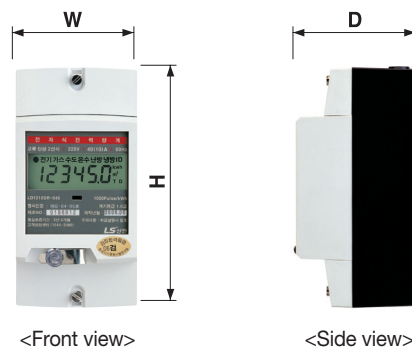
Compact size

It is easy to install and increase space usage between cabinet panel and power meter panel because of the minimizing size.

Mechanic watt hour meter



Electronic watt hour meter



<mm, kg>

Type		Mechanic	Electronic	Minimizing
Dimension	W	130	66	49%
	H	159	130	18%
	D	155	65	58%
Weight		1.1	0.4	64%

Note) Single phase 40A standard.



1.0% accuracy

It is possible to do more accurate inspection because of the 2times increasing of accuracy comparing with static power meter within error range 1%.

Mechanic watt hour meter



**Mechanic
power meter**
2.0 class
error rate $\pm 2.0\%$



Electronic watt hour meter

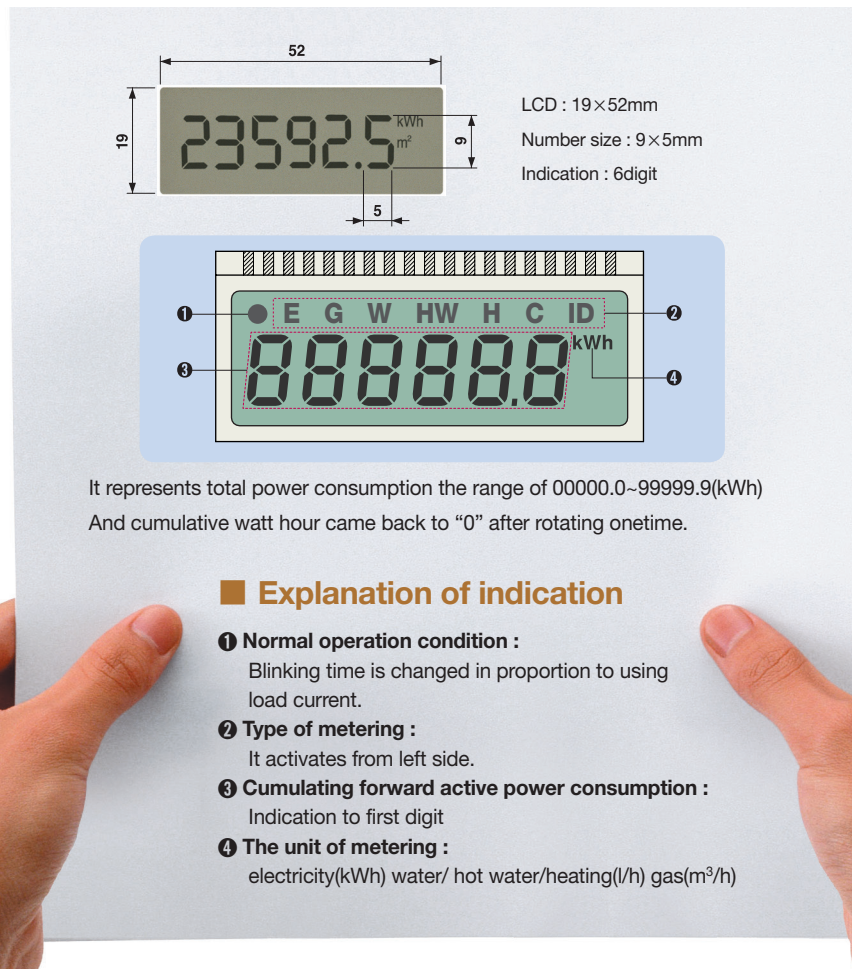


**Electronic
power meter**
1.0 class
error rate $\pm 1.0\%$



Large LCD

It's easy to see the inspection value and operating condition by large LCD.



Various model

It can be installed easily because of the various type(Up/Down, Left/Right type).



