



# PRECISE SPLIT-CORE AC CURRENT TRANSDUCER



Miniature Split-core AC Current Transformer is suitable for primary ranges from 5A to 2,400A AC with 4-20mA, 0-5V, 0-10V DC secondary.

It improves both intrinsic errors in low current and errors occurred by external vibration and shock with strong durability and minimum tolerance on cutting cross section of core. Main applications are sub metering, power meter, PLC (Programmable Logic Controller), energy automation and etc.



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## PRECISION SPLIT-CORE CURRENT TRANSDUCER

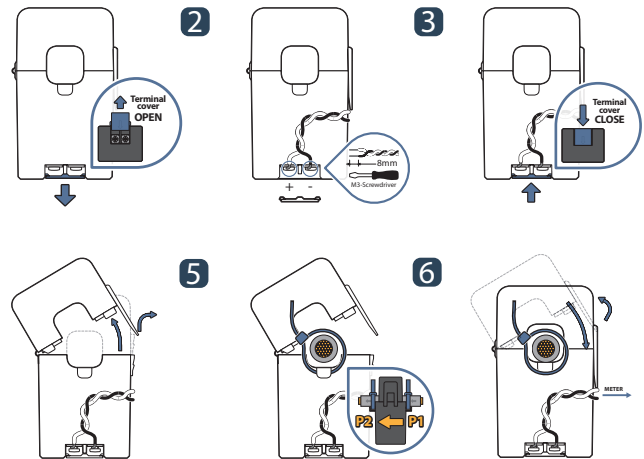
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# PRECISION SPLIT-CORE CURRENT TRANSDUCER JCXXX-XXX-RMS series



## HOW TO USE ①



The Split-core Current Transducer, RMS Series, is designed for energy management, with a convenient connection to electronic submeter. It may also be applied for current measurement in a system of distributed power line carriers (PLCs) or remote controls such as SCADA software for automation and supervision. Other applications include security and condition monitoring, load monitoring, in protection systems, and for predictive maintenance of conveyers, pumps or HVAC motors.

### APPLICATIONS

- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans
- Lighting

### FEATURES

- Nylon-spring, output-terminal, secure locking hinge, one-touch structure makes easy to install to the existent equipments such as a power distribution boards.
- Isolated plastic case recognized according to UL94-V0
- UL / EN 61010 -1 certified

### BENEFITS

- Small-size, light-weight
- Simple Installation
- Over-Voltage protection circuit is installed.

### NOTICE

- If you impact the core contact surface, internal core material could be damaged.(Ø16 type)
- Core contact surface is waterproofed, however if it gets rusty, you could reuse after removing rusts with spraying WD-40 or CRC5-56 on the rusted side(Ø24, Ø36 type).
- Do not use any other chemicals except WD-40 or CRC5-56 on housing or any other parts.
- Please use only the original output screws. Not recommended to replace it with anything else.
- Customizing output lead wire

### SPECIFICATION

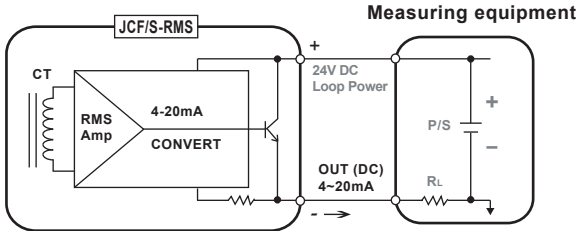
(F=50/60Hz)

Model	JCXXFXXX-RMS	JCXXSXXX-RMS	
	Ø16	Ø24	Ø36
Amperage Range	0-5, 10, 20, 25, 50, 100	250	500
Max. Allowable Current	120%(Continuous), 150%(1mim.)		
Output	4~20mA DC (RMS)/0~Rated Current (Load resistance : ≤ 600Ω at P/S : 24V)		
Accuracy / Linearity	±2% FS. Dynamic Range 1:100 at 50/60Hz Sinewave		
Sensor Supply Voltage	24V DC Loop Power (20-30 V DC(25mA Max.))		
Installation Category	100ms		
Output Ripple Voltage	Within 2% of Output Voltage		
Output Terminals	2 x M3-Screw, with Terminals cover		
Insulation Category	CATIII		
Operating Condition	-20°C~+50°C, ≤85%RH, No condensation, In-house & Any direction installable		
Storage Condition	-30°C~+90°C, ≤85%RH, No condensation		

