

Ziegler

Redefine Innovative Metering

Technical Datasheet

ZAR SCRA

CURRENT PROTECTOR

ZAR SCRA

CURRENT PROTECTOR

ZAR SCRA, is a device designed to trip a circuit breaker/trigger alarm or initiate safety related action whenever fault is detected, for faults like Over Current, Under Current, etc.

Product features

- **True RMS measurement** : The instrument measures distorted waveform up to 15th Harmonic
- **LED indications** : LED indication for Relay-1 and Relay-2 status, Trip indication are displayed on 4 Digit display, Dual color LED for per phase indication green color for, normal condition and Red color for faulty condition
- **Previous fault Storage** : Instrument memorizes the last 15 fault occurred
- **AND function** : User can use ANDing function to set trip on any two fault condition
- **Configuration via USB-based programmable cable** : User can configure the Meter using USB-based **programmable cable**
- **Auto / Manual reset** : In auto mode instrument automatically clears itself. If the device set into manual mode , the device must be manually reset by push button through display if it goes into fault
- **User selectable 3 phase 3W or 4W** : User can on site program the network connection as either 1P2W / 3P4W / 3P3W network using front panel keys
- **Adjustable set point and time delay for Over current, Under current, Current loss, Current Unbalance**
- **Trip or Buzzer mode** : Relay can be used to protect the system or simply to control the buzzer. Trip mode is for protection purpose and Buzz mode is for buzzer control



Fact Sheet

Display	
Type	4 Digit ultra bright LED display and indications
Mounting options	DIN Rail
Dimensions	DIN Rail : 53 x 110 x 60.5 mm
Interface	
Programming interface	Programming can be done using programmable cable or using front panel keys
Relay output	1CO, 2CO, 1CO+1CO
	5A / 250VAC / 30VDC
	Mechanical Endurance : 1×10^7 operations
	Electrical Endurance : NO - 3×10^4 operations NC- 1×10^4 OPS for 1CO+1CO/1CO 1×10^5 OPS for 2CO relay
Conforms Standards	
EMC	IEC 61326-1 : 2012, Table 2
Immunity	IEC 61000-4-3 10V/m min – Level 3
Safety	IEC 61010-1-2010 , Permanently connected use
IP for water & dust	IEC 60529 (IP 20 Front only)
Installation category	300 V CAT III / 600 V CAT II
High Voltage Test	2.2 KV AC, 50Hz for 1 minute between all circuits
Pollution Degree	2
ANSI Numbers	
37	Under current relay
51	Over current relay
46	Current unbalance relay

Technical Specifications

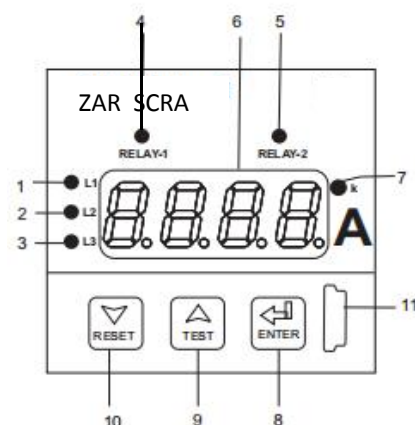
Input Details	
Input Current	
Nominal Input Current (AC RMS)	5 A
Max Continuous Input Current (OL Indication)	145% of CT Secondary
System CT Secondary values	1 A to 5 A programmable on site
System CT Primary values	1A to 999 kA programmable on site
Auxiliary Supply	
Higher Aux	60 V - 300 V AC/DC, Nominal value : 230 V AC/DC 50/60 Hz for AC Aux
Lower Aux	20 - 60 VDC/20- 40VAC, Nominal value : 48 VDC / 24 VAC 50/60 Hz for AC Aux
Aux supply frequency	45 - 65 Hz range
Overload withstand	
Current	20 x for 1 second, repeated 5 times at 5 min
Operating measuring range	
Current Range	5...140% of CT Secondary
Frequency	40...70Hz

VA Burden (approx.)	
Nominal input current burden	< 0.25 VA approx. per channel
Auxiliary Supply burden	< 4 VA approx for AC aux
Accuracy	
Input Current	±0.5% of nominal value
Frequency	±0.2 Hz
Trip, Reset Delays, Power ON	±140 msec or ±5% of Set Delay, whichever is greater
Environmental	
Operating temperature	-10 to +55°C
Storage temperature	-25 to +70°C
Relative humidity	0... 95% non condensing
Shock	15g in 3 planes
Vibration	10... 55 Hz, 0.15mm amplitude
Influence of variations	
Temperature coefficient	0.05%/°C for current
Reference condition for Accuracy	
Reference Condition	23°C +/- 2°C
Input waveform	Sinusoidal (distortion factor 0.005)
Input Frequency	50 or 60 Hz ±2%
Auxiliary supply voltage	230 VAC / DC ±1%
Auxiliary supply frequency	50 or 60 Hz ±1%