1P2W Up/Down type



1P2W Left/Right type



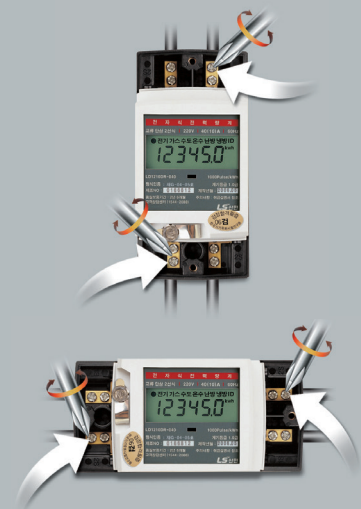
3P4W Up/Down type



3P4W Left/Right type



Both terminal connection method



Digital Electricity Meter

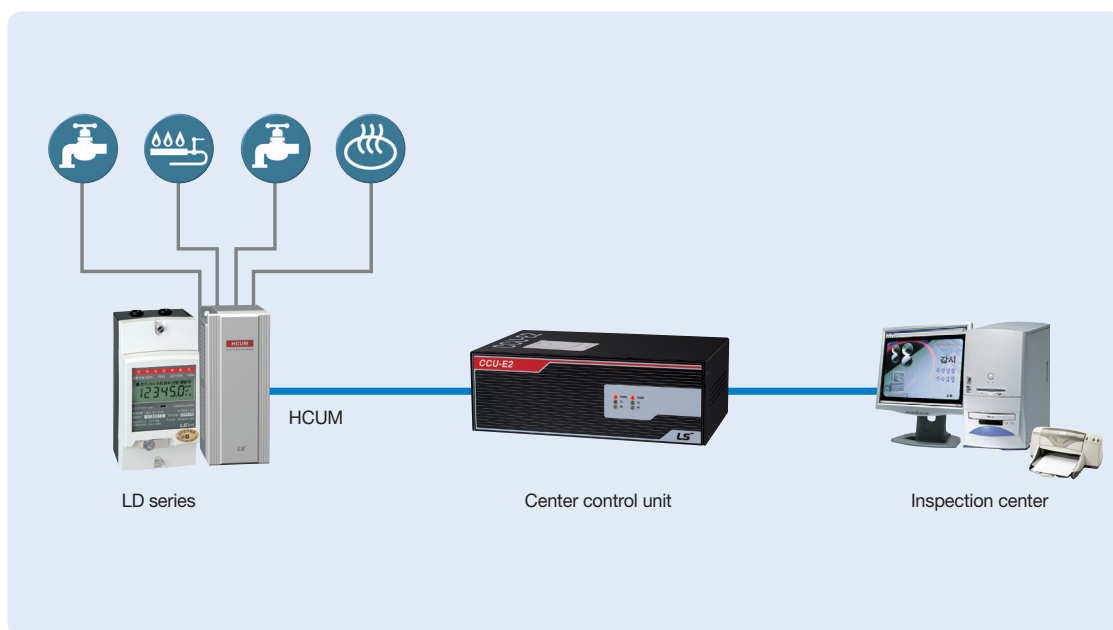
Application



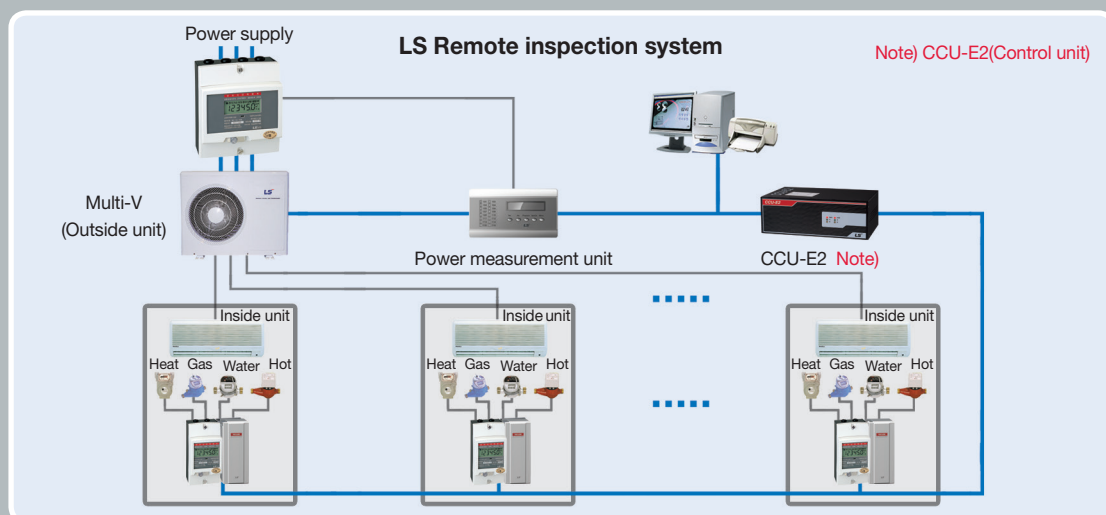
Remote inspection of meters

LD series

It is possible to do a remote inspection of meters of electricity, gas, water, heat capacity, air conditioner value by RS-485 communication.

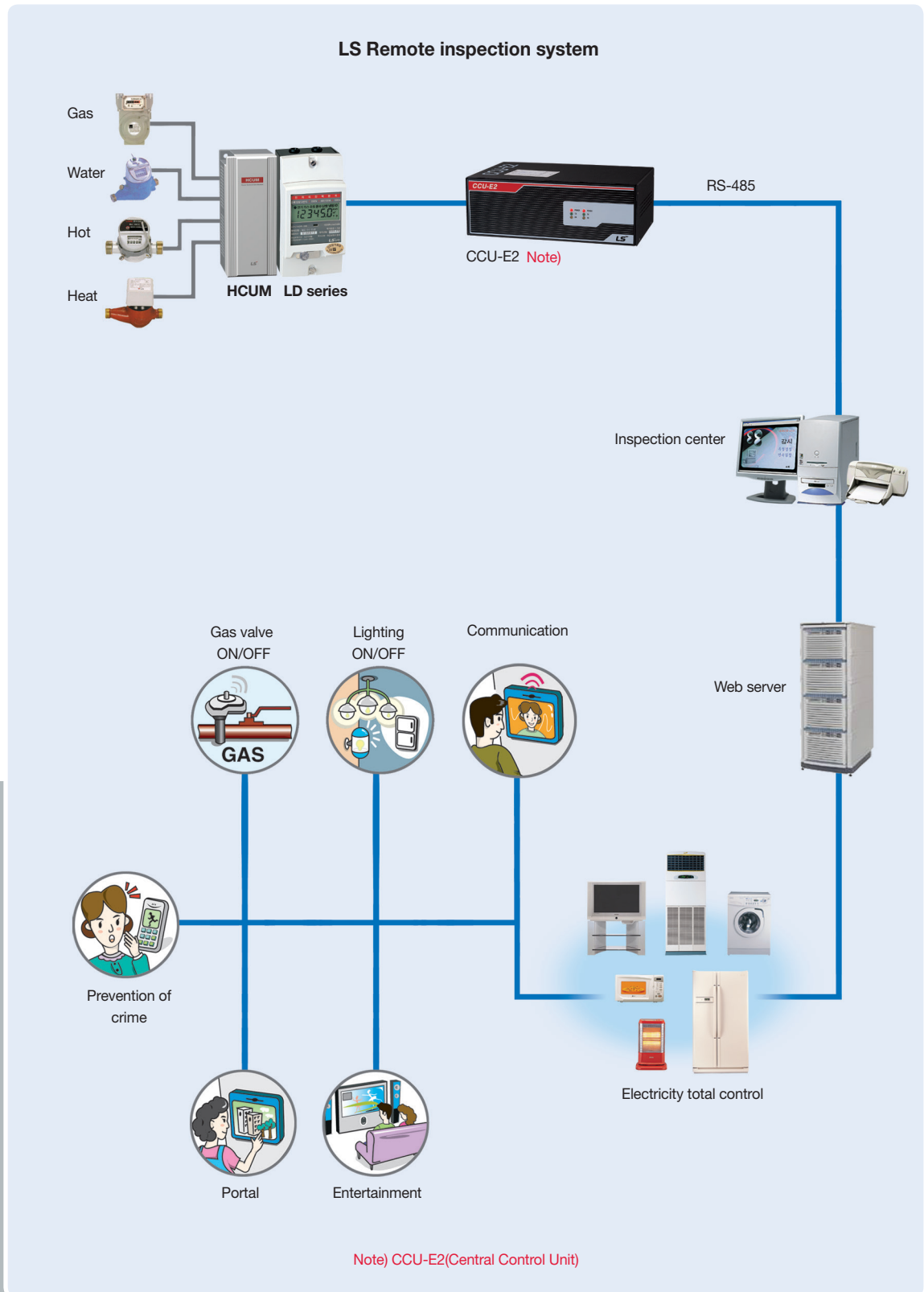


Multi air-condition system





Home network system



Digital Electricity Meter

LD Series

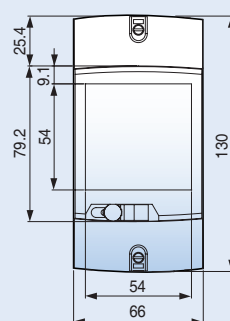
Ratings / Dimensions (Direct connection meter)

Single phase 40A

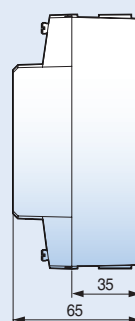
Up/Down type



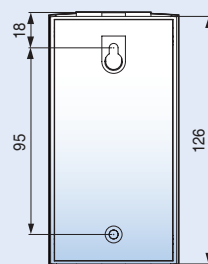
Type	LD1210DRM-040(U/D)
Circuit Sys.	1P2W
Current(A)	40(10)
Voltage(V)	220V, 50/60Hz
Pulse/kWh	1000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



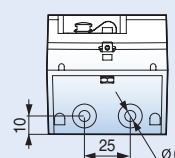
Front



Side



Rear

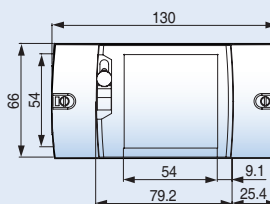


Bottom

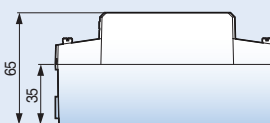
Left/Right type



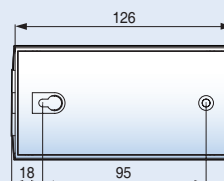
Type	LD1210DRM-040(L/R)
Circuit Sys.	1P2W
Current(A)	40(10)
Voltage(V)	220V, 60Hz
Pulse/kWh	1000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