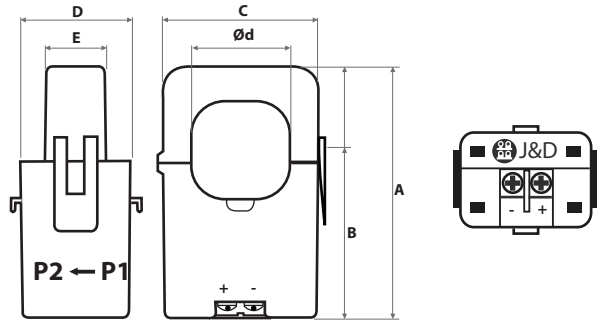


## INTERNAL CIRCUIT DRAWINGS / DIMENSIONS

JC RMS



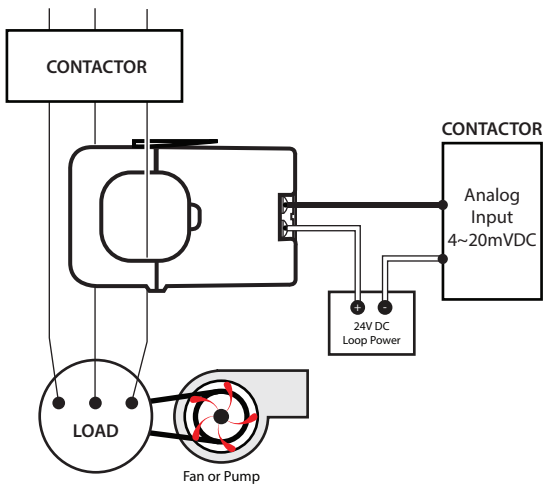
2-Wire Transmission method (Loop powered)  
using P/S(+ side) of Measuring equipment



Unit : mm

Model	A	B	C	D	E	Ød
JC16F	55	41	29.5	31	19	16
JC24S	74.5	52	45	34	22	24
JC36S	91	62	57	40.5	22	36

## APPLICATIONS

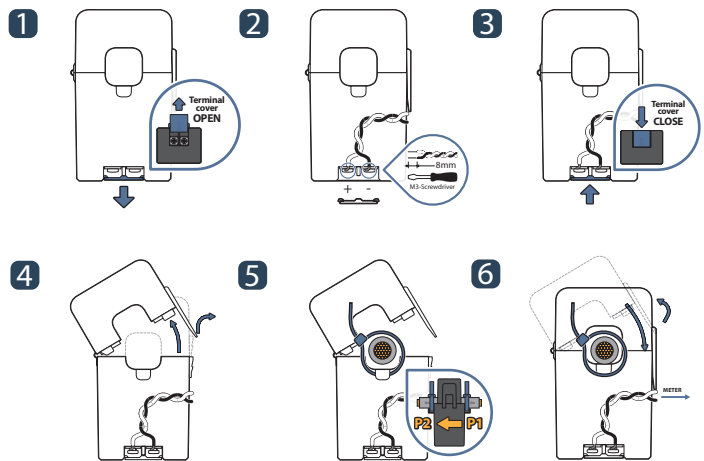




# PRECISION SPLIT-CORE CURRENT TRANSDUCER JSXXX-XXX-RMS series



## HOW TO USE



Split-core current transducer for the electronic measurement of AC waveform currents, with galvanic isolation between the primary circuit (power) and the secondary circuit (measurement). 4-20mA DC output proportional to the RMS value of the primary current.

## APPLICATIONS

- Automation and Supervision
- Safety and Condition Monitoring
- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans / Lighting

## BENEFITS

- High isolation between primary and secondary circuits
- Compact case
- Cost-effective solution
- Easy installation

## FEATURES

- Self-powered and loop-powered versions
- Operating range: -20°C to +60°C
- Isolation test voltage : 3kV RMS / 50Hz / 1min
- Sensing aperture : 21mm(for non-contact measurement)
- UL94-V0 recognized materials

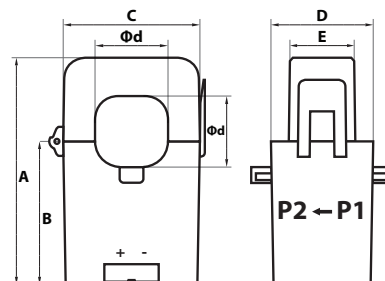
## NOTICE

- Current transformer and RMS circuit in a single case
- Choice of primary current ranges: 5 to 500A RMS
- Choice of standard output types: 4-20mA
- Accuracy: <2% of nominal primary current
- Bandwidth: 50/60 Hz

