

Future from Quality

Electrical Monitor And Transducer Modules
Catalogue 2011

Future from Quality

Shanghai Chenzhu Instrument Co. Ltd (Chenzhu) was founded in April, 2002 and was honored with the title of "Hi-Tech Enterprise of Shanghai". Before, it was the isolated barrier department of Shanghai Institute of Process Automation Instrument (SIPAI).

There is a professional and efficient R&D (Research & development) team in Chenzhu, based on the technology and experience accumulated in SIPAI in the field of automatic control, which is in charge of several state-level Key Programs for Science & Technology, and key projects of high-tech achievements transformation. All of our products have independent intellectual property rights.

We are now compliant with ISO 9001 : 2008 Quality Management System and ISO14001 : 2004 Environment Management System. All of our products have achieved more than 10 international certificates including IECEx, ATEX, CE, UL, SIL, NEPSI, CCS, etc.

Nowadays an effective manufacturing system has been established; including isolated barrier, signal isolator, electrical monitor and transducer, surge protection device and temperature transmitter and so on, covering 10 categories, hundreds of product models. A comprehensive network of marketing, sales & technical service has been established in Chenzhu. In the past several years, our production and sales are increasing 50% per year. Now Chenzhu has become a leading supplier of isolation barriers in the domestic automation market.

We insist about "Future from quality" and we'll keep improving.

Domestic and international certificates



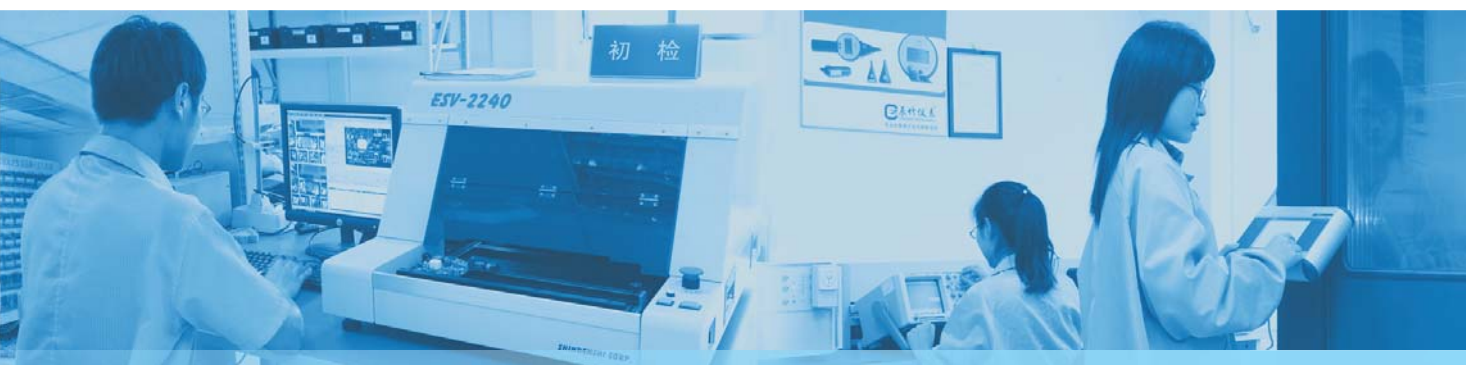
Certificate of quality management system according to ISO9001:2008

Equivalent of IECEx certificate

CE certificate

Lighting protection Performance

Functional safety certificate (SIL)



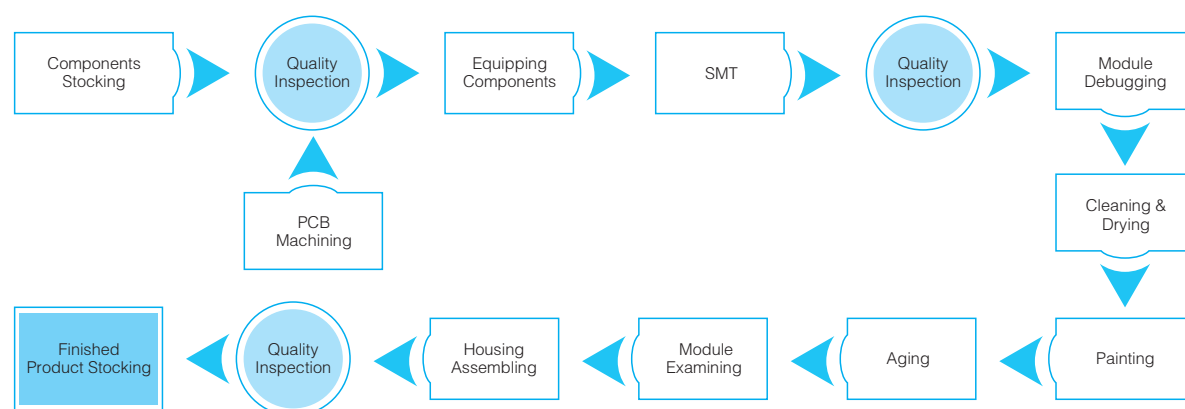
Our R&D Team and Manufacturing System

Innovation is the internal impetus for the corporation to grow constantly in the competitive market

There is a professional R&D Team and well-equipped laboratory in Chenzhu. 30% of our employees are engaged in R&D department, and half of them are Senior & Intermediate engineers. Since 2006, Chenzhu has made a huge investment in the lab, in which we have several equipments used in testing performance of our products, such as environmental adaptation, EMC, function safety and so on. Based on a strong reserves of manpower and advanced hardware establishment, and continuously on enhancing technical level.

Advanced manufacture system and management are the basics of the products with stable quality

There is an assembly manufacturing line, with several advanced equipments, such as new YAMAHA (Japan) SMT automatic product line, automatic ultrasonic cleaning system, PVA (U.S.A.) painting system, on-line system aging monitoring, automatic detecting & noting system etc. ERP enterprise resources management is implemented in the whole manufacturing system, putting information management into every craftwork flow, production data and production task. Based on rigid production management, Chenzhu supplies the perfect products for customers.



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ETM Series—Electrical Monitoring Relay

Type	Feature	Monitoring functions	Input	Supply voltage	Page
ETM-1V-300SU	Single-phase Voltage Monitoring Relay	Undervoltage	0 ~ 30V/60V/300V AC/DC	20 ~ 260V AC/DC	6
ETM-1V-300SO	Single-phase Voltage Monitoring Relay	Overvoltage	0 ~ 30V/60V/300V AC/DC	20 ~ 260V AC/DC	6
ETM-1V-300	Single-phase Voltage Monitoring Relay	Undervoltage, overvoltage, window	0 ~ 30V/60V/300V AC/DC	20 ~ 260V AC/DC	6
ETM-3V-400S	Three-phase Voltage Monitoring Relay	Window	L-L:0~400V AC	20 ~ 260V AC/DC	7
ETM-3V-400SN	Three-phase Voltage Monitoring Relay	Window, connect with neutral conductor	L-L:0~400V/L-N:0~230V AC	20 ~ 260V AC/DC	7
ETM-3V-400	Three-phase Voltage Monitoring Relay	Undervoltage, phase sequence asymmetry, window	L-L:0~400V/L-N:0~230V AC	20 ~ 260V AC/DC	8
ETM-3V-230	Three-phase Voltage Monitoring Relay	Undervoltage, phase sequence asymmetry, window	L-L:0~230V/L-N:0~132V AC	20 ~ 260V AC/DC	8
ETM-I-10SU	Single-phase Current Monitoring Relay	Undercurrent	0 ~ 100mA/1A/10A AC/DC	20 ~ 260V AC/DC	9
ETM-I-10SO	Single-phase Current Monitoring Relay	Overcurrent	0 ~ 100mA/1A/10A AC/DC	20 ~ 260V AC/DC	9
ETM-I-10	Single-phase Current Monitoring Relay	Undercurrent, overcurrent, window	0 ~ 100mA/1A/10A AC/DC	20 ~ 260V AC/DC	9
ETM-PH-400	Phase Sequence Monitoring Relay	Phase sequence, phase failure	L-L:0~400V/L-N:0~230V AC	Powered by input voltage	10
ETM-PF-400	Power Factor Monitoring Relay	Overload, underload, window	Single-phase 40~415V AC Three-phase L-L:40~415V/L-N:23~240V AC Input current 0.5~10A AC	20 ~ 260V AC/DC	11
ETM-F-100K	Rotational Speed Monitoring Relay	Underspeed, overspeed, window	0.1Hz~100KHz Switch, NAMUR sensor, frequency generator NPN/PNP transistor output	20 ~ 35V DC	12
ETM-F-100KS	Rotational Speed Monitoring Relay (without display module)	Underspeed, overspeed, window	0.1Hz~100KHz Switch, NAMUR sensor, frequency generator NPN/PNP transistor output	20 ~ 35V DC	12
ETM-PTC	Temperature Monitoring Relay	Short or open circuit detection overtemperature	PTC thermistor resistance	20 ~ 260V AC/DC	13

ESC Series—Electrical Measuring Transducer

Type	Feature	Input	Output	Supply voltage	Page
ESC-I-5	Single-phase Current Transducer	0 ~ 1A/5A AC/DC	4 ~ 20mA/0 ~ 20mA	20 ~ 30V DC	15
ESC-I-30	Single-phase Current Transducer	0 ~ 10A/20A/30A AC/DC	0 ~ 5V/0 ~ 10V ± 5V/± 10V	20 ~ 30V DC	15
ESC-I-60	Single-phase Current Transducer	0 ~ 40A/50A/60A AC/DC		20 ~ 30V DC	15
ESC-VDC-400	Single-phase DC Voltage Transducer	± 24/48/120/250/400V DC	± 20mA/± 10V	20 ~ 30V DC	16
ESC-VAC-370	Single-phase AC Voltage Transducer	0~24/48/120/250/370V AC	4 ~ 20mA/0 ~ 20mA/0 ~ 10V	20 ~ 30V DC	16
ESC-R-100K	Location (Potentiometer) Transducer	0~100kΩ	4 ~ 20mA/0 ~ 20mA/0 ~ 10V	20 ~ 30V DC	17