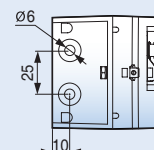
Front



Top



Rear



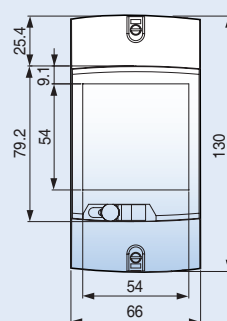
Side

■ Single phase 80A

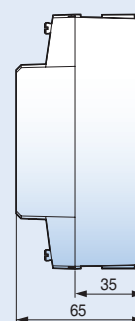
Up/Down type



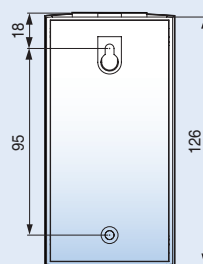
Type	LD1210DRM-080(U/D)
Circuit Sys.	1P2W
Current(A)	80(20)
Voltage(V)	220V, 50/60Hz
Pulse/kWh	500
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



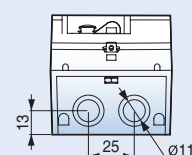
Front



Side



Rear

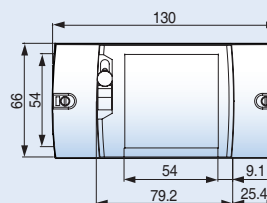


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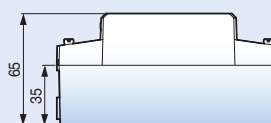
Left/Right type



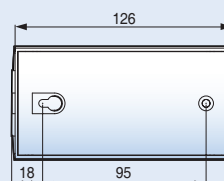
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Current(A)	80(20)
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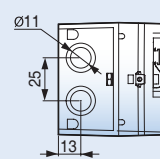
Front



Top



Rear



Side

Digital Electricity Meter

LD Series

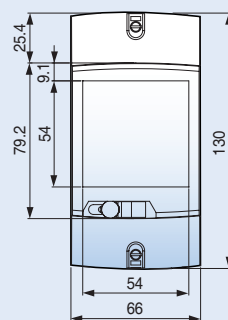
Ratings / Dimensions (Direct connection meter)

Single phase 120A

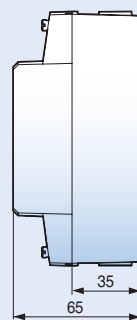
Up/Down type



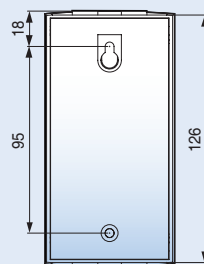
Type	LD1210DRM-120(U/D)
Circuit Sys.	1P2W
Current(A)	120(30)
Voltage(V)	220V, 50/60Hz
Pulse/kWh	250
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



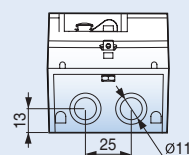
Front



Side



Rear

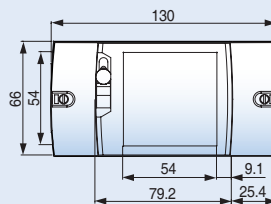


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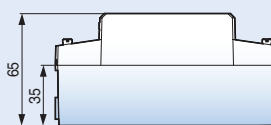
Left/Right type



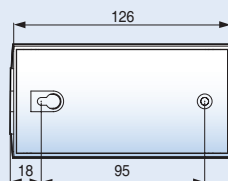
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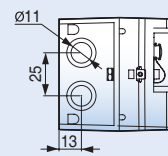
Front



Top



Rear



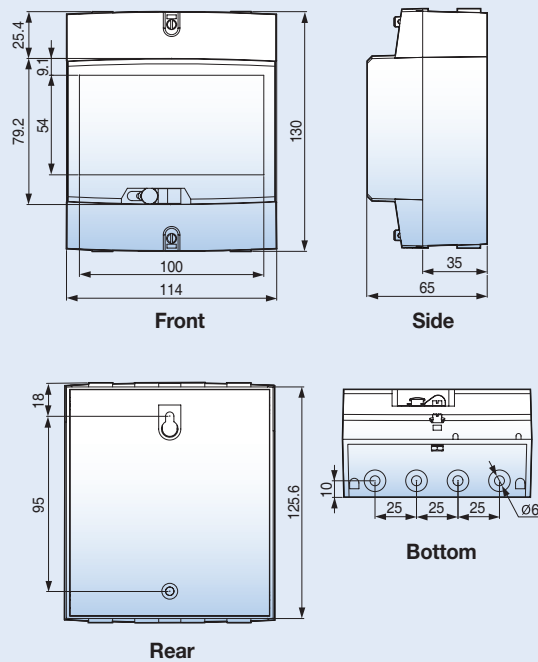
Side

■ 3phase 4wiring 40A

Up/Down type



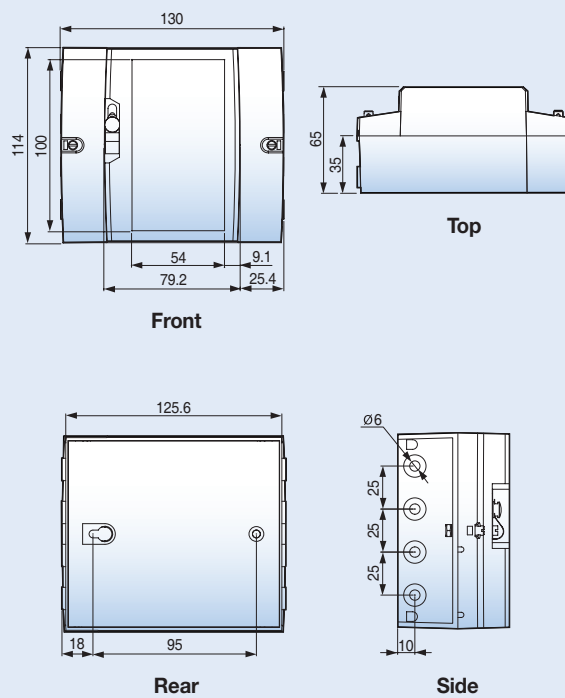
Type	LD3410DRM-040(U/D)	
Circuit Sys.	3P4W	
Current(A)	40(10)	
Voltage(V)	220/380V, 50/60Hz	
Pulse/kWh	500	
Accuracy	1.0	
Option	S	Standard
	P	Pulse type
	R	Remote inspection



Left/Right type



Type	LD3410DRM-040(L/R)	
Circuit Sys.	3P4W	
Current(A)	40(10)	
Voltage(V)	220/380V, 60Hz	
Pulse/kWh	500	
Accuracy	1.0	
Option	S	Standard
	P	Pulse type
	R	Remote inspection



Digital Electricity Meter

LD Series

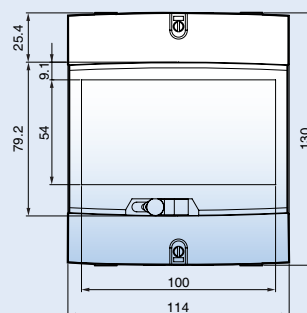
Ratings / Dimensions (Direct connection meter)

3phase 4wiring 80A

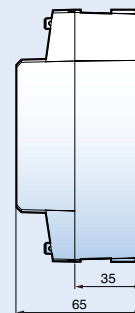
Up/Down type



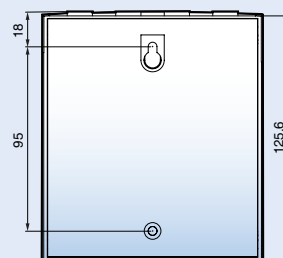
Type	LD3410DRM-080(U/D)	
Circuit Sys.	3P4W	
Current(A)	80(20)	
Voltage(V)	220/380V, 50/60Hz	
Pulse/kWh	250	
Accuracy	1.0	
Option	S	Standard
	P	Pulse type
	R	Remote inspection