## SPECIFICATION

Rated Current (A)	
5, 10, 20, 25, 50, 75, 100, 150, 200, 250, 300, 400, 500	
Model	Output
JSXXX-XXX-RMS	4-20mA DC
Electrical Data	4~20mA DC (RMS)/0~Rated Current (Load resistance : ≤ 600Ω at P/S : 24V)

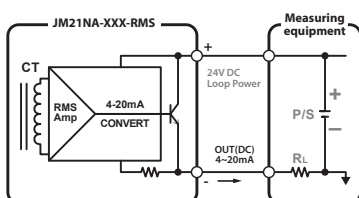
## DIMENSIONS



	JS17F/S	JS24F/S	JS36S
A	64.1	74.5	91.4
B	41.1	47	57
C	33.1	45	57.1
D	35.8	33.7	40.2
E	26.2	21.1	21.1
Ød	17	24	36

## INTERNAL CIRCUIT DRAWING

### • JSXXX-XXX-RMS



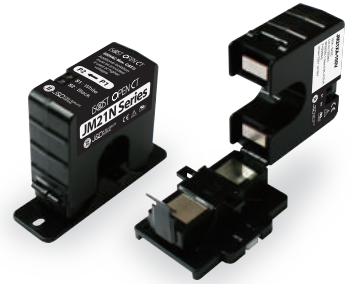
2-Wire Transmission method (Loop powered) using P/S(+ side) of Measuring equipment



# PRECISION SPLIT-CORE CURRENT TRANSDUCER

## JM21XA-XXX-XXX Series

Split-core current transducer for the electronic measurement of AC waveform currents, with galvanic isolation between the primary circuit (power) and the secondary circuit (measurement). 0-5V DC, 0-10V DC, 4-20mA DC output proportional to the RMS value of the primary current.



### MAIN CHARACTERISTICS

- Current transformer and RMS circuit in a single case
- Choice of primary current ranges: 5 to 250A RMS
- Choice of standard output types: 4-20mA, 0-5V or 0-10V
- Accuracy: <2% of nominal primary current
- Bandwidth: 50/60 Hz

### APPLICATIONS

- Automation and Supervision
- Safety and Condition Monitoring
- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans
- Lighting

### FEATURES

- Self-powered and loop-powered versions
- Operating range: -20°C to +60°C
- Isolation test voltage : 3.5kV RMS / 50Hz / 1min
- Sensing aperture : 21mm(for non-contact measurement)
- UL94-V0 recognized materials

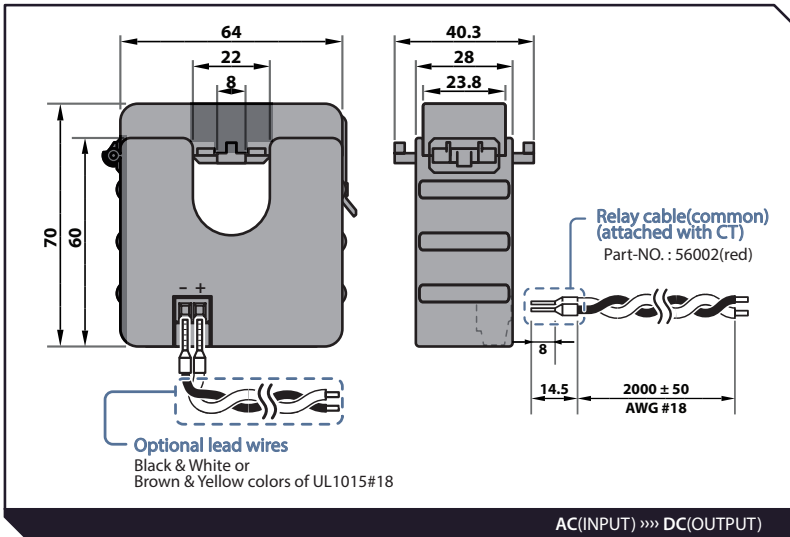
### ADVANTAGES

- High isolation between primary and secondary circuits
- Compact case
- Cost-effective solution
- Easy installation