Operating Elements

1	L1- LED : Indicates status of I1 . It Lights green when input current is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
2	L2-LED : Indicates status of I2. It Lights green when input current is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
3	L3- LED : Indicates status of I3. It Lights green when input current is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
4/5	Relay-1 and Relay-2 status LED : Indicates status of relay-1 and relay-2 respectively. It lights green for relay in healthy condition and red for relay in trip condition.
6	4 Digit ultra bright 7 seg LED Display
7	K LED : It is used to show value in kA.
8	Enter Key : Confirms changes of parameter setting. When on the measurement screen, holding for 3 sec enters in setup menu
9	Test Key : Increments setting value, move upwards in the menu or change parameter. It is also used to test operation of relay. Continuous holding of test key changes relay position and when release it resets the relay position (Only in healthy condition)
10	Reset Key : Decrements setting value, move downwards in the menu or change parameter. It is also used to reset relay when manual reset mode is selected
11	Configuration via USB-based programming cable

See in below figure



Inverse Curve Formula

To Calculate Relay Operating Time when IDMT is enabled, use the following formula

$$T = \frac{C}{\left(\frac{I}{I_s}\right)^\alpha - 1} \times TMS$$

Where,

T = Time in Sec (Operating time of relay).

I = Input Current.

I_s = Secondary Current.

TMS = Time Multiplier Setting.

C = Constant for relay characteristics.

α = Constant representing inverse time type

(α > 0)

Relay Characteristics type	α	C
Standard Inverse	0.02	0.14
Very Inverse	1	13.5
Extremely Inverse	2	80
Long Inverse	1	120

Hysteresis Calculation Method

I . Example: -

For "OC" (Over Current)

CT Secondary = 5 A .

Trip point = 101% of CT Secondary = 5.05 A

Hysteresis = 2% of CT Secondary = 0.1 A

Relay Reset point = Trip point - Hysteresis

= 5.05 - 0.1

= 4.95 A

II . Example: -

For "C.un" (Current Unbalance)

CT Secondary = 5 A

Trip point = 10% of CT Secondary = 0.5 A

Hysteresis = 2% of CT Secondary = 0.1 A

Relay Reset point = Trip point - Hysteresis

= 0.5 - 0.1

= 0.4 A

Parameter Setting

Parameters	ZAR SCRA
Trip setting for Current loss	5 - 99% 1 - 15%*
Trip setting for Current Unbalance	2 - 20%
Trip setting for over current (IDMT Disabled)	30 - 140%
Trip setting for over current (IDMT Enabled)	30 - 125%
Trip setting for under current	10 - 99%
Setting for Differential / hysteresis	1 - 15%*
Time Multiplier Setting (TMS)	0.1 - 1
Individual Faults can be deactivated as per system requirement	YES
Relay control mode	De-energize / Energize
Reset Delay	0.2 - 30s
Programmable Delay for over current	0 - 30s
Programmable Delay for under current	0 - 30s
Programmable Delay for Current loss	0 - 30s
Programmable Delay for current unbalance	0 - 30s
Power ON Delay	0.5 - 30s
CT primary current	1 A - 999 kA
Rated current	1A to 5A
Reset option	Auto/Manual

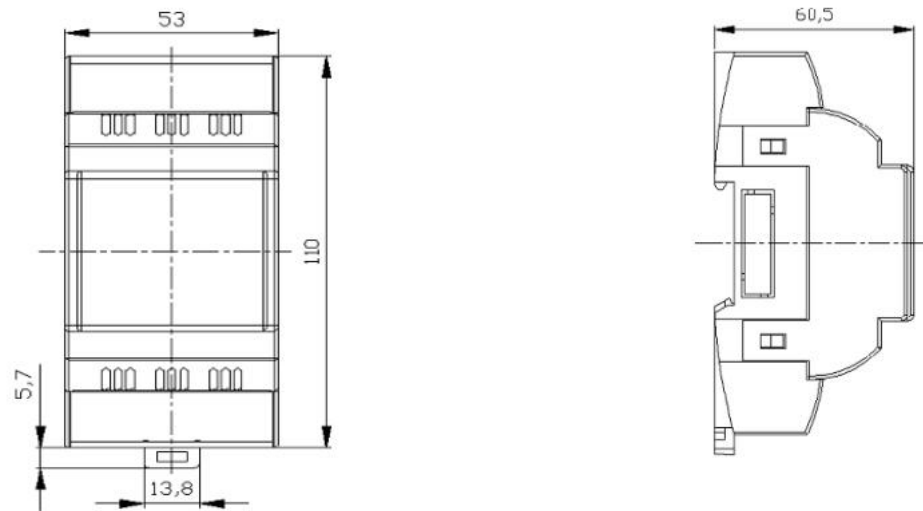
Note * Differential setting range for current unbalance is limited as per its setting of trip point.