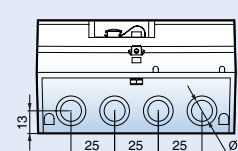
Front



Side



Rear

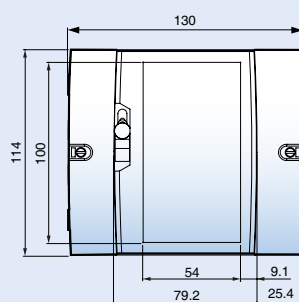


Bottom

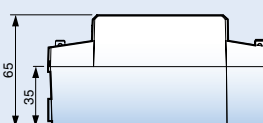
Left/Right type



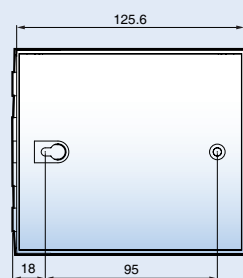
Type		LD3410DRM-080(L/R)
Circuit Sys.		3P4W
Current(A)		80(20)
Voltage(V)		220/380V, 60Hz
Pulse/kWh		250
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



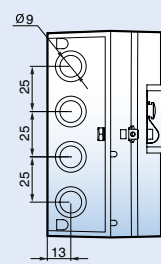
Front



Top



Rear



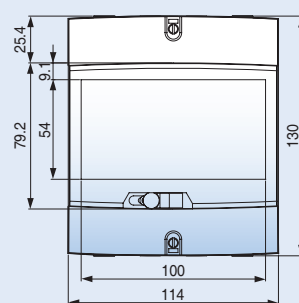
Side

■ 3phase 4wiring 120A

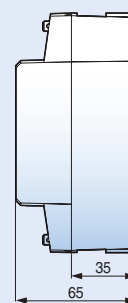
Up/Down type



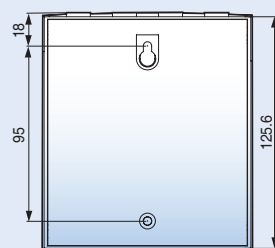
Type	LD3410DRM-120(U/D)	
Circuit Sys.	3P4W	
Current(A)	120(30)	
Voltage(V)	220/380V, 50/60Hz	
Pulse/kWh	125	
Accuracy	1.0	
Option	S	Standard
	P	Pulse type
	R	Remote inspection



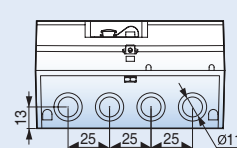
Front



Side



Rear

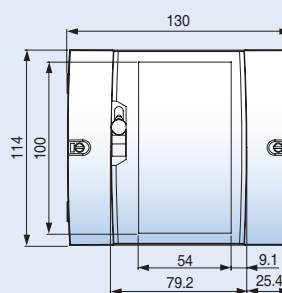


Bottom

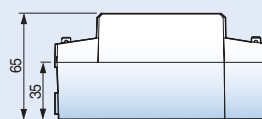
Left/Right type



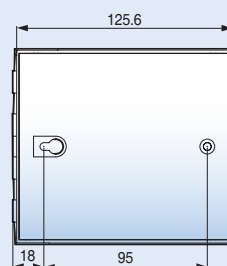
Type	LD3410DRM-120(L/R)	
Circuit Sys.	3P4W	
Current(A)	120(30)	
Voltage(V)	220/380V, 60Hz	
Pulse/kWh	125	
Accuracy	1.0	
Option	S	Standard
	P	Pulse type
	R	Remote inspection



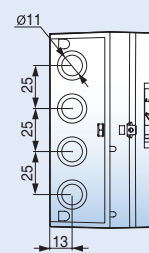
Front



Top



Rear



Side

Digital Electricity Meter

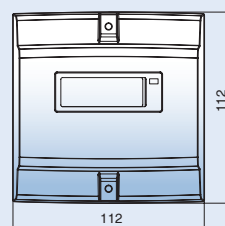
LD Series

Ratings / Dimensions (CT/PT operated meter)

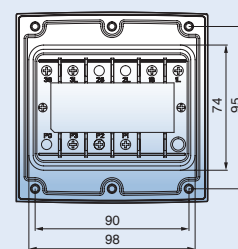
3phase 3wiring 5A (Compact Flush mounting)



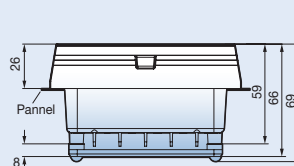
Type	LD3310CTM-005Te
Circuit Sys.	3P3W
Current(A)	5(2.5)
Voltage(V)	220V, 50/60Hz
Pulse/kWh	5000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



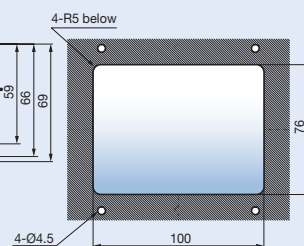
Front



Rear



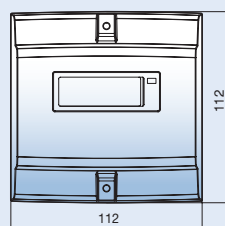
Bottom



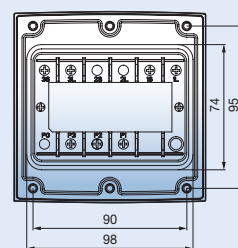
Shape of panel hole



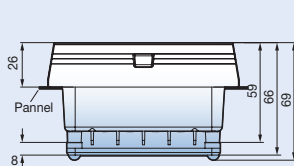
Type	LD3310CPM-005Te
Circuit Sys.	3P3W
Current(A)	5(2.5)
Voltage(V)	110V, 50/60Hz
Pulse/kWh	10000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



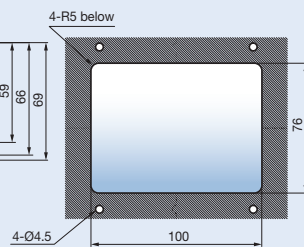
Front



Rear



Bottom



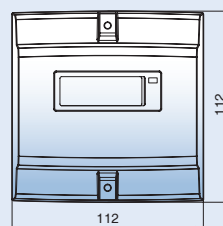
Shape of panel hole

Note) CTM/CPM operated meter 50Hz, 60Hz is the only product.