### SPECIFICATION

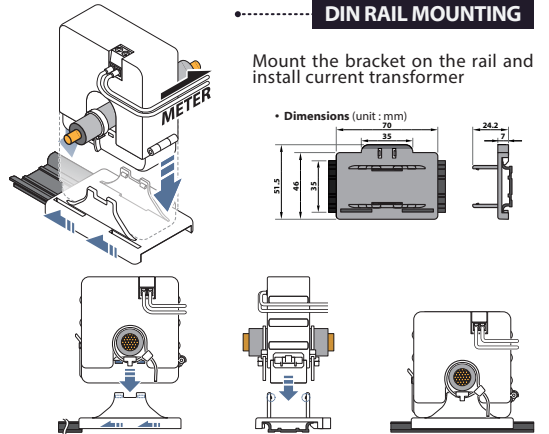
Rated Current (A)	5, 10, 20, 25, 50, 75, 100, 150, 200, 250	
Model	Output	Electrical Data
JM21XA-XXX-V	0-5V DC	Output Impedance 5.8kΩ(Self Power) & Average output
JM21XA-XXX-VH	0-10V DC	Output Impedance 23kΩ(Self Power) & Average output
JM21XA-XXX-RMS	4-20mA DC	4~20mA DC (RMS)/0~Rated Current (Load resistance : ≤ 600Ω at P/S : 24V)

### DIMENSIONS (UNIT : MM)

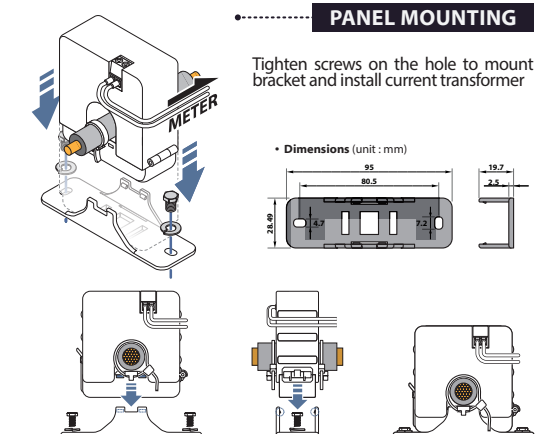


### ACCESSORY OPTION

#### DIN RAIL MOUNTING

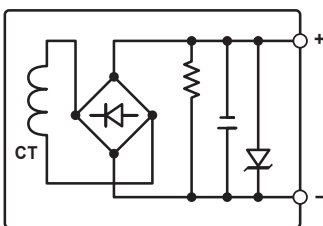


#### PANEL MOUNTING

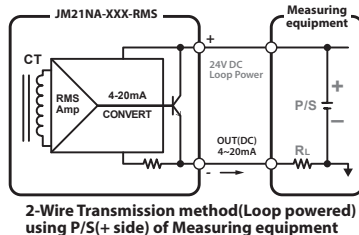


### INTERNAL CIRCUIT DRAWING

#### • JM21XA-XXX-V/VH



#### • JM21XA-XXX-RMS

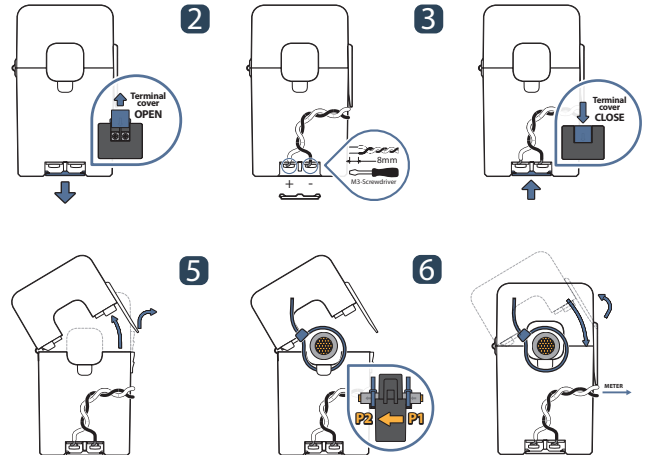




# PRECISION SPLIT-CORE CURRENT TRANSDUCER JCXXX-XXX-V series



## HOW TO USE 1



The Split-core Current Transducer, V Series, is designed for energy management, with a convenient connection to electronic submeter. It may also be applied for current measurement in a system of distributed power line carriers (PLCs) or remote controls such as SCADA software for automation and supervision. Other applications include security and condition monitoring, load monitoring, in protection systems, and for predictive maintenance of conveyers, pumps or HVAC motors.