ZAR SCRA

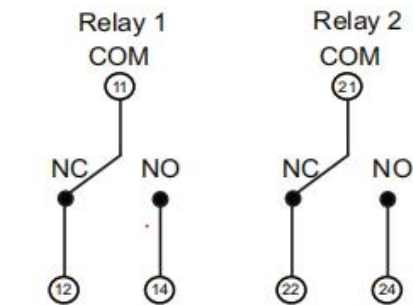
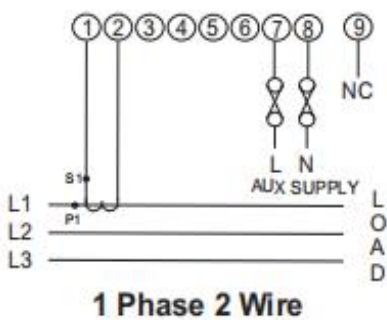
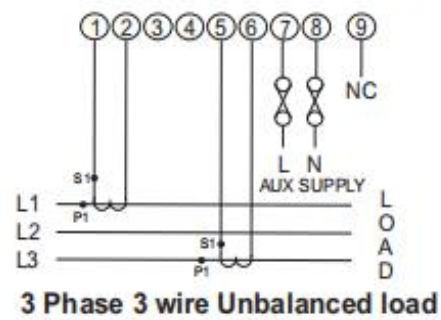
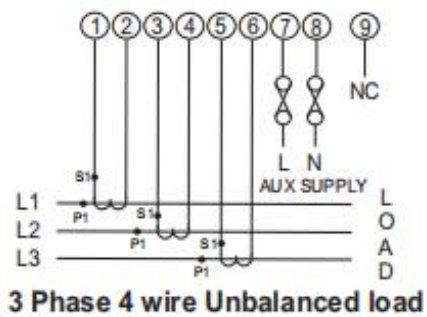
CURRENT PROTECTOR

Dimensions :

DIN RAIL MOUNTING:



Electrical Connections :

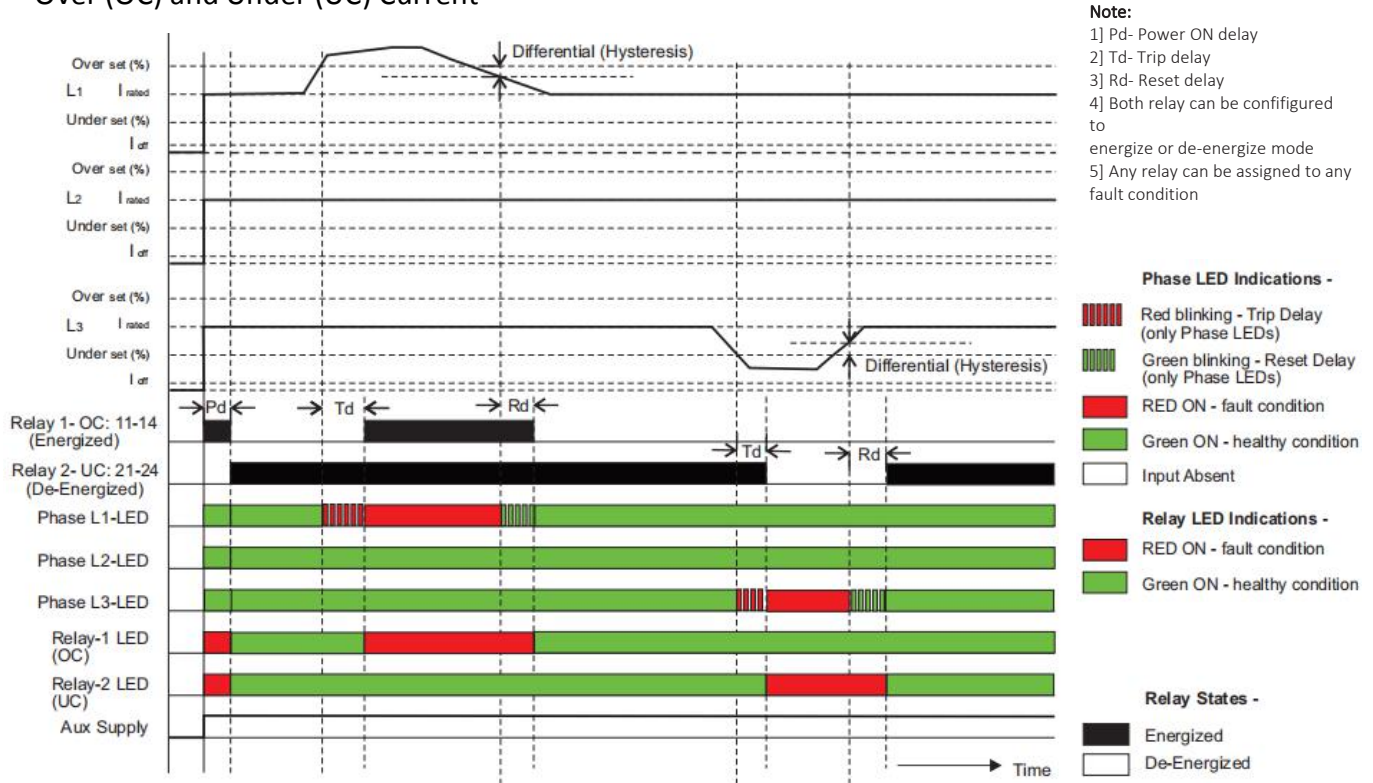


Note- Relay Contacts are shown in power off condition