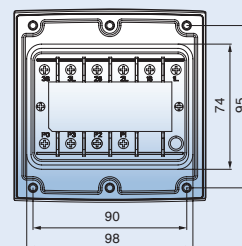
■ 3phase 4wiring 5A (Compact Flush mounting)



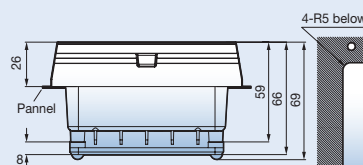
Type	LD3410CTM-005Te
Circuit Sys.	3P4W
Current(A)	5(2.5)
Voltage(V)	220/380V, 50/60Hz
Pulse/kWh	2500
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



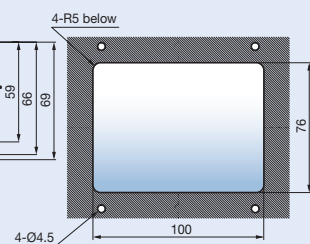
Front



Rear



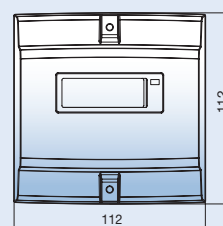
Bottom



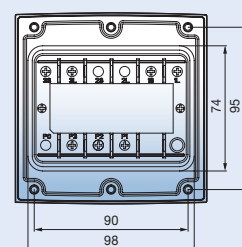
Shape of panel hole



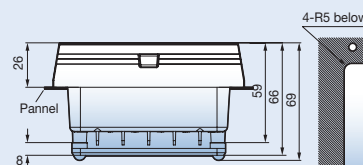
Type	LD3410CPM-005Te
Circuit Sys.	3P4W
Current(A)	5(2.5)
Voltage(V)	110/190V, 50/60Hz
Pulse/kWh	5000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



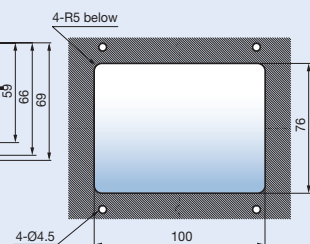
Front



Rear



Bottom



Shape of panel hole

Note) CTM/CPM operated meter 50Hz, 60Hz is the only product.

Digital Electricity Meter

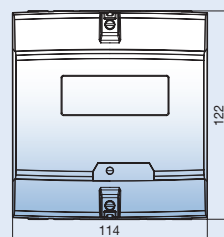
LD Series

Ratings / Dimensions (CT/PT operated meter)

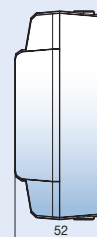
3phase 3wiring 5A (Compact Surface type)



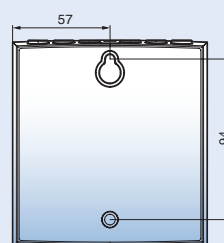
Type	LD3310CTM-005
Circuit Sys.	3P3W
Current(A)	5(2.5)
Voltage(V)	220V, 50/60Hz
Pulse/kWh	5000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



Front



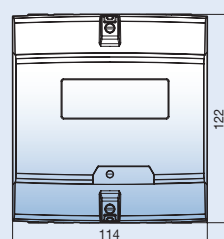
Side



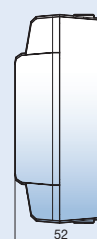
Rear



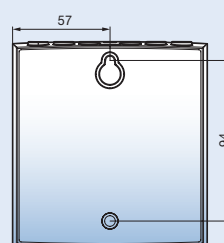
Type	LD3310CPM-005
Circuit Sys.	3P3W
Current(A)	5(2.5)
Voltage(V)	110V, 50/60Hz
Pulse/kWh	10000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



Front



Side



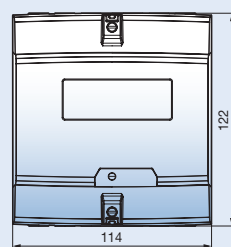
Rear

Note) CTM/CPM operated meter 50Hz, 60Hz is the only product.

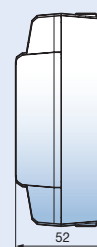
■ 3phase 4wiring 5A (Compact Surface type)



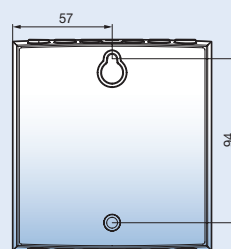
Type	LD3410CTM-005
Circuit Sys.	3P4W
Current(A)	5(2.5)
Voltage(V)	220/380V, 50/60Hz
Pulse/kWh	2500
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



Front



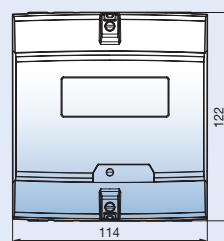
Side



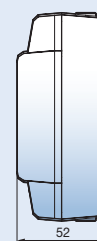
Rear



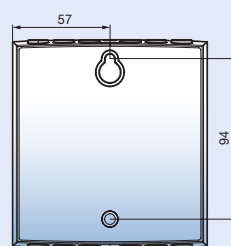
Type	LD3410CPM-005
Circuit Sys.	3P4W
Current(A)	5(2.5)
Voltage(V)	110/190V, 50/60Hz
Pulse/kWh	5000
Accuracy	1.0
Option	S Standard
	P Pulse type
	R Remote inspection



Front



Side



Rear

Note) CTM/CPM operated meter 50Hz, 60Hz is the only product.

Digital Electricity Meter

Ratings and specification

■ LD series rating (Direct connection meter)

LD series (Direct connection meter)

Type	Model					
	LD1210DRM-040	LD1210DRM-080	LD1210DRM-120	LD3410DRM-040	LD3410DRM-080	LD3410DRM-120
Elec. Type	1P2W			3P4W		
Rated voltage (V)	220V, 50/60Hz			220/380V, 50/60Hz		
Rated current (A)	40(10)A	80(20)A	120(30)A	40(10)A	80(20)A	120(30)A
Accuracy	Class 1.0					
Pulse/kWh (Pulse/kWh)	1000	500	250	500	250	125
External output pulse ^{Note)}	1pulse=1Wh	1pulse=10Wh	1pulse=100Wh	1pulse=2Wh	1pulse=4Wh	1pulse=8Wh
Output rating of pulse	IF = 9.5mA, IC < 6mA, VCC < 30V, pulse width : 70mS					
Power	Under 2W					
Weight (g)	450	550	550	650	850	850
Dimension(mm) (W×H×D)	66×130×65	66×130×65	66×130×65	114×130×65	114×130×65	114×130×65
Material	Base : Phenolic resin(Black), Cover : Polycarbonate(White)					
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%					
Protection against dust, water insertion	IEC 60529 standard IP51					
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃ (IEC 60695-2-11, KS C 0260)					
Internal structure	Unit for inside type					

^{Note)} Consider in case of system air-conditioning Remote inspection application and some other external application.

Ratings and specification

■ LD series rating (CT/PT operated meter)

3phase 3wiring (Compact Flush mounting)

Type	Model					
	LD3310CTM -005Te S	LD3310CTM -005Te P	LD3310CTM -005Te R	LD3310CPM -005Te S	LD3310CPM -005Te P	LD3310CPM -005Te R
	Standard	Pulse type	Remote inspection	Standard	Pulse type	Remote inspection
Elec. Type	3P3W					
Rated voltage (V)	220V, 50/60Hz			110V, 50/60Hz		
Rated current (A)	5(2.5)A					
Accuracy	Class 1.0					
Pulse/kWh (Pulse/kwh)	5,000			10,000		
External output pulse Note)	1pulse=0.2Wh			1pulse=0.1Wh		
Output rating of pulse	IF = 9.5mA, IC < 6mA, VCC < 30V, pulse width : 70mS					
Power	Under 2W					
Dimension(mm) (W×H×D)	112×112×69					
Material	Base : Poly carbonate(Black), Cover : Poly carbonate(White)					
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%					
Protection against dust, water insertion	IEC 60529 standard IP51					
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃(IEC 60695-2- II , KSC 0260)					
Internal structure	Unit for inside type					

Note) Consider in case of system air-conditioning Remote inspection application and some other external application.