### APPLICATIONS

- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans
- Lighting

### FEATURES

- Nylon-spring, output-terminal, secure locking hinge, one-touch structure makes easy to install to the existent equipments such as a power distribution boards.
- Isolated plastic case recognized according to UL94-V0
- UL / EN 61010 -1 certified

### BENEFITS

- Small-size, light-weight
- Simple Installation
- Over-Voltage protection circuit is installed.

### NOTICE

- If you impact the core contact surface, internal core material could be damaged.(Ø10, Ø16 type)
- Core contact surface is waterproofed, however if it gets rusty, you could reuse after removing rusts with spraying WD-40 or CRC5-56 on the rusted side(Ø24, Ø36 type).
- Do not use any other chemicals except WD-40 or CRC5-56 on housing or any other parts.
- Please use only the original output screws. Not recommended to replace it with anything else.
- Customizing output lead wire

### SPECIFICATION

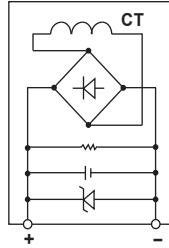
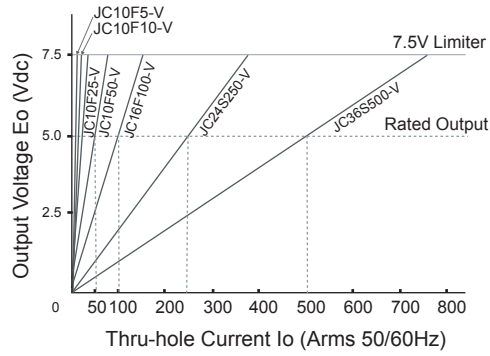
(F=50/60Hz)

Model	JCXXFXXX-V						JCXXSXXX-V	
	Ø10		Ø16		Ø24		Ø36	
Current Range(Arms)	5	10	20	25	50	100	250	500
Max. Allowable Current	100%(Continuous), 150%(1min.)							
Output	0~5V DC (Average)/0~Rated Current, 7.5V DC Limiter built-in							
Accuracy / Linearity	±2% FS. Dynamic Range 1:100(50/60Hz Sinewave)							
Output Impedance	7 kΩ	8.5 kΩ	6.8 kΩ	6.8 kΩ	6.2 kΩ	5.8 kΩ	5.8 kΩ	5.8 kΩ
Sensor Supply Voltage	Self-Powered							
Response Time	300ms							
Output Ripple Voltage	Within 5% of Output Voltage							
Output Terminals	2 x M3-Screw, with Terminals cover							
Insulation Category	CAT III							
Operating Condition	-20°C~+50°C, ≤85%RH, No condensation, In-house & Any direction installable							
Storage Condition	-30°C~+90°C, ≤85%RH, No condensation							



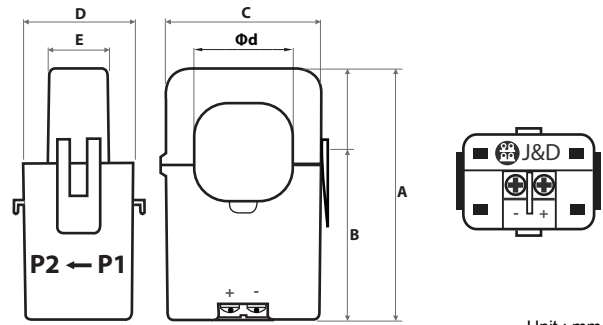
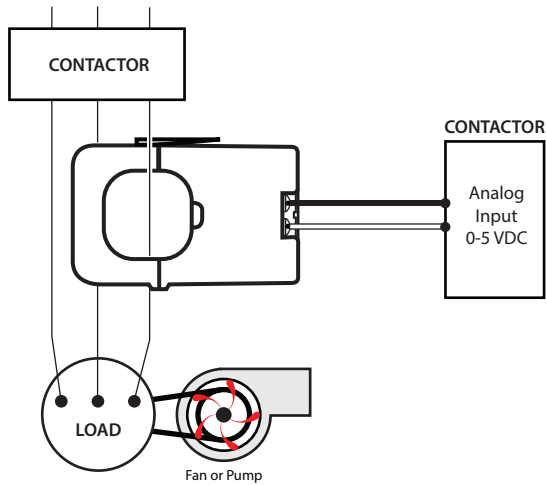
## PERFORMANCE / INTERNAL CIRCUIT DRAWINGS

### JCV Average



		JCØFXXX-V				JCØSXXX-V		
Std. Model	Ø	10				16	24	36
	XXX	5	10	20	25	50	100	250
Output Impedance(kΩ)		7	8.5	6.8	6.2	5.8		