CZDL Series—Miniature Electrical Measuring Transducer

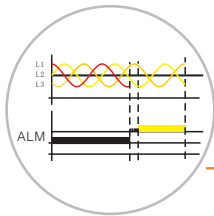
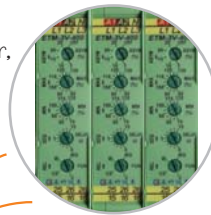
Type	Feature	Input	Output	Supply voltage	Page
CZDL-IAC-10	Single-phase AC Current Transducer	0~1A/5A/10A AC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	20 ~ 30V DC	19
CZDL-IAC-10L	Single-phase AC Current Transducer (Loop-powered)	0~1A/5A/10A AC	4 ~ 20mA	13.5 ~ 30V DC	19
CZDL-IAC-10A	Single-phase AC Current Transducer	0~1A/5A/10A AC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	90~260V AC	19
CZDL-IDC-10	Single-phase DC Current Transducer	0~1A/5A/10A DC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	20 ~ 30V DC	20
CZDL-IDC-10A	Single-phase DC Current Transducer	0~1A/5A/10A DC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	90~260V AC	20
CZDL-VAC-370	Single-phase AC Voltage Transducer	0~24/48/120/250/370V AC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	20 ~ 30V DC	21
CZDL-VAC-370L	Single-phase AC Voltage Transducer (Loop-powered)	0~24/48/120/250/370V AC	4 ~ 20mA	13.5 ~ 30V DC	21
CZDL-VAC-370A	Single-phase AC Voltage Transducer	0~24/48/120/250/370V AC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	90~260V AC	21
CZDL-VDC-400	Single-phase DC Voltage Transducer	± 24/48/120/250/400V DC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	20 ~ 30V DC	22
CZDL-VDC-400A	Single-phase DC Voltage Transducer	± 24/48/120/250/400V DC	4 ~ 20mA/0 ~ 20mA/1 ~ 5V/0 ~ 5V/0 ~ 10V	90~260V AC	22

ETM Series—Electrical Monitoring Relay

The ETM series are intelligent modules with the functions of electric quantity measuring, converting, monitoring, alarming and so on. The development takes the High-performance microcontrollers and high-precision AD converters as the core while taking the optimization algorithms as subsidiary. It is especially suitable for monitoring of large and medium-sized power units, ensuring the safe operation of the units.

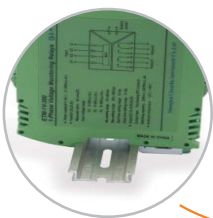
■ Convenient Configuration

With particular designed front potentiometer, it is flexible to adjust the parameters of the modules, such as the threshold values, delay time and functions, and so on.



■ Intelligent Monitoring

The modules offer a cost-effective solution for the monitoring tasks such as current, voltage, phase parameters, and so on.

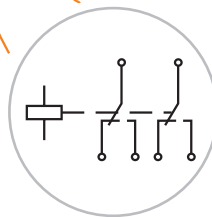
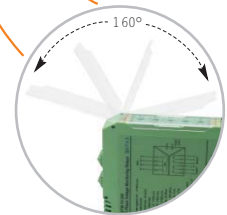


■ Convenient Installation

Easy installation with 35mm DIN rail according to GB/T 19334 (IEC 60715)

■ Operating Condition Visible

With the transparent plexiglass, the operating condition is visible. Users can configure the parameters conveniently when open the transparent plexiglass.



■ Alarm Outputs

With single or double SPDT relays outputs, drive capability of which is 250V AC, 3A, the modules can drive the contactors directly.

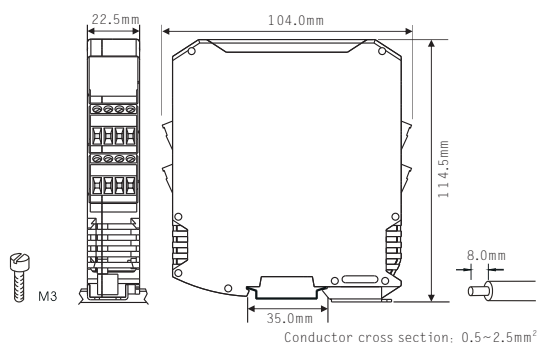
Single-phase Voltage Monitoring Relay

Features

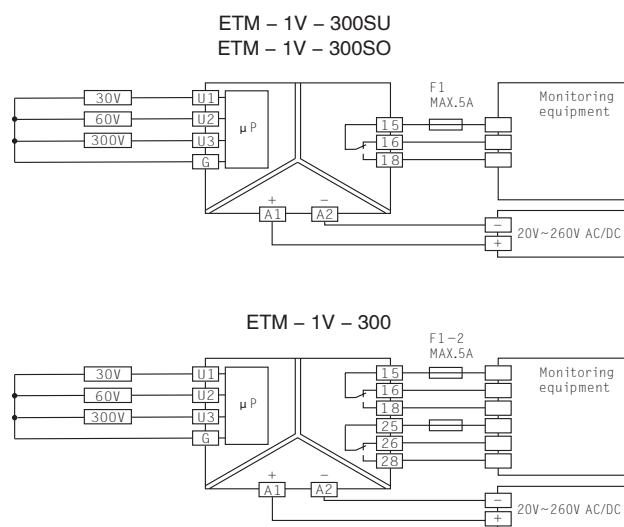
- Single-phase voltage monitoring
- Parameters adjustable
- Colored LED indication

	ETM – 1V – 300SU	ETM – 1V – 300SO	ETM – 1V – 300
	Undervoltage monitoring	Overvoltage monitoring	Undervoltage monitoring Overvoltage monitoring Window function
Input			
Input voltage (Un)	0V ~ 30V/60V/300V AC/DC	0V ~ 30V/60V/300V AC/DC	0V ~ 30V/60V/300V AC/DC
Max. input voltage (Umax)	100V/150V/450V AC/DC	100V/150V/450V AC/DC	100V/150V/450V AC/DC
Input resistance	47k Ω /100k Ω /470k Ω	47k Ω /100k Ω /470k Ω	47k Ω /100k Ω /470k Ω
Output			
Contact type	1 floating SPDT	1 floating SPDT	2 floating SPDT contacts
Nominal switching capacity	3A/250V AC	3A/250V AC	3A/250V AC
Expected life, electrical	2 × 10 ⁵ cycles	2 × 10 ⁵ cycles	2 × 10 ⁵ cycles
Expected life, mechanical	1 × 10 ⁷ cycles	1 × 10 ⁷ cycles	1 × 10 ⁷ cycles
Output fuse (fast-blow)	5A	5A	5A
General data			
Supply voltage	20V ~ 260V AC/DC	20V ~ 260V AC/DC	20V ~ 260V AC/DC
Nominal power consumption	4VA(1.5W)	4VA(1.5W)	4VA(1.5W)
Frequency range	48Hz ~ 400Hz	48Hz ~ 400Hz	48Hz ~ 400Hz
Min. setting range (of Un)	5% ~ 95%	5% ~ 95%	5% ~ 95%
Max. setting range (of Un)	10% ~ 100%	10% ~ 100%	10% ~ 100%
Response delay	0.2s ~ 10s	0.2s ~ 10s	0.1s ~ 10s
Start delay	200ms(fixed)	200ms(fixed)	0s ~ 10s
Recovery time	500ms	500ms	500ms
Basic accuracy	≤5% F.S.	≤5% F.S.	≤5% F.S.
Setting accuracy	≤5% F.S.	≤5% F.S.	≤5% F.S.
Repeat accuracy	≤2% F.S.	≤2% F.S.	≤2% F.S.
Temperature coefficient	≤0.1%/°C	≤0.1%/°C	≤0.1%/°C
Operation temperature range	-25°C ~ +60°C	-25°C ~ +60°C	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C	-40°C ~ +80°C	-40°C ~ +80°C
Rel. humidity	15% ~ 90%	15% ~ 90%	15% ~ 90%
Pollution degree	3	3	3
EMC standards	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm × 104.0mm × 22.5mm	114.5mm × 104.0mm × 22.5mm	114.5mm × 104.0mm × 22.5mm
Insulation coordination			
Standards	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output~Power)	2500V AC, 1min	2500V AC, 1min	2500V AC, 1min
Impulse withstand voltage	4000V	4000V	4000V
Insulation resistance	100M Ω	100M Ω	100M Ω
Degree of protection	IP20	IP20	IP20

Dimensions



Connection



Three-phase Voltage Monitoring Relay

Features

- Three-phase voltage monitoring
- Parameters adjustable
- Colored LED indication

Input

Input voltage (Un)	
Max. input voltage (Umax)	
Input resistance	

Output

Contact type	
Nominal switching capacity	
Expected life, electrical	
Expected life, mechanical	
Output fuse (fast-blow)	

General data

Supply voltage	
Nominal power consumption	
Frequency range	
Min. setting range (to Un)	
Max. setting range (to Un)	
Response delay	
Recovery time	
Basic accuracy	
Setting accuracy	
Repeat accuracy	
Temperature coefficient	
Operation temperature range	
Storage temperature range	
Rel. humidity	
Pollution degree	
EMC standards	
Dimensions	

Insulation coordination

Standards	
Insulation voltage (Input~Output~Power)	
Impulse withstand voltage	
Insulation resistance	
Degree of protection	

ETM - 3V - 400S

Window function

L-L:0V~400V AC	
L-L:600V AC	
1M Ω	

1 floating SPDT	
3A/250V AC	
2 × 10 ⁵ cycles	
1 × 10 ⁷ cycles	
5A	

20V ~ 260V AC/DC	
4VA(1.5W)	
48Hz ~ 400Hz	
-30% ~ +20%	
-20% ~ +30%	
0.2s ~ 10s	
500ms	
≤5% F.S.	
≤5% F.S.	
≤2% F.S.	
≤0.1%/°C	
-25°C ~ +60°C	
-40°C ~ +80°C	
15% ~ 90%	
3	
GB/T 18268.1 (IEC 61326-1)	
114.5mm × 104.0mm × 22.5mm	

ETM - 3V - 400SN

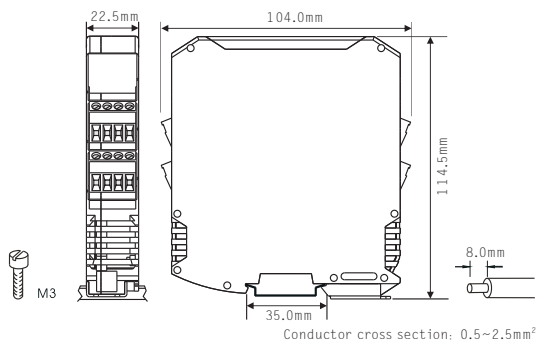
Window function with neutral conductor N