3phase 4wiring (Compact Flush mounting)

Type	Model					
	LD3410CTM -005Te S	LD3410CTM -005Te P	LD3410CTM -005Te R	LD3410CPM -005Te S	LD3410CPM -005Te P	LD3410CPM -005Te R
	Standard	Pulse type	Remote inspection	Standard	Pulse type	Remote inspection
Elec. Type	3P3W					
Rated voltage (V)	220/380V, 50/60Hz			110/190V, 50/60Hz		
Rated current (A)	5(2.5)A					
Accuracy	Class 1.0					
Pulse/kWh (Pulse/kwh)	2,500			5,000		
External output pulse	1pulse=0.4Wh			1pulse=0.2Wh		
Output rating of pulse	IF = 9.5mA, IC < 6mA, VCC < 30V, pulse width : 70mS					
Power	Under 2W					
Dimension(mm) (W×H×D)	112×112×69					
Material	Base : Poly carbonate(Black), Cover : Poly carbonate(White)					
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%					
Protection against dust, water insertion	IEC 60529 standard IP51					
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃(IEC 60695-2- II , KSC 0260)					
Internal structure	Unit for inside type					

Note) Consider in case of system air-conditioning Remote inspection application and some other external application.

Digital Electricity Meter

Ratings and specification

LD series rating (CT/PT operated meter)

3phase 3wiring (Compact Surface type)

Type	Model					
	LD3310CTM -005 S	LD3310CTM -005 P	LD3310CTM -005 R	LD3310CPM -005 S	LD3310CPM -005 P	LD3310CPM -005 R
	Standard	Pulse type	Remote inspection	Standard	Pulse type	Remote inspection
Elec. Type	3P3W					
Rated voltage (V)	220V, 50/60Hz			110V, 50/60Hz		
Rated current (A)	5(2.5)A					
Accuracy	Class 1.0					
Pulse/kWh (Pulse/kwh)	5,000			10,000		
External output pulse Note)	1pulse=0.2Wh			1pulse=0.1Wh		
Output rating of pulse	IF = 9.5mA, IC < 6mA, VCC < 30V, pulse width : 70mS					
Power	Under 2W					
Dimension(mm) (W×H×D)	114×122×52					
Material	Base : Poly carbonate(Black), Cover : Poly carbonate(White)					
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%					
Protection against dust, water insertion	IEC 60529 standard IP51					
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃(IEC 60695-2- II , KSC 0260)					
Internal structure	Unit for inside type					

Note) Consider in case of system air-conditioning Remote inspection application and some other external application.

3phase 4wiring (Compact Surface type)

Type	Model					
	LD3410CTM -005Te S	LD3410CTM -005Te P	LD3410CTM -005Te R	LD3410CPM -005Te S	LD3410CPM -005Te P	LD3410CPM -005Te R
	Standard	Pulse type	Remote inspection	Standard	Pulse type	Remote inspection
Elec. Type	3P3W					
Rated voltage (V)	220/380V, 50/60Hz			110/190V, 50/60Hz		
Rated current (A)	5(2.5)A					
Accuracy	Class 1.0					
Pulse/kWh (Pulse/kwh)	2,500			5,000		
External output pulse	1pulse=0.4Wh			1pulse=0.2Wh		
Output rating of pulse	IF = 9.5mA, IC < 6mA, VCC < 30V, pulse width : 70mS					
Power	Under 2W					
Dimension(mm) (W×H×D)	114×122×52					
Material	Base : Poly carbonate(Black), Cover : Poly carbonate(White)					
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%					
Protection against dust, water insertion	IEC 60529 standard IP51					
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃(IEC 60695-2- II , KSC 0260)					
Internal structure	Unit for inside type					

Note) Consider in case of system air-conditioning Remote inspection application and some other external application.

Ordering

■ LD series (Direct connection meter)

LD

1210

DRM

—

040

S

(U/L)

50Hz

Wiring system		Rated current		Option		Wiring method		Frequency	
1210	1P2W	040	40(10)A	S	Standard	(U/L)	Up/Down type	-	60Hz
3410	3P4W	080	80(20)A	P	Pulse type	(R/L)	Left/Right type	50	50Hz
		120	120(30)A	R	Remote inspection				

■ LD series (CT/PT operated meter)

LD

3310

CTM

—

005

Te

S

50Hz

Wiring system	
3310	3P3W
3410	3P4W

Type	
CT	Current transformer
PT	Voltage transformer

Installation method	
-	Surface type
Te	Flush mounting

Option	
S	Standard
P	Pulse type
R	Remote inspection

Frequency	
-	60Hz
50	50Hz

Digital Electricity Meter

Diagram

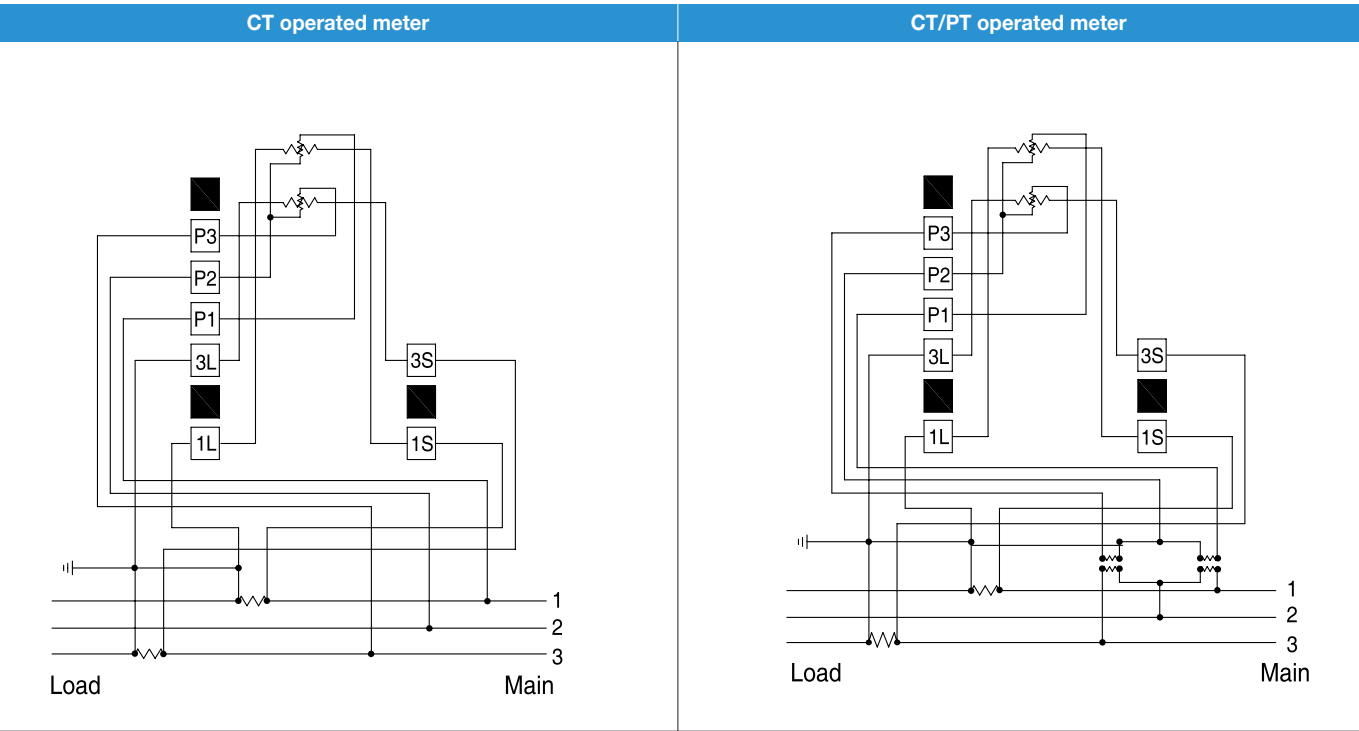
LD series

	1P2W	3P4W
Up/Down type		
Left/Right type (Users need consider about exchanging between power supply and load.)		