## APPLICATIONS / DIMENSION



Unit : mm

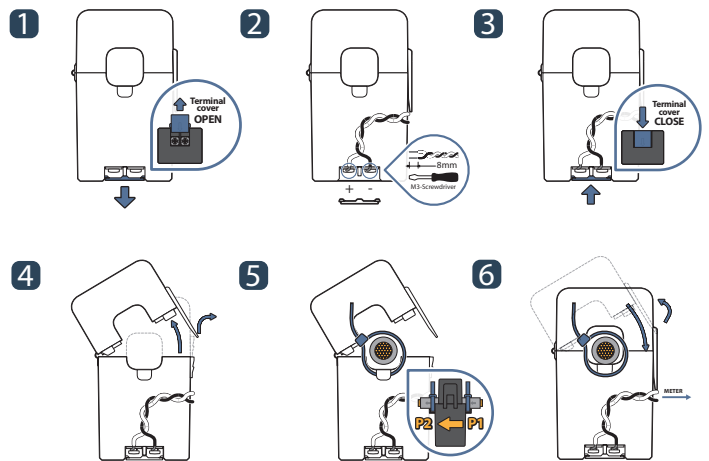
Model	A	B	C	D	E	Ød
JC10F	50	38	23	26	14.5	10
JC16F	55	41	29.5	31	19	16
JC24S	74.5	52	45	34	22	24
JC36S	91	62	57	40.5	22	36



# PRECISION SPLIT-CORE CURRENT TRANSDUCER JSXXX-XXX-V series



## HOW TO USE



Split-core current transducer for the electronic measurement of AC waveform currents, with galvanic isolation between the primary circuit (power) and the secondary circuit (measurement). 0-5V DC output proportional to the RMS value of the primary current.

### APPLICATIONS

- Automation and Supervision
- Safety and Condition Monitoring
- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans / Lighting

### BENEFITS

- High isolation between primary and secondary circuits
- Compact case
- Cost-effective solution
- Easy installation

### SPECIFICATION

Rated Current (A)	
5, 10, 20, 25, 50, 75, 100, 150, 200, 250, 300, 400, 500	
Model	Output
JSXXX-XXX-V	0-5V DC
Electrical Data	Output Impedance 5.8kΩ(Self Power) & Average output

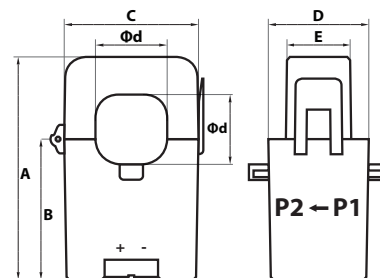
### FEATURES

- Self-powered and loop-powered versions
- Operating range: -20°C to +60°C
- Isolation test voltage : 3kV RMS / 50Hz / 1min
- Sensing aperture : 21mm(for non-contact measurement)
- UL94-V0 recognized materials

### NOTICE

- Current transformer and RMS circuit in a single case
- Choice of primary current ranges: 5 to 500A RMS
- Choice of standard output types: 0-5V DC
- Accuracy: <2% of nominal primary current
- Bandwidth: 50/60 Hz