L-L:0V~400V AC	L-N:0V~230V AC
L-L:600V AC	L-N:350V AC
1M Ω	

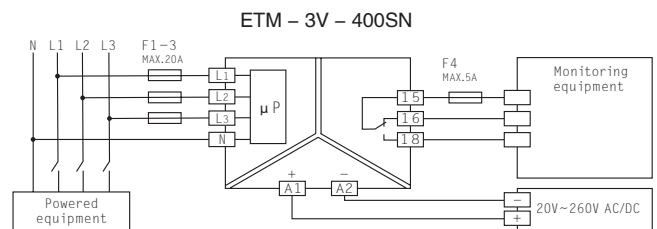
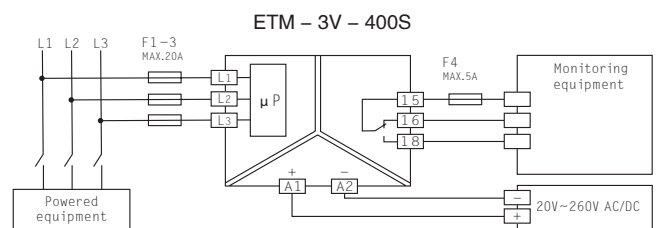
1 floating SPDT	
3A/250V AC	
2 × 10 ⁵ cycles	
1 × 10 ⁷ cycles	
5A	

20V ~ 260V AC/DC	
4VA(1.5W)	
48Hz ~ 400Hz	
-30% ~ +20%	
-20% ~ +30%	
0.2s ~ 10s	
500ms	
≤5% F.S.	
≤5% F.S.	
≤2% F.S.	
≤0.1%/°C	
-25°C ~ +60°C	
-40°C ~ +80°C	
15% ~ 90%	
3	
GB/T 18268.1 (IEC 61326-1)	
114.5mm × 104.0mm × 22.5mm	

Dimensions



Connection



Three-phase Voltage Monitoring Relay

Features

- Three-phase voltage monitoring
- Parameters adjustable
- Colored LED indication

Input

Input voltage (Un)	
Max. input voltage (Umax)	
Input resistance	

Output

Contact type	
Nominal switching capacity	
Expected life, electrical	
Expected life, mechanical	
Output fuse (fast-blow)	

General data

Supply voltage	
Nominal power consumption	
Frequency range	
Min. setting range (to Un)	
Max. setting range (to Un)	
Response delay	
Asymmetry	
Recovery time	
Basic accuracy	
Setting accuracy	
Repeat accuracy	
Temperature coefficient	
Operation temperature range	
Storage temperature range	
Rel. humidity	
Pollution degree	
EMC standards	
Dimensions	

Insulation coordination

Standards	
Insulation voltage (Input~Output~Power)	
Impulse withstand voltage	
Insulation resistance	
Degree of protection	

ETM – 3V – 400

Undervoltage/Phase sequence monitoring
Asymmetry monitoring, Window function

L-L:0V~400V AC	L-N:0V~230V AC
L-L:600V AC	L-N:350V AC
1M Ω	

2 floating SPDT contacts	
3A/250V AC	
2 × 10 ⁵ cycles	
1 × 10 ⁷ cycles	
5A	

20V ~ 260V AC/DC	4VA(1.5W)	48Hz ~ 400Hz	-30% ~ +20%	-20% ~ +30%	0.1s ~ 10s	5% ~ 25%/OFF	500ms	≤5% F.S.	≤5% F.S.	≤2% F.S.	≤0.1%/°C	-25°C ~ +60°C	-40°C ~ +80°C	15% ~ 90%	3	GB/T 18268.1 (IEC 61326-1)	114.5mm × 104.0mm × 22.5mm
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GB4793.1 (IEC 61010-1)	2500V AC, 1min	4000V	100M Ω	IP20
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ETM – 3V – 230

Undervoltage/Phase sequence monitoring
Asymmetry monitoring, Window function

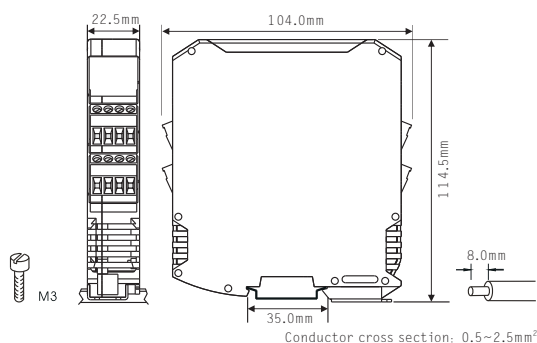
L-N:0V~132V AC	L-L:0V~230V AC
L-L:345V AC	L-N:200V AC
470k Ω	

2 floating SPDT contacts	
3A/250V AC	
2 × 10 ⁵ cycles	
1 × 10 ⁷ cycles	
5A	

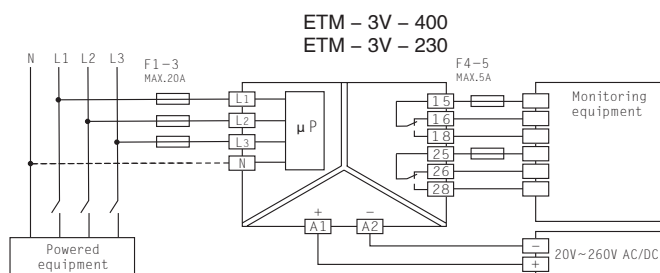
20V ~ 260V AC/DC	4VA(1.5W)	48Hz ~ 400Hz	-30% ~ +20%	-20% ~ +30%	0.1s ~ 10s	5% ~ 25%/OFF	500ms	≤5% F.S.	≤5% F.S.	≤2% F.S.	≤0.1%/°C	-25°C ~ +60°C	-40°C ~ +80°C	15% ~ 90%	3	GB/T 18268.1 (IEC 61326-1)	114.5mm × 104.0mm × 22.5mm
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GB4793.1 (IEC 61010-1)	2500V AC, 1min	4000V	100M Ω	IP20
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Dimensions



Connection



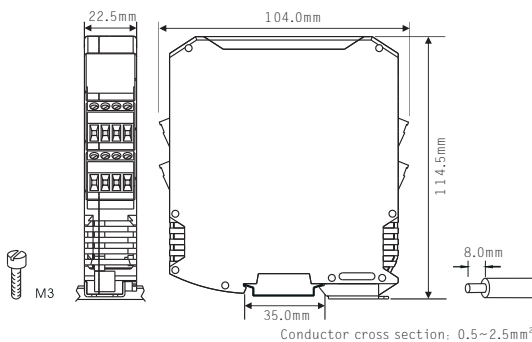
Single-phase Current Monitoring Relay

Features

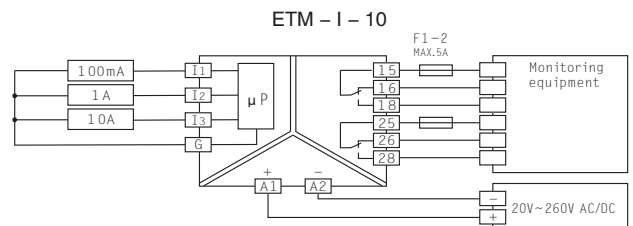
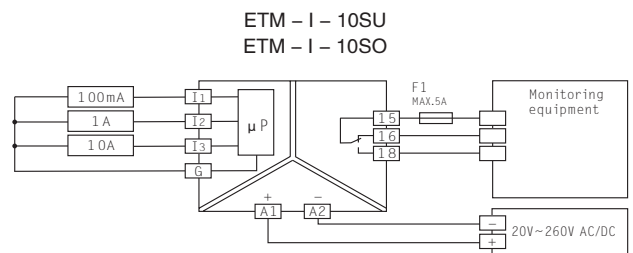
- Single-phase current monitoring
- Parameters adjustable
- Colored LED indication

	ETM-I-10SU Undercurrent monitoring	ETM-I-10SO Overcurrent monitoring	ETM-I-10 Undercurrent monitoring Overcurrent monitoring Window function
Input			
Input current (In)	0mA ~ 100mA/1A/10A AC/DC	0mA ~ 100mA/1A/10A AC/DC	0mA ~ 100mA/1A/10A AC/DC
Max. input current (Imax)	800mA/3A/12A AC/DC	800mA/3A/12A AC/DC	800mA/3A/12A AC/DC
Input resistance	470mΩ/47mΩ/5mΩ	470mΩ/47mΩ/5mΩ	470mΩ/47mΩ/5mΩ
Output			
Contact type	1 floating SPDT	1 floating SPDT	2 floating SPDT contacts
Nominal switching capacity	3A/250V AC	3A/250V AC	3A/250V AC
Expected life, electrical	2 × 10 ⁵ cycles	2 × 10 ⁵ cycles	2 × 10 ⁵ cycles
Expected life, mechanical	1 × 10 ⁷ cycles	1 × 10 ⁷ cycles	1 × 10 ⁷ cycles
Output fuse (fast-blow)	5A	5A	5A
General data			
Supply voltage	20V ~ 260V AC/DC	20V ~ 260V AC/DC	20V ~ 260V AC/DC
Nominal power consumption	4VA(1.5W)	4VA(1.5W)	4VA(1.5W)
Frequency range	48Hz ~ 400Hz	48Hz ~ 400Hz	48Hz ~ 400Hz
Min. setting range (of In)	5% ~ 95%	5% ~ 95%	5% ~ 95%
Max. setting range (of In)	10% ~ 100%	10% ~ 100%	10% ~ 100%
Response delay	0.2s ~ 10s	0.2s ~ 10s	0.1s ~ 10s
Start delay	0.2s	0.2s	0s ~ 10s
Recovery time	500ms	500ms	500ms
Basic accuracy	≤ 5% F.S.	≤ 5% F.S.	≤ 5% F.S.
Setting accuracy	≤ 5% F.S.	≤ 5% F.S.	≤ 5% F.S.
Repeat accuracy	≤ 2% F.S.	≤ 2% F.S.	≤ 2% F.S.
Temperature coefficient	≤ 0.1%/°C	≤ 0.1%/°C	≤ 0.1%/°C
Operation temperature range	-25°C ~ +60°C	-25°C ~ +60°C	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C	-40°C ~ +80°C	-40°C ~ +80°C
Rel. humidity	15% ~ 90%	15% ~ 90%	15% ~ 90%
Pollution degree	3	3	3
EMC standards	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm × 104.0mm × 22.5mm	114.5mm × 104.0mm × 22.5mm	114.5mm × 104.0mm × 22.5mm
Insulation coordination			
Standards	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output~Power)	2500V AC, 1min	2500V AC, 1min	2500V AC, 1min
Impulse withstand voltage	4000V	4000V	4000V
Insulation resistance	100MΩ	100MΩ	100MΩ
Degree of protection	IP20	IP20	IP20