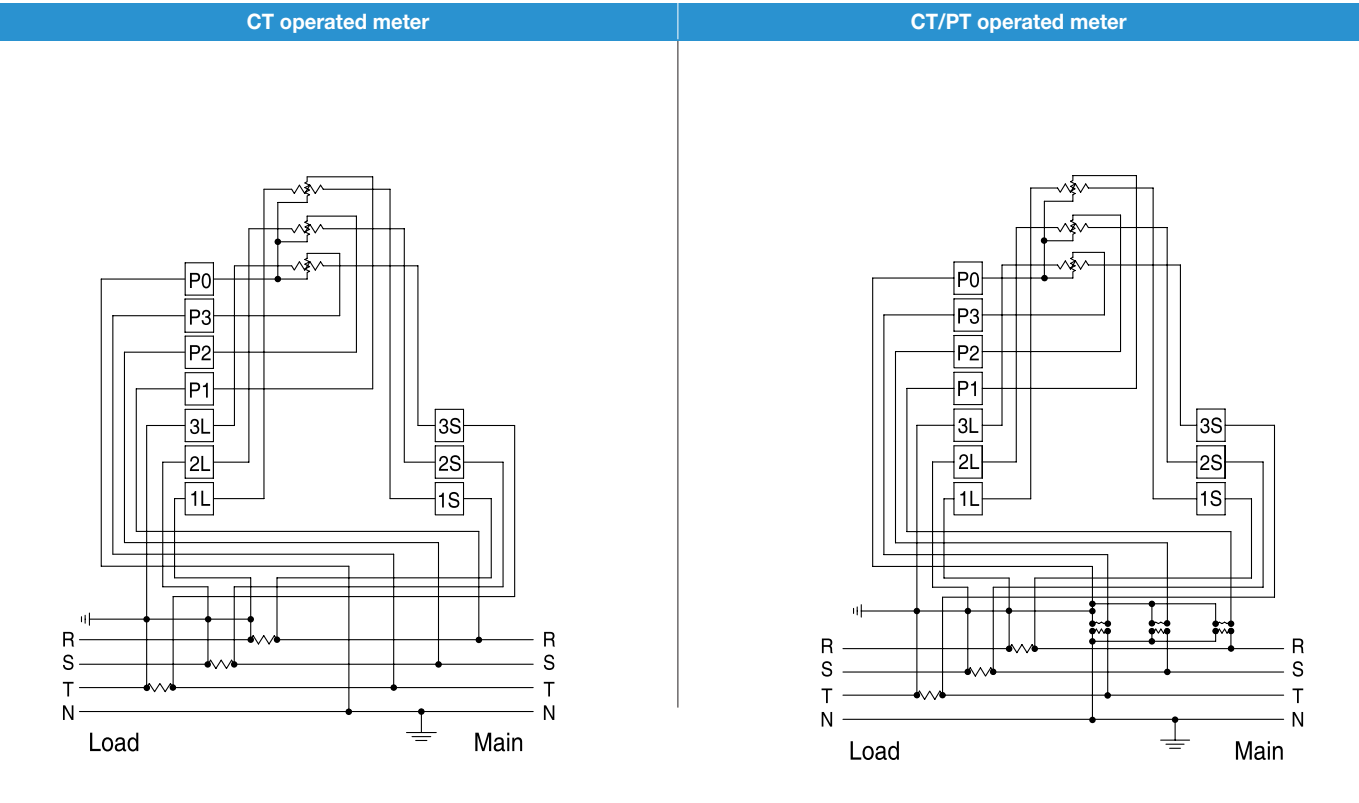
Diagram

LD series (CT/PT operated meter)

3phase 3wiring (Compact Flush mounting)



3phase 4wiring (Compact Flush mounting)

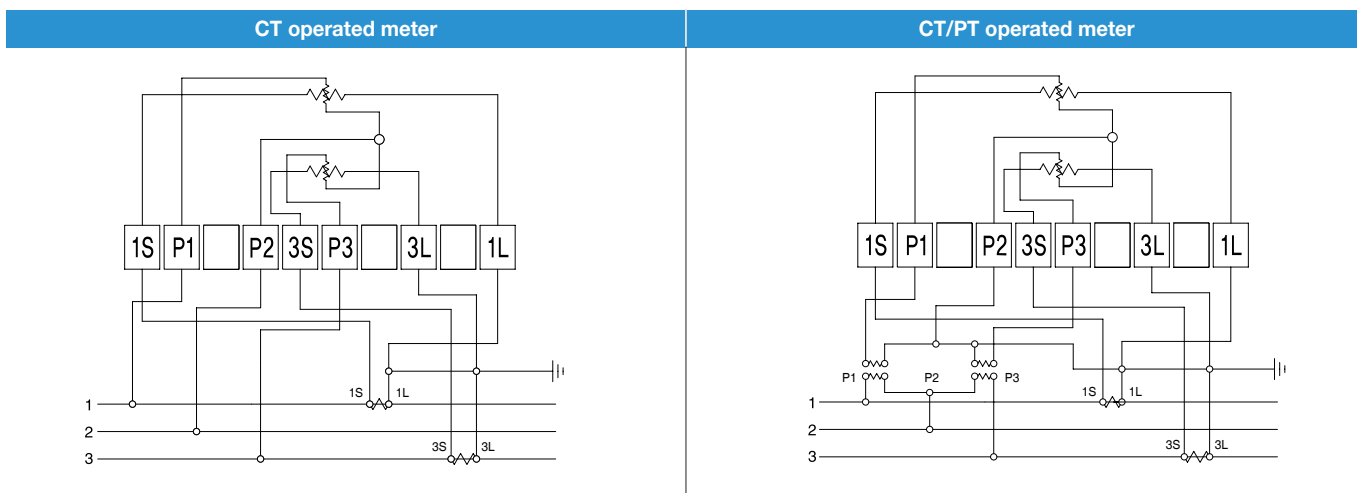


Digital Electricity Meter

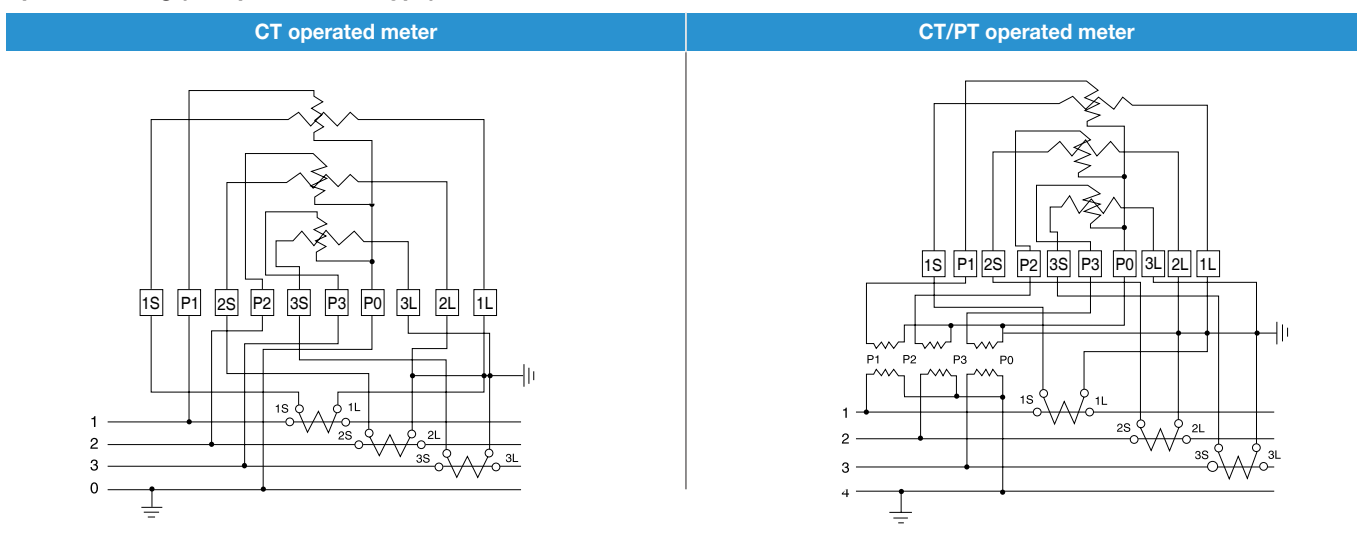
Diagram

LD series (CT/PT operated meter)