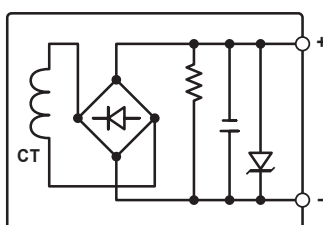
### DIMENSIONS



	JS17F/S	JS24F/S	JS36S
A	64.1	74.5	91.4
B	41.1	47	57
C	33.1	45	57.1
D	35.8	33.7	40.2
E	26.2	21.1	21.1
Ød	17	24	36

### INTERNAL CIRCUIT DRAWING

#### • JSXXX-XXX-V/VH

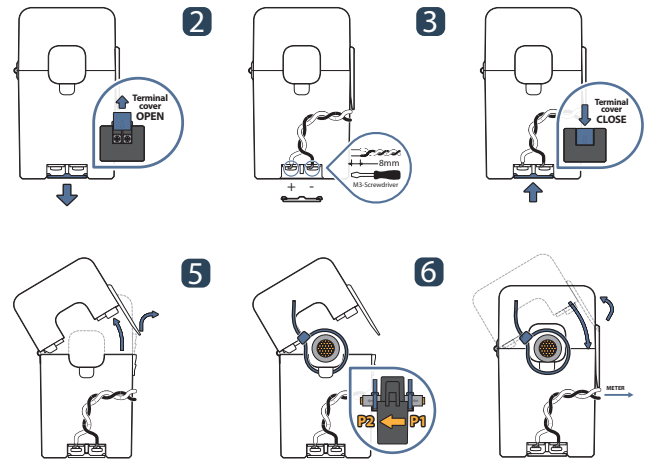




# PRECISION SPLIT-CORE CURRENT TRANSDUCER JCXXX-XXX-VH series



## HOW TO USE 1



The Split-core Current Transducer, VH Series, is designed for energy management, with a convenient connection to electronic submeter. It may also be applied for current measurement in a system of distributed power line carriers (PLCs) or remote controls such as SCADA software for automation and supervision. Other applications include security and condition monitoring, load monitoring, in protection systems, and for predictive maintenance of conveyers, pumps or HVAC motors.

### APPLICATIONS

- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans
- Lighting

### FEATURES

- Nylon-spring, output-terminal, secure locking hinge, one-touch structure makes easy to install to the existent equipments such as a power distribution boards.
- Isolated plastic case recognized according to UL94-V0
- UL / EN 61010 -1 certified

### BENEFITS

- Small-size, light-weight
- Simple Installation
- Over-Voltage protection circuit is installed.

### NOTICE

- If you impact the core contact surface, internal core material could be damaged.(Ø16 type)
- Core contact surface is waterproofed, however if it gets rusty, you could reuse after removing rusts with spraying WD-40 or CRC5-56 on the rusted side(Ø24, Ø36 type).
- Do not use any other chemicals except WD-40 or CRC5-56 on housing or any other parts.
- Please use only the original output screws. Not recommended to replace it with anything else.
- Customizing output lead wire

### SPECIFICATION

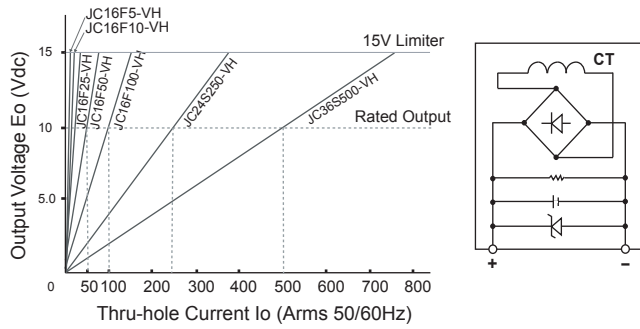
(F=50/60Hz)

Model	JCXXFXXX-VH		JCXXSXXX-VH	
	Ø16	Ø24	Ø24	Ø36
Current Range(Arms)	0-5, 10, 20, 25, 50, 100	250	250	500
Max. Allowable Current	100%(Continuous), 150%(1mim.)			
Output	0~10V DC (Average)/0~Rated Current, 15V DC Limiter built-in			
Accuracy / Linearity	±2% FS. Dynamic Range 1:100 at 50/60Hz Sinewave			
Output Impedance	23 kΩ			
Sensor Supply Voltage	Self-Powered			
Response Time	300ms			
Output Ripple Voltage	Within 5% of Output Voltage			
Output Terminals	2 x M3-Screw, with Terminals cover			
Insulation Category	CATIII			
Operating Condition	-20°C~+50°C, ≤85%RH, No condensation, In-house & Any direction installable			
Storage Condition	-30°C~+90°C, ≤85%RH, No condensation			



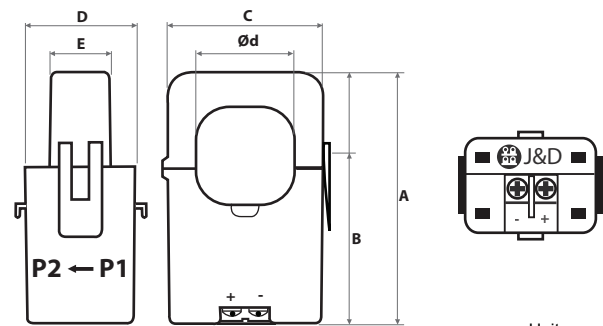
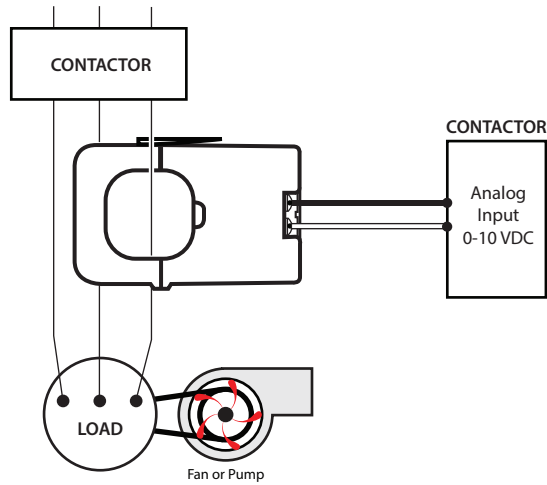
## PERFORMANCE / INTERNAL CIRCUIT DRAWINGS