Dimensions



Connection



Phase Sequence Monitoring Relay

Features

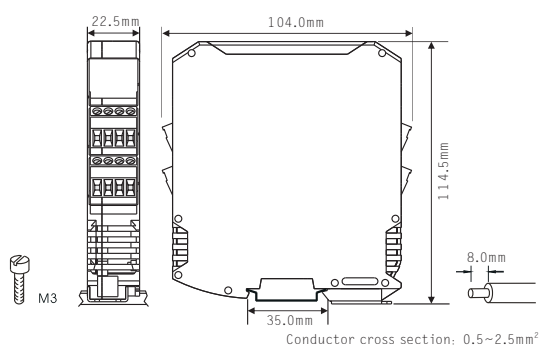
- Phase sequence monitoring
- Powered by input voltage
- Colored LED indication

ETM - PH - 400

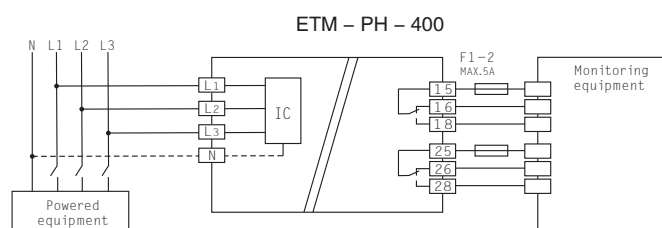
Phase sequence, Phase failure
Asymmetry monitoring

Input	
Input voltage (Un)	L-L:0V~400V AC L-N:0V~230V AC
Max. input voltage (Umax)	L-L:460V AC L-N:265V AC
Input resistance	1MΩ
Output	
Contact type	2 floating SPDT contacts
Nominal switching capacity	3A/250V AC
Expected life, electrical	2 × 10 ⁵ cycles
Expected life, mechanical	1 × 10 ⁷ cycles
Output fuse (fast-blow)	5A
General data	
Supply voltage	L-N:0V~230V AC L-L:0V~400V AC
Nominal power consumption	9VA
Frequency range	48Hz ~ 65Hz
Response delay	≤500ms(fixed setting)
Start delay	≤350ms(fixed setting)
Asymmetry	≤30%(fixed)
Recovery time	≤100ms
Operation temperature range	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C
Rel. humidity	15% ~ 90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm × 104.0mm × 22.5mm
Insulation coordination	
Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100MΩ
Degree of protection	IP20

Dimensions



Connection



Power Factor Monitoring Relay

Features

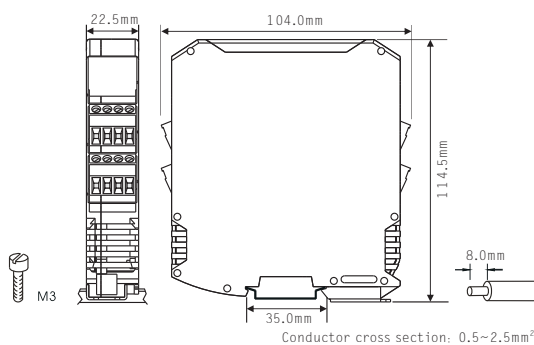
- Power factor monitoring
- Parameters adjustable
- Colored LED indication

ETM – PF – 400

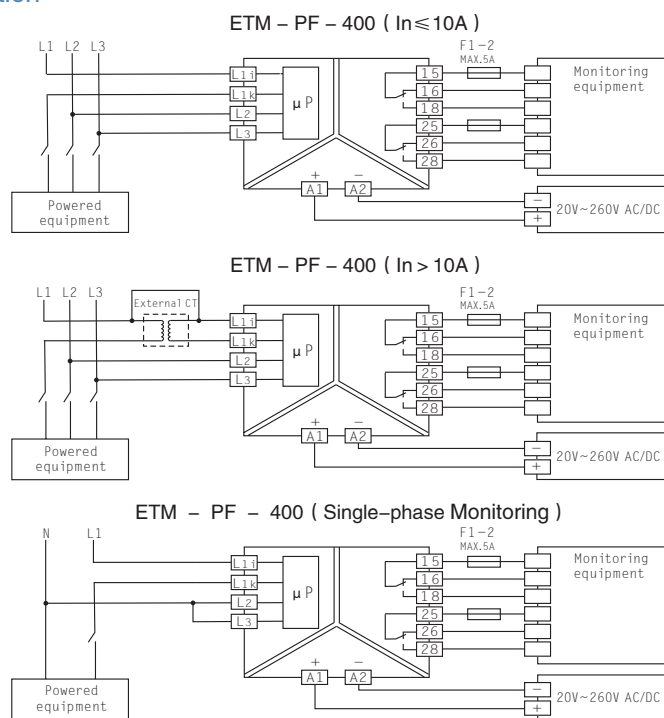
Underload/Overload monitoring
Window function

Input	
Input voltage (Un)	Single-phase 40V~415V AC Three-phase L-L:40V~415V AC L-N:23V~240V AC
Max. input voltage (Umax)	Three-phase L-L:500V AC L-N:289V AC
Input resistance	1M Ω
Input current	0.5A~10A AC
Output	
Contact type	2 floating SPDT contacts
Nominal switching capacity	3A/250V AC
Expected life, electrical	2×10^7 cycles
Expected life, mechanical	1×10^7 cycles
Output fuse (fast-blow)	5A
General data	
Supply voltage	20V~260V AC/DC
Nominal power consumption	4VA(1.5W)
Frequency range	48Hz~400Hz
Min. setting range of $\cos\phi$	0.1~0.99
Max. setting range of $\cos\phi$	0.2~1.0
Response delay	0.1s~40s
Start delay	1s~100s
Recovery time	500ms
Basic accuracy	$\leq 5\%$ F.S.($\cos\phi=0.8$)
Setting accuracy	$\leq 5\%$ F.S.($\cos\phi=0.8$)
Repeat accuracy	$\leq 1.8\%$ F.S.
Temperature coefficient	$\leq 0.1\%/^{\circ}\text{C}$
Operation temperature range	$-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$
Storage temperature range	$-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Rel. humidity	15%~90%
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm \times 104.0mm \times 22.5mm
Insulation coordination	
Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output~Power)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100M Ω
Degree of protection	IP20

Dimensions



Connection



Rotational Speed Monitoring Relay

Features

- Frequency input up to 100kHz
- Current, voltage and relay output
- Colored LED indication

Input

Input sources
Frequency range
NAMUR sensor, switch
Frequency pulse
PNP/NPN transistor outputs
Pulse length

Output

Contact type
Nominal switching capacity
Expected life, electrical
Expected life, mechanical
Output fuse (fast-blow)

Output

Output current
Load (Current output)
Output voltage
Load (Voltage output)

General data

Supply voltage
Nominal power consumption
Basic accuracy
Temperature coefficient
Operation temperature range
Storage temperature range
Rel. humidity
Pollution degree
EMC standards
Dimensions

Insulation coordination

Standards
Insulation voltage (Input~Output, Power)
Impulse withstand voltage
Insulation resistance
Degree of protection

ETM - F - 100K

Underspeed/Overspeed monitoring
Window function

Dry contact, proximity switch, PNP/NPN transistor
0.1Hz ~ 100kHz
Voltage ≈ 8.2V, Short-circuit current ≤ 8.2mA
High level: 3V ~ 30V, Low level: 0V ~ 1.5V
Voltage ≈ 14V, Current ≤ 20mA
≥ 2us

2 floating SPDT contacts
3A/250V AC
1 × 10 ⁵ cycles
2 × 10 ⁷ cycles
5A

4 ~ 20mA/0 ~ 20mA
≤ 400Ω
1 ~ 5V/0 ~ 5V
≥ 300kΩ

20V ~ 35V DC
2.4W(100mA, 24V)
≤ 0.1% F.S.
≤ 0.01%/°C
-25°C ~ +60°C
-40°C ~ +80°C
15% ~ 90%
3
GB/T 18268.1 (IEC 61326-1)
107.5mm × 75.0mm × 45.0mm

GB4793.1 (IEC 61010-1)
2500V AC, 1min
4000V
100MΩ
IP20

ETM - F - 100KS

Underspeed/Overspeed monitoring
Window function

Dry contact, proximity switch, PNP/NPN transistor
0.1Hz ~ 100kHz
Voltage ≈ 8.2V, Short-circuit current ≤ 8.2mA
High level: 3V ~ 30V, Low level: 0V ~ 1.5V
Voltage ≈ 14V, Current ≤ 20mA
≥ 2us

1 floating SPDT
3A/250V AC
1 × 10 ⁵ cycles
2 × 10 ⁷ cycles
5A

4 ~ 20mA/0 ~ 20mA
≤ 400Ω
1 ~ 5V/0 ~ 5V
≥ 300kΩ

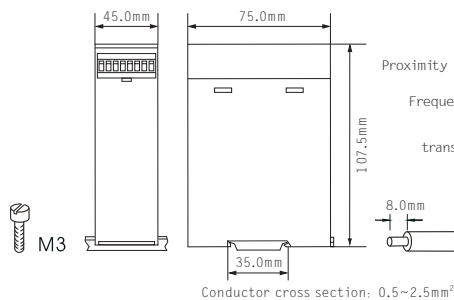
20V ~ 35V DC
2W(80mA, 24V)
≤ 0.1% F.S.
≤ 0.01%/°C
-25°C ~ +60°C
-40°C ~ +80°C
15% ~ 90%
3
GB/T 18268.1 (IEC 61326-1)
114.5mm × 99.0mm × 22.5mm

GB4793.1 (IEC 61010-1)
2500V AC, 1min
4000V
100MΩ
IP20

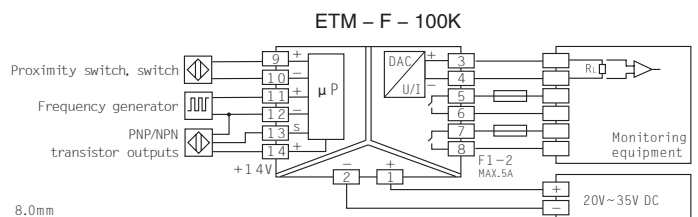
ETM - F - 100K



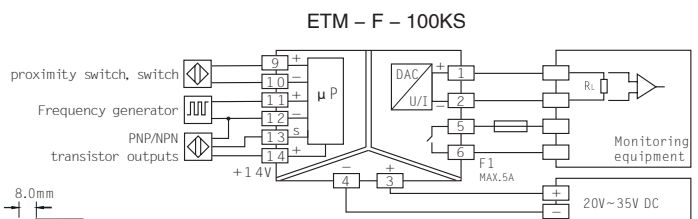
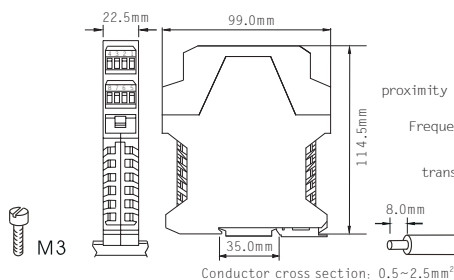
Dimensions