3phase 3wiring (Compact Surface type)



3phase 4wiring (Compact Surface type)



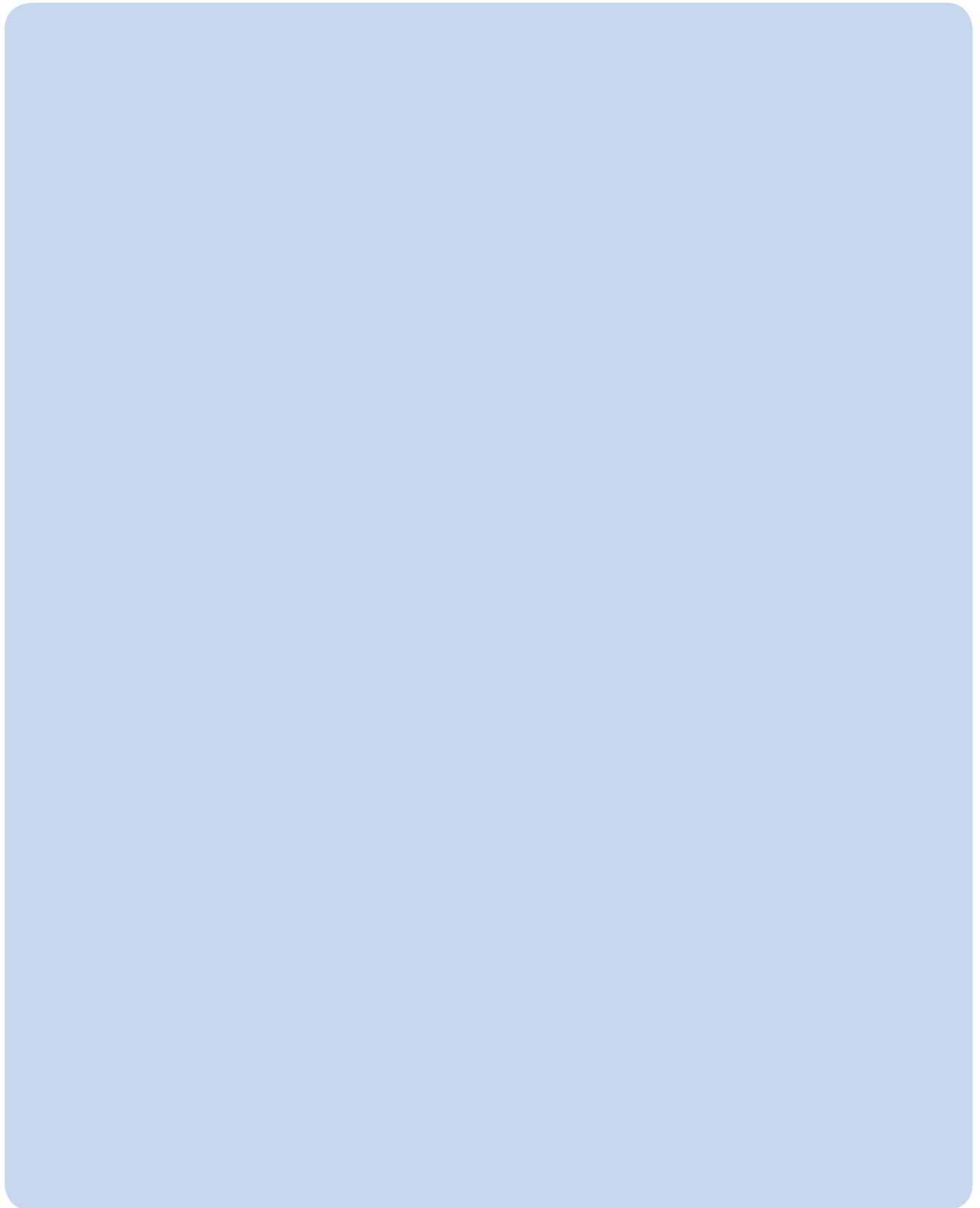
Specification of the wire

Rating current (A)	Wire size (mm)		Terminal hole diameter	Remark
	Min	Max		
40(10)A	8mm ² (7/1.2) 10mm ² (7/1.35)	14mm ² (7/1.6) 16mm ² (7/1.7)	Ø6mm	Old standard New standard (IEC)
60(15)A	14mm ² (7/1.6) 16mm ² (7/1.7)	38mm ² (7/2.6) 35mm ² (7/2.52)	Ø8mm	Old standard New standard (IEC)
80(20)A	22mm ² (7/2.0) 25mm ² (7/2.14)	38mm ² (7/2.6) 50mm ² (19/1.78)	Ø9mm	Old standard New standard (IEC)
120(30)A	38mm ² (7/2.6) 25mm ² (7/2.14)	60mm ² (19/2.0) 50mm ² (19/1.78)	Ø11mm	Old standard New standard (IEC)

MEMO

Digital Electricity Meter

MEMO



MEMO



Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.



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■ Head Quarter

127 LS-ro (Hogye-dong) Dongan-gu, Anyang-si,
Gyeonggi-Do, 14119, Korea
Tel. 82-2-2034-4902, 4684, 4429 Fax: 82-2-2034-4555

■ Overseas Subsidiaries

- **LSIS(Dalian) Co., Ltd.** (Dalian, China)
Tel: 86-411-8730-7510 Fax: 86-411-8730-7560 E-Mail: dskim@lsis.com
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Tel: 800-891-2941 Fax: 847-383-6543 E-Mail: sales.us@lsis.com



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- **LSIS Beijing Office** (China)
Tel: 86-10-5761-3127 Fax: 86-10-5761-3128 E-Mail: htroh@lsis.com
- **LSIS Guangzhou Office** (China)
Tel: 86-20-8326-6784 Fax: 80-20-8326-6287 E-Mail: sojhtroh@lsis.com
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- **LSIS Jinan Office** (China)
Tel: 86-531-8699-7826 Fax: 86-531-8697-7628 E-Mail: yangcf@lsis.com
- **LSIS Co., Ltd. Tokyo Office** (Japan)
Tel: 81-3-6268-8241 Fax: 81-3-6268-8240 E-Mail: jschuna@lsis.com
- **LSIS Co., Ltd. Rep. Office** (Vietnam)
Tel: 84-8-3823-7890 E-Mail: sjbaik@lsis.com
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- **LSIS Jakarta Office** (Indonesia)
Tel: 62-21-293-7614 E-Mail: diroh@lsis.com