### JC-VH Average



		JCØFXXX-VH					JCØSXXX-VH	
Std. Model	Ø	16					24	36
	XXX	5	10	20	25	50	100	250
Output Impedance(kΩ)		23						

## APPLICATIONS / DIMENSIONS



Unit : mm

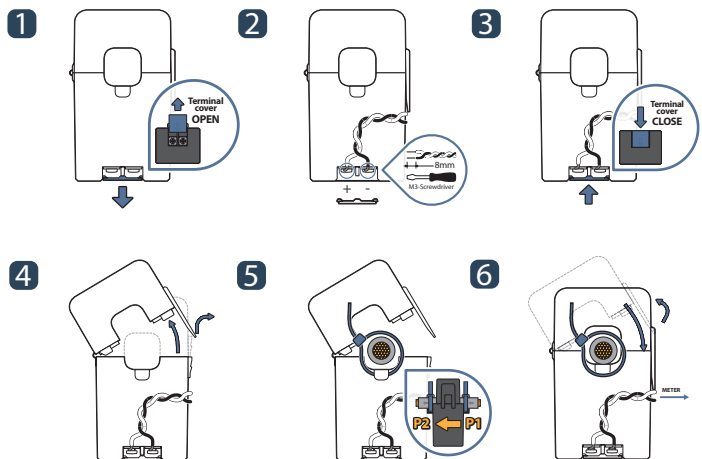
Model	A	B	C	D	E	Ød
JC16F	55	41	29.5	31	19	16
JC24S	74.5	52	45	34	22	24
JC36S	91	62	57	40.5	22	36



# PRECISION SPLIT-CORE CURRENT TRANSDUCER JSXXX-XXX-VH series



## HOW TO USE



Split-core current transducer for the electronic measurement of AC waveform currents, with galvanic isolation between the primary circuit (power) and the secondary circuit (measurement). 0-10V DC output proportional to the RMS value of the primary current.

### APPLICATIONS

- Automation and Supervision
- Safety and Condition Monitoring
- HVAC & Pumps
- Refrigeration
- Small Industrial Motors
- Fans / Lighting

### BENEFITS

- High isolation between primary and secondary circuits
- Compact case
- Cost-effective solution
- Easy installation

### SPECIFICATION

Rated Current (A)	
5, 10, 20, 25, 50, 75, 100, 150, 200, 250, 300, 400, 500	
Model	Output
JSXXX-XXX-VH	0-10V DC
Electrical Data	Output Impedance 23kΩ(Self Power) & Average output

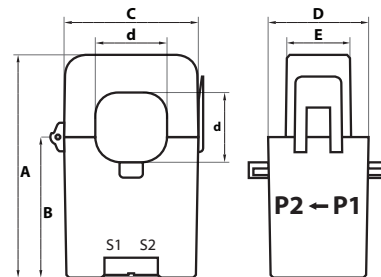
### FEATURES

- Self-powered and loop-powered versions
- Operating range: -20°C to +60°C
- Isolation test voltage : 3kV RMS / 50Hz / 1min
- Sensing aperture : 21mm(for non-contact measurement)
- UL94-V0 recognized materials

### NOTICE

- Current transformer and RMS circuit in a single case
- Choice of primary current ranges: 5 to 500A RMS
- Choice of standard output types: 0-10V DC
- Accuracy: <2% of nominal primary current
- Bandwidth: 50/60 Hz

### DIMENSIONS



	JS17F/S	JS24F/S	JS36S
A	64.1	74.5	91.4
B	41.1	47	57
C	33.1	45	57.1
D	35.8	33.7	40.2
E	26.2	21.1	21.1
Ød	17	24	36

### INTERNAL CIRCUIT DRAWING

#### • JSXXX-XXX-V/VH