Connection



ETM - F - 100KS



Temperature Monitoring Relay

Features

- Winding temperature monitoring
- Test function with integrated test/reset button
- Colored LED indication

ETM – PTC

Short circuit/Open circuit detection
Overtemperature monitoring

Input

Sensor type	PTC thermistor resistance
Max. input voltage	≤7.5VDC
Total cold resistance	<1.5kΩ
Response value	≥3.6kΩ
Release value	≤1.8kΩ

Output

Contact type	2 floating SPDT contacts
Nominal switching capacity	3A/250V AC
Expected life, electrical	2 × 10 ⁵ cycles
Expected life, mechanical	1 × 10 ⁷ cycles
Output fuse (fast-blow)	5A

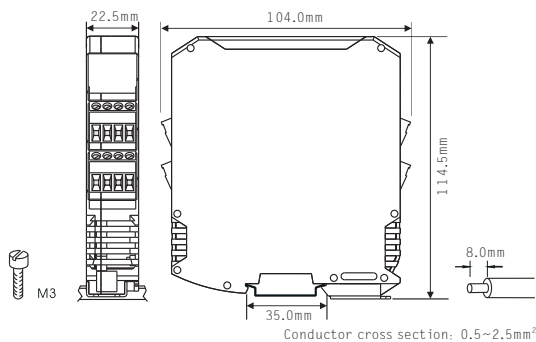
General data

Supply voltage	20V ~ 260V AC/DC
Nominal power consumption	4VA(1.5W)
Frequency range	48Hz ~ 400Hz
Short circuit detection	Yes
Recovery time	<500ms
Basic accuracy	≤10% F.S.
Repeat accuracy	≤2% F.S.
Voltage influence	≤1% F.S.
Temperature coefficient	≤0.1%/°C
Operation temperature range	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C
Rel. humidity	15% ~ 90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm × 104.0mm × 22.5mm

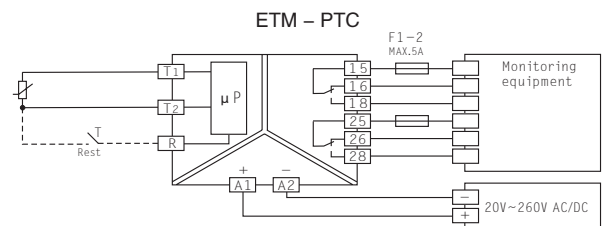
Insulation coordination

Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output~Power)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100MΩ
Degree of protection	IP20

Dimensions



Connection

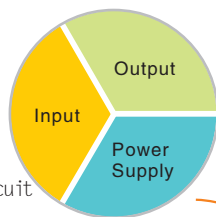


ESC Series—Electrical Measuring Transducer

The ESC series are intelligent transducers with high performance digital signal processors. High accuracy measuring and converting is guaranteed by high precision hall sensors and AD/DC convertors. The modules are suitable for all kinds of I/O cards with variety analog outputs and selectable input range.

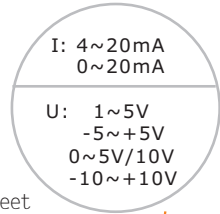
■ **Reliable Isolation**

Input circuit, output circuit and power supply are each galvanically isolated with high isolation voltage.



■ **Multiple Output**

Multiple analog signal outputs are available to meet all kinds of IO cards.



■ **Different Type of Connection**

The input current can be screw connected or through connected, which is depends on the production functions in each case.



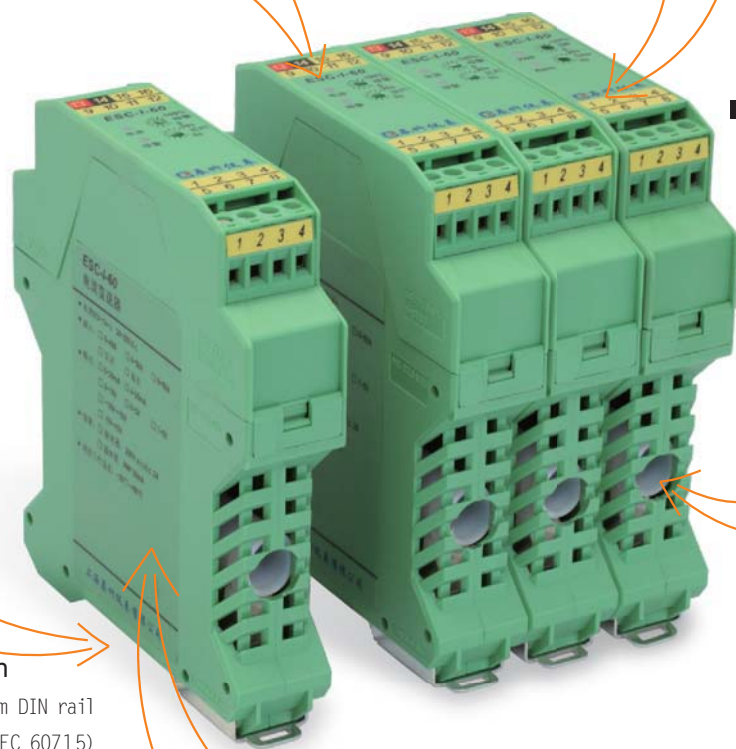
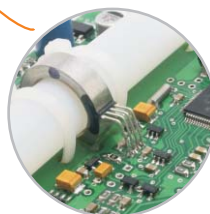
■ **Convenient Installation**

Easy installation with 35mm DIN rail according to GB/T 19334 (IEC 60715)



■ **High Accuracy**

High accuracy measuring and converting can be achieved with precision hall sensors and AD/DA convertors.



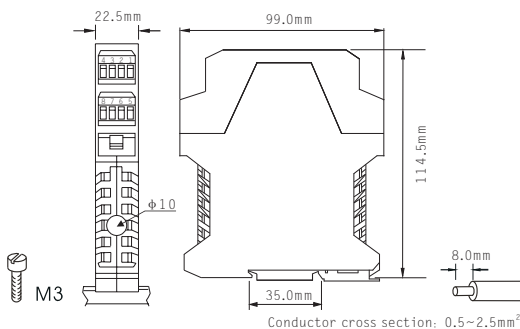
Single-phase Current Transducer

Features

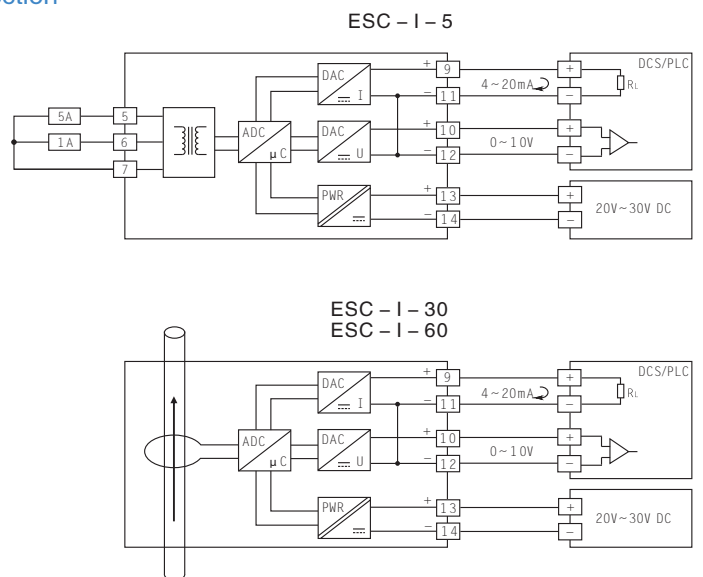
- Variety of analog outputs
- Analog outputs characterize the DC input current direction
- Input range selected via DIP switch

	ESC - I - 5	ESC - I - 30	ESC - I - 60
	Screw connection	Through connection	Through connection
Input			
Input current (In)	0A ~ 1A/5A AC/DC	0A ~ 10A/20A/30A AC/DC	0A ~ 40A/50A/60A AC/DC
Max. input current (Imax)	10A AC/DC	60A AC/DC	100A AC/DC
Input frequency	15Hz ~ 400Hz	15Hz ~ 400Hz	15Hz ~ 400Hz
Output			
Output current	4 ~ 20mA/0 ~ 20mA	4 ~ 20mA/0 ~ 20mA	4 ~ 20mA/0 ~ 20mA
Max. output current	22mA	22mA	22mA
Load (Current output)	≤ 500Ω	≤ 500Ω	≤ 500Ω
Output voltage	0 ~ 5V/0 ~ 10V/± 5V/± 10V	0 ~ 5V/0 ~ 10V/± 5V/± 10V	0 ~ 5V/0 ~ 10V/± 5V/± 10V
Max. output voltage	± 12V	± 12V	± 12V
Load (Voltage output)	≥ 10kΩ	≥ 10kΩ	≥ 10kΩ
General data			
Supply voltage	20V ~ 30V DC	20V ~ 30V DC	20V ~ 30V DC
Nominal power consumption	1.2W(50mA, 24V)	1.2W(50mA, 24V)	1.2W(50mA, 24V)
Step response (10%~90%)	< 330ms	< 330ms	< 330ms
Accuracy	≤ 0.5% F.S.	≤ 0.5% F.S.	≤ 0.5% F.S.
Temperature coefficient	≤ 0.03%/°C	≤ 0.03%/°C	≤ 0.03%/°C
Operation temperature range	-25°C ~ +60°C	-25°C ~ +60°C	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C	-40°C ~ +80°C	-40°C ~ +80°C
Rel. humidity	15% ~ 90%	15% ~ 90%	15% ~ 90%
Pollution degree	3	3	3
EMC standards	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
Dimensions	114.5mm × 99.0mm × 22.5mm	114.5mm × 99.0mm × 22.5mm	114.5mm × 99.0mm × 22.5mm
Insulation coordination			
Standards	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	4000V AC, 1min	4000V AC, 1min	4000V AC, 1min
Impulse withstand voltage	4000V	4000V	4000V
Insulation resistance	100MΩ	100MΩ	100MΩ
Degree of protection	IP20	IP20	IP20

Dimensions



Connection



Single-phase Voltage Transducer

Features

- Output overload protection
- Optional input range
- 3-way isolation

ESC – VDC – 400

Single-phase DC Voltage Transducer

ESC – VAC – 370

Single-phase AC Voltage Transducer

Input

Input voltage (Un)	
Max. input voltage (Umax)	
Input frequency	

Output

Output current	
Max. output current	
Load (Current output)	
Output voltage	
Max. output voltage	
Load (Voltage output)	

General data

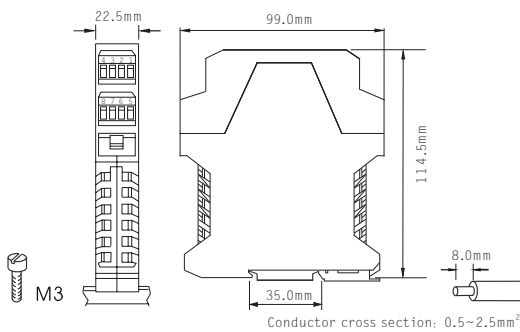
Supply voltage	
Nominal power consumption	
Step response (10%~90%)	
Accuracy	
Temperature coefficient	
Operation temperature range	
Storage temperature range	
Rel. humidity	
Pollution degree	
EMC standards	
Dimensions	

Insulation coordination

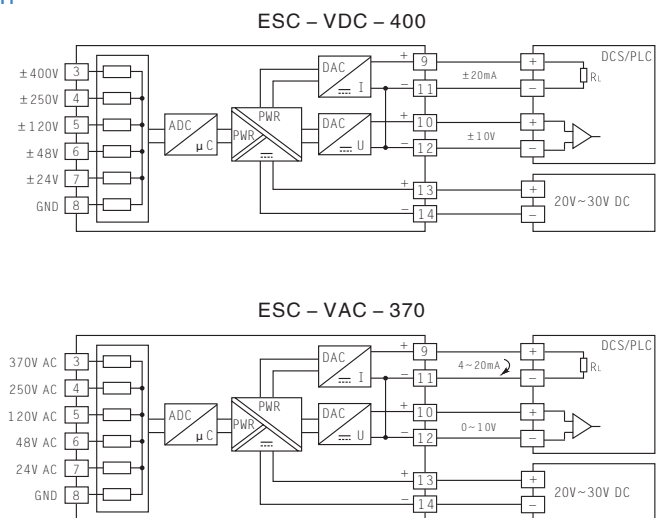
Standards	
Insulation voltage (Input~Output, Power)	
Impulse withstand voltage	
Insulation resistance	
Degree of protection	

	$\pm 24V/48V/120V/250V/400V$ DC	$0V\sim 24V/48V/120V/250V/370V$ AC
	$1.2 \times U_n$	$1.2 \times U_n$
		45Hz ~ 400Hz
	$\pm 20mA$	4 ~ 20mA/0 ~ 20mA
	$\pm 30mA$	30mA
	$\leq 500\Omega$	$\leq 500\Omega$
	$\pm 10V$	0 ~ 10V
	$\pm 15V$	15V
	$\geq 10k\Omega$	$\geq 10k\Omega$
	20V ~ 30V DC	20V ~ 30V DC
	1.2W(50mA, 24V)	1.2W(50mA, 24V)
	< 20ms	< 250ms
	$\leq 0.5\%$ F.S.	$\leq 0.5\%$ F.S.
	$\leq 0.02\%/^{\circ}C$	$\leq 0.02\%/^{\circ}C$
	-25 $^{\circ}C$ ~ +60 $^{\circ}C$	-25 $^{\circ}C$ ~ +60 $^{\circ}C$
	-40 $^{\circ}C$ ~ +80 $^{\circ}C$	-40 $^{\circ}C$ ~ +80 $^{\circ}C$
	15% ~ 90%	15% ~ 90%
	3	3
	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
	114.5mm × 99.0mm × 22.5mm	114.5mm × 99.0mm × 22.5mm
	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
	2500V AC, 1min	2500V AC, 1min
	4000V	4000V
	100M Ω	100M Ω
	IP20	IP20

Dimensions



Connection



Position (Potentiometer) Transducer

Features

- High accuracy position transducer
- Four kinds of reference voltage
- Variety of analog outputs

ESC-R-100K

Position (potentiometer) Transducer

Input

Sensor type
Potentiometer
Reference voltage
Input resistance

Potentiometer
0Ω ~ 100kΩ
≤ 5V
10MΩ

Output

Output current
Max. output current
Load (Current output)
Output voltage
Max. output voltage
Load (Voltage output)

4 ~ 20mA/0 ~ 20mA
22mA
≤ 500Ω
1 ~ 5V/0 ~ 5V/0 ~ 10V
11V
≥ 10kΩ

General data

Supply voltage
Nominal power consumption
Step response (10%~90%)
Accuracy
Temperature coefficient
Operation temperature range
Storage temperature range
Rel. humidity
Pollution degree
EMC standards
Dimensions

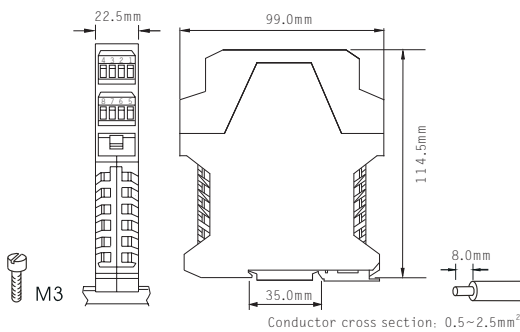
20V ~ 30V DC
1.2W(50mA, 24V)
< 30ms
≤ 0.2% F.S.
≤ 0.02%/°C
-25°C ~ +60°C
-40°C ~ +80°C
15% ~ 90%
3
GB/T 18268.1 (IEC 61326-1)
114.5mm × 99.0mm × 22.5mm

Insulation coordination

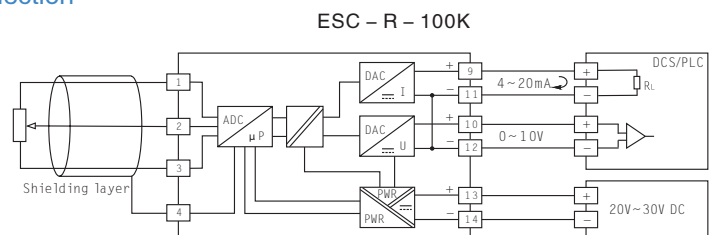
Standards
Insulation voltage (Input~Output, Power)
Impulse withstand voltage
Insulation resistance
Degree of protection

GB4793.1 (IEC 61010-1)
2500V AC, 1min
4000V
100MΩ
IP20

Dimensions



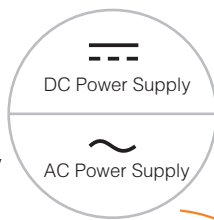
Connection



CZDL Series– Miniature Electrical Measuring Transducer

The CZDL series take precision analog convert circuit to ensure precise and rapid conversion. Magnetic isolation technology makes the input, output and power supply reliable isolated, which ensures the output signal stable and protect the IO cards. These products are suitable for high requirement in high performance with small installation space.

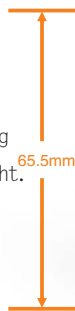
■ **Optional Power Supply**
Optional DC 20~30V or AC 90~260V power supply.



■ **Easy Configuration**
Parameters can be configured via built-in USB port or DIP Switch.



■ **Compact Size**
Space-saving housing only 65.5mm in height.



■ **Convenient Installation**
Easy installation with 35mm DIN rail according to GB/T 19334 (IEC 60715)



■ **Good Heat Dissipation**
Honeycomb vents make the ventilation more effective.



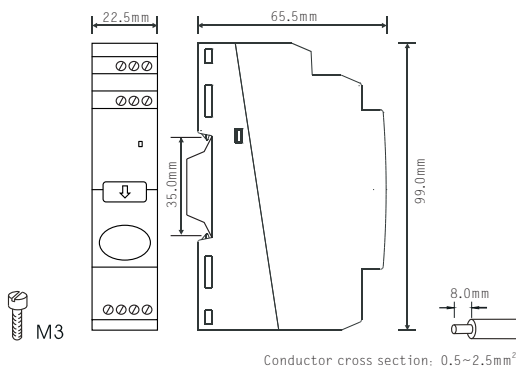
Single-phase Current Transducer

Features

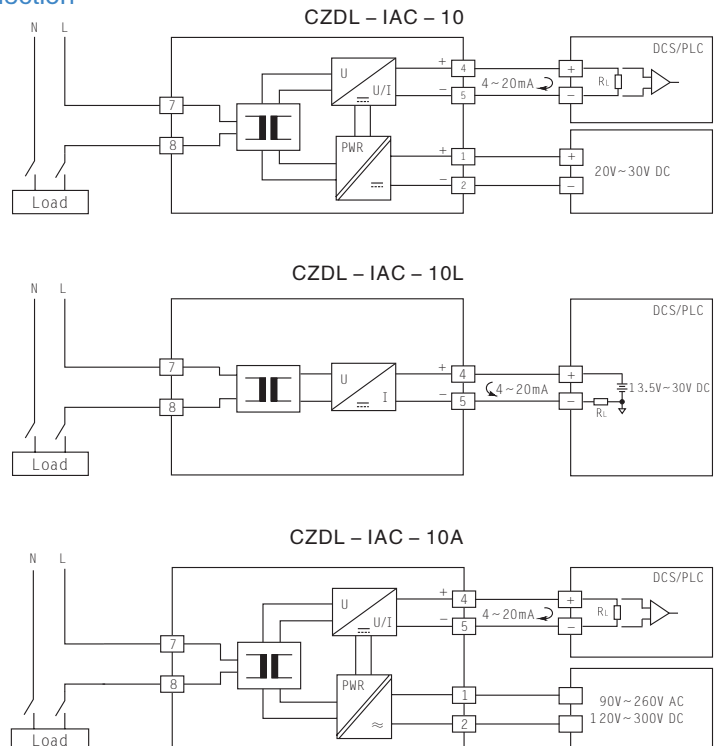
- Compact structure
- Assembled on 35mm DIN rail
- Variety of analog outputs

	CZDL – IAC – 10	CZDL – IAC – 10L	CZDL–IAC–10A
	Single-phase AC Current Transducer	Single-phase AC Current Transducer (Loop Powered)	Single-phase AC Current Transducer
Input			
Input current (In)	0A ~ 1A/5A/10A AC	0A ~ 1A/5A/10A AC	0A ~ 1A/5A/10A AC
Max. input current (Imax)	2A/10A/15A AC	2A/10A/15A AC	2A/10A/15A AC
Input frequency	40Hz ~ 60Hz	40Hz ~ 60Hz	40Hz ~ 60Hz
Output			
Output current	4 ~ 20mA/0 ~ 20mA	4 ~ 20mA	4 ~ 20mA/0 ~ 20mA
Max. output current	40mA	40mA	40mA
Load (Current output)	≤550Ω	(U _i -13.5) /0.02	≤550Ω
Output voltage	1 ~ 5V/0 ~ 5V/0 ~ 10V		1 ~ 5V/0 ~ 5V/0 ~ 10V
Max. output voltage	15V		15V
Load (Voltage output)	≥10kΩ		≥10kΩ
General data			
Supply voltage	20V ~ 30V DC	13.5V ~ 30V DC	120V ~ 300V DC/90V ~ 260V AC
Nominal power consumption	1W(40mA, 24V)	0.5W	3VA(1.2W)
Step response (10%~90%)	< 330ms	< 330ms	< 330ms
Accuracy	≤0.5% F.S.	≤0.5% F.S.	≤0.5% F.S.
Temperature coefficient	≤0.02%/°C	≤0.02%/°C	≤0.02%/°C
Operation temperature range	-25°C ~ +60°C	-25°C ~ +60°C	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C	-40°C ~ +80°C	-40°C ~ +80°C
Rel. humidity	15% ~ 90%	15% ~ 90%	15% ~ 90%
Pollution degree	3	3	3
EMC standards	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm×65.5mm×22.5mm	99.0mm×65.5mm×22.5mm	99.0mm×65.5mm×22.5mm
Insulation coordination			
Standards	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	4000V AC, 1min	4000V AC, 1min	4000V AC, 1min
Impulse withstand voltage	4000V	4000V	4000V
Insulation resistance	100MΩ	100MΩ	100MΩ
Degree of protection	IP20	IP20	IP20

Dimensions



Connection



Single-phase Current Transducer

Features

- Compact structure
- Assembled on 35mm DIN rail
- Variety of analog outputs

Input

Input current (In)	0A~1A/5A/10A DC
Max. input current (Imax)	2A/10A/15A DC
Input resistance	≤50mΩ

Output

Output current	4~20mA/0~20mA
Max. output current	30mA
Load (Current output)	≤550Ω
Output voltage	1~5V/0~5V/0~10V
Max. output voltage	15V
Load (Voltage output)	≥10kΩ

General data

Supply voltage	20V~30V DC
Nominal power consumption	1W(40mA, 24V)
Step response (10%~90%)	<330ms
Accuracy	≤0.5% F.S.
Temperature coefficient	≤0.02%/°C
Operation temperature range	-25°C~+60°C
Storage temperature range	-40°C~+80°C
Rel. humidity	15%~90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm×65.5mm×22.5mm

Insulation coordination

Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100MΩ
Degree of protection	IP20

CZDL – IDC – 10

Single-phase
DC Current transducer

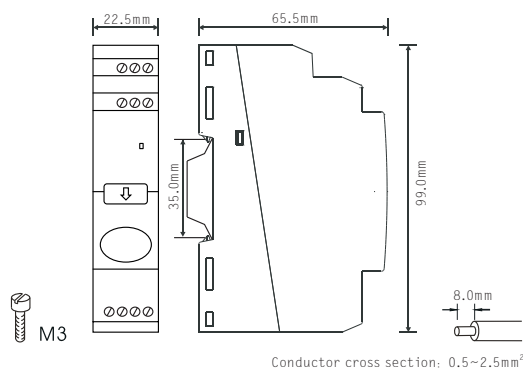
Input current (In)	0A~1A/5A/10A DC
Max. input current (Imax)	2A/10A/15A DC
Input resistance	≤50mΩ
Output current	4~20mA/0~20mA
Max. output current	30mA
Load (Current output)	≤550Ω
Output voltage	1~5V/0~5V/0~10V
Max. output voltage	15V
Load (Voltage output)	≥10kΩ
Supply voltage	20V~30V DC
Nominal power consumption	1W(40mA, 24V)
Step response (10%~90%)	<330ms
Accuracy	≤0.5% F.S.
Temperature coefficient	≤0.02%/°C
Operation temperature range	-25°C~+60°C
Storage temperature range	-40°C~+80°C
Rel. humidity	15%~90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm×65.5mm×22.5mm

CZDL-10A

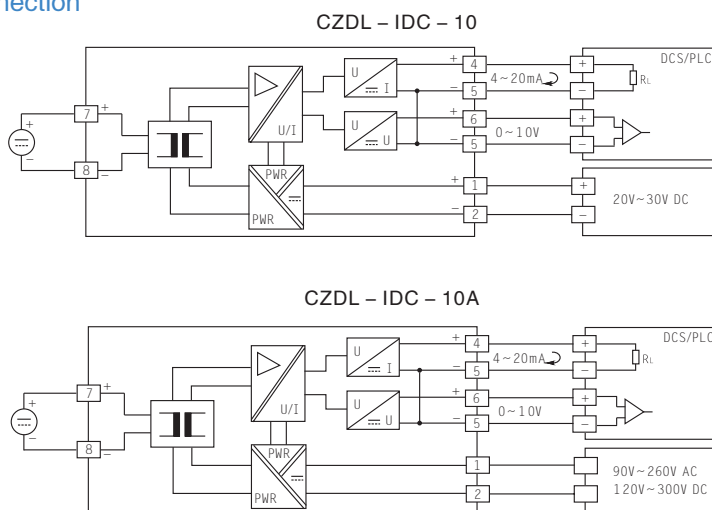
Single-phase
DC Current transducer

Input current (In)	0A~1A/5A/10A DC
Max. input current (Imax)	2A/10A/15A DC
Input resistance	≤50mΩ
Output current	4~20mA/0~20mA
Max. output current	30mA
Load (Current output)	≤550Ω
Output voltage	1~5V/0~5V/0~10V
Max. output voltage	15V
Load (Voltage output)	≥10kΩ
Supply voltage	120V~300V DC/90V~260V AC
Nominal power consumption	3VA(1.2W)
Step response (10%~90%)	<330ms
Accuracy	≤0.5% F.S.
Temperature coefficient	≤0.02%/°C
Operation temperature range	-25°C~+60°C
Storage temperature range	-40°C~+80°C
Rel. humidity	15%~90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm×65.5mm×22.5mm

Dimensions



Connection



Single-phase Voltage Transducer

Features

- Compact structure
- Assembled on 35mm DIN rail
- Variety of analog outputs

Input

Input voltage (Un)	0V~24V/48V/120V/250V/370V AC	0V~24V/48V/120V/250V/370V AC	0V~24V/48V/120V/250V/370V AC
Max. input voltage (Umax)	$1.2 \times U_n$	$1.2 \times U_n$	$1.2 \times U_n$
Input resistance	24kΩ/48kΩ/120kΩ/250kΩ/370kΩ	24kΩ/48kΩ/120kΩ/250kΩ/370kΩ	24kΩ/48kΩ/120kΩ/250kΩ/370kΩ
Input frequency	40Hz~400Hz	40Hz~400Hz	40Hz~400Hz

Output

Output current	4~20mA/0~20mA	4~20mA	4~20mA/0~20mA
Max. output current	30mA	30mA	30mA
Load (Current output)	$\leq 550\Omega$	$(U_i - 13.5)/0.02$	$\leq 550\Omega$
Output voltage	1~5V/0~5V/0~10V		1~5V/0~5V/0~10V
Max. output voltage	15V		15V
Load (Voltage output)	$\geq 10k\Omega$		$\geq 300k\Omega$

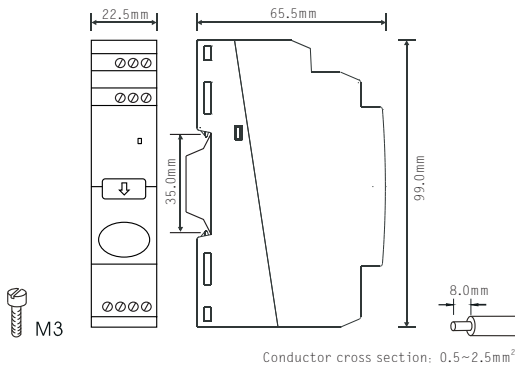
General data

Supply voltage	20V~30V DC	13.5V~30V DC	120V~300V DC/90V~260V AC
Nominal power consumption	1W(40mA, 24V)	0.5W	3VA(1.2W)
Step response (10%~90%)	<330ms	<330ms	<330ms
Accuracy	$\leq 0.5\%$ F.S.	$\leq 0.5\%$ F.S.	$\leq 0.5\%$ F.S.
Temperature coefficient	$\leq 0.02\%/^{\circ}\text{C}$	$\leq 0.02\%/^{\circ}\text{C}$	$\leq 0.02\%/^{\circ}\text{C}$
Operation temperature range	-25°C~+60°C	-25°C~+60°C	-25°C~+60°C
Storage temperature range	-40°C~+80°C	-40°C~+80°C	-40°C~+80°C
Rel. humidity	15%~90%	15%~90%	15%~90%
Pollution degree	3	3	3
EMC standards	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm × 65.5mm × 22.5mm	99.0mm × 65.5mm × 22.5mm	99.0mm × 65.5mm × 22.5mm

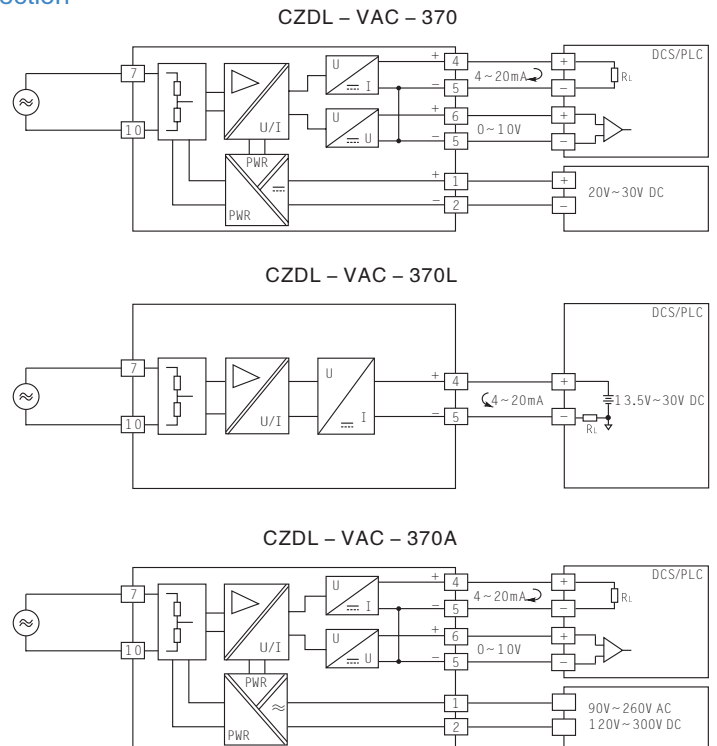
Insulation coordination

Standards	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	2500V AC, 1min	2500V AC, 1min	2500V AC, 1min
Impulse withstand voltage	4000V	4000V	4000V
Insulation resistance	100MΩ	100MΩ	100MΩ
Degree of protection	IP20	IP20	IP20

Dimensions



Connection



Single-phase Voltage Transducer

Features

- Compact structure
- Assembled on 35mm DIN rail
- Variety of analog outputs

Input

Input voltage (Un)	
Max. input current (Umax)	
Input resistance	

Output

Output current	
Max. output current	
Load (Current output)	
Output voltage	
Max. output voltage	
Load (Voltage output)	

General data

Supply voltage	
Nominal power consumption	
Step response (10%~90%)	
Accuracy	
Temperature coefficient	
Operation temperature range	
Storage temperature range	
Rel. humidity	
Pollution degree	
EMC standards	
Dimensions	

Insulation coordination

Standards	
Insulation voltage (Input~Output, Power)	
Impulse withstand voltage	
Insulation resistance	
Degree of protection	

CZDL - VDC - 400

Single-phase
DC Voltage Transducer

Input voltage (Un)	± 24V/48V/120V/250V/400V DC
Max. input current (Umax)	1.2 × Un
Input resistance	24kΩ/48kΩ/120kΩ/250kΩ/400kΩ

Output current	4 ~ 20mA/0 ~ 20mA
Max. output current	30mA
Load (Current output)	≤ 550Ω
Output voltage	1 ~ 5V/0 ~ 5V/0 ~ 10V
Max. output voltage	15V
Load (Voltage output)	≥ 10kΩ

Supply voltage	20V ~ 30V DC
Nominal power consumption	1W(40mA, 24V)
Step response (10%~90%)	< 330ms
Accuracy	≤ 0.5% F.S.
Temperature coefficient	≤ 0.02%/°C
Operation temperature range	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C
Rel. humidity	15% ~ 90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm × 65.5mm × 22.5mm

Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100MΩ
Degree of protection	IP20

CZDL - VDC - 400A

Single-phase
DC Voltage Transducer

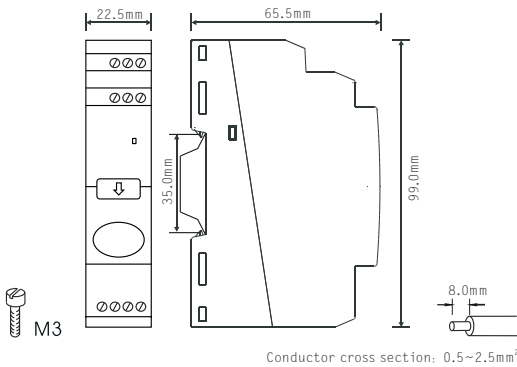
Input voltage (Un)	± 24V/48V/120V/250V/400V DC
Max. input current (Umax)	1.2 × Un
Input resistance	24kΩ/48kΩ/120kΩ/250kΩ/400kΩ

Output current	4 ~ 20mA/0 ~ 20mA
Max. output current	30mA
Load (Current output)	≤ 550Ω
Output voltage	1 ~ 5V/0 ~ 5V/0 ~ 10V
Max. output voltage	15V
Load (Voltage output)	≥ 10kΩ

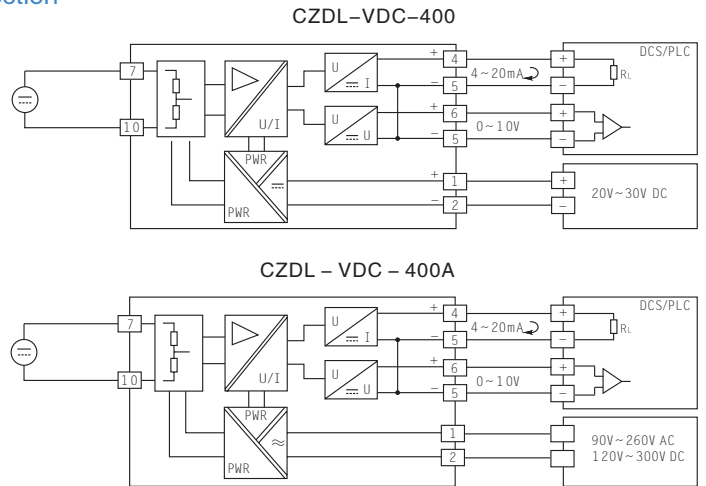
Supply voltage	120V~300V DC/90V ~ 260V AC
Nominal power consumption	3VA(1.2W)
Step response (10%~90%)	< 330ms
Accuracy	≤ 0.5% F.S.
Temperature coefficient	≤ 0.02%/°C
Operation temperature range	-25°C ~ +60°C
Storage temperature range	-40°C ~ +80°C
Rel. humidity	15% ~ 90%
Pollution degree	3
EMC standards	GB/T 18268.1 (IEC 61326-1)
Dimensions	99.0mm × 65.5mm × 22.5mm

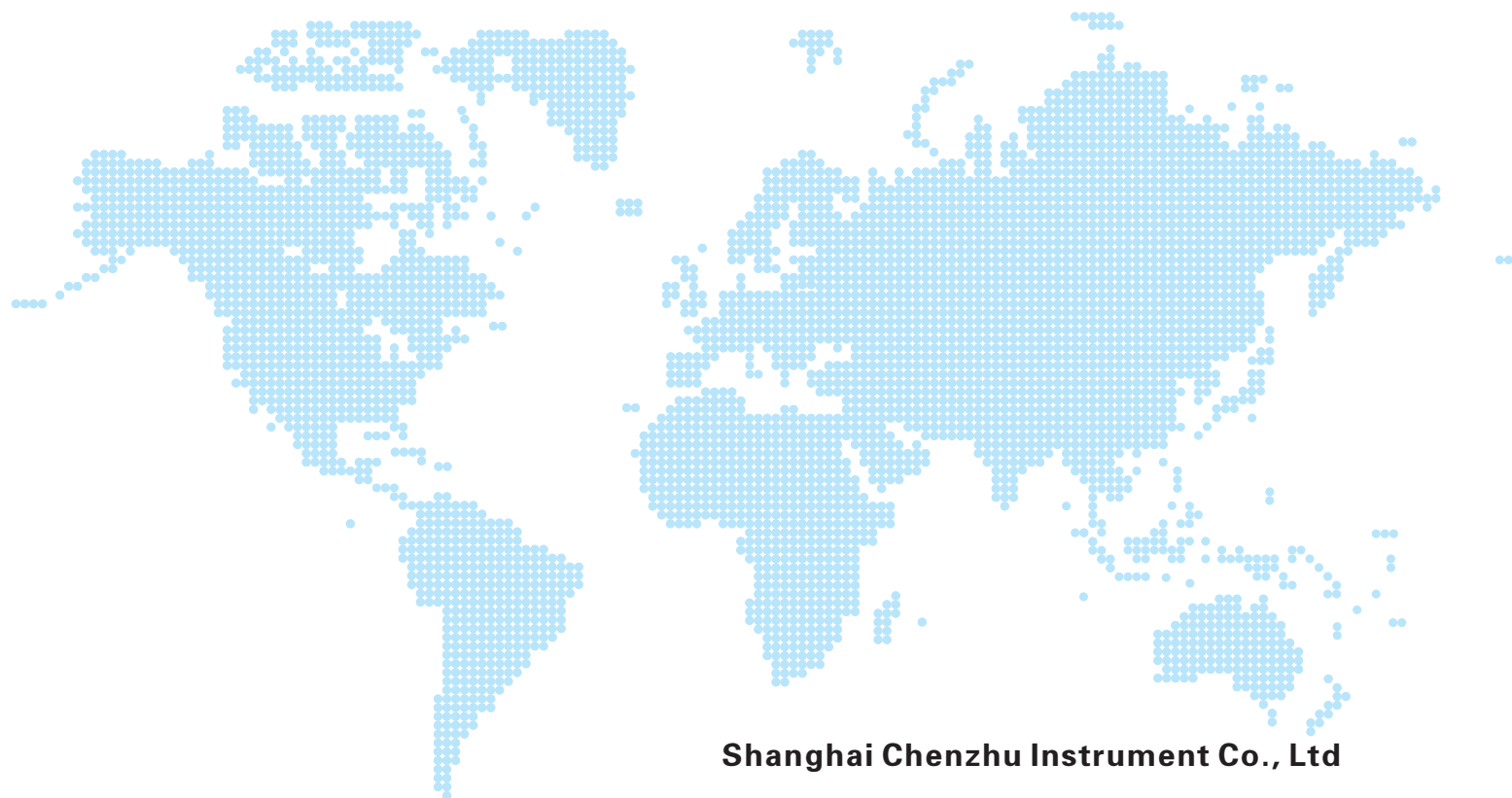
Standards	GB4793.1 (IEC 61010-1)
Insulation voltage (Input~Output, Power)	2500V AC, 1min
Impulse withstand voltage	4000V
Insulation resistance	100MΩ
Degree of protection	IP20

Dimensions



Connection





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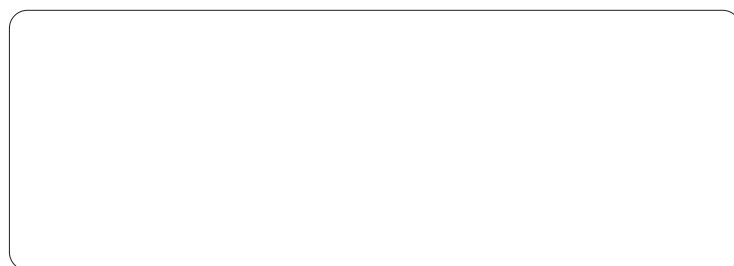
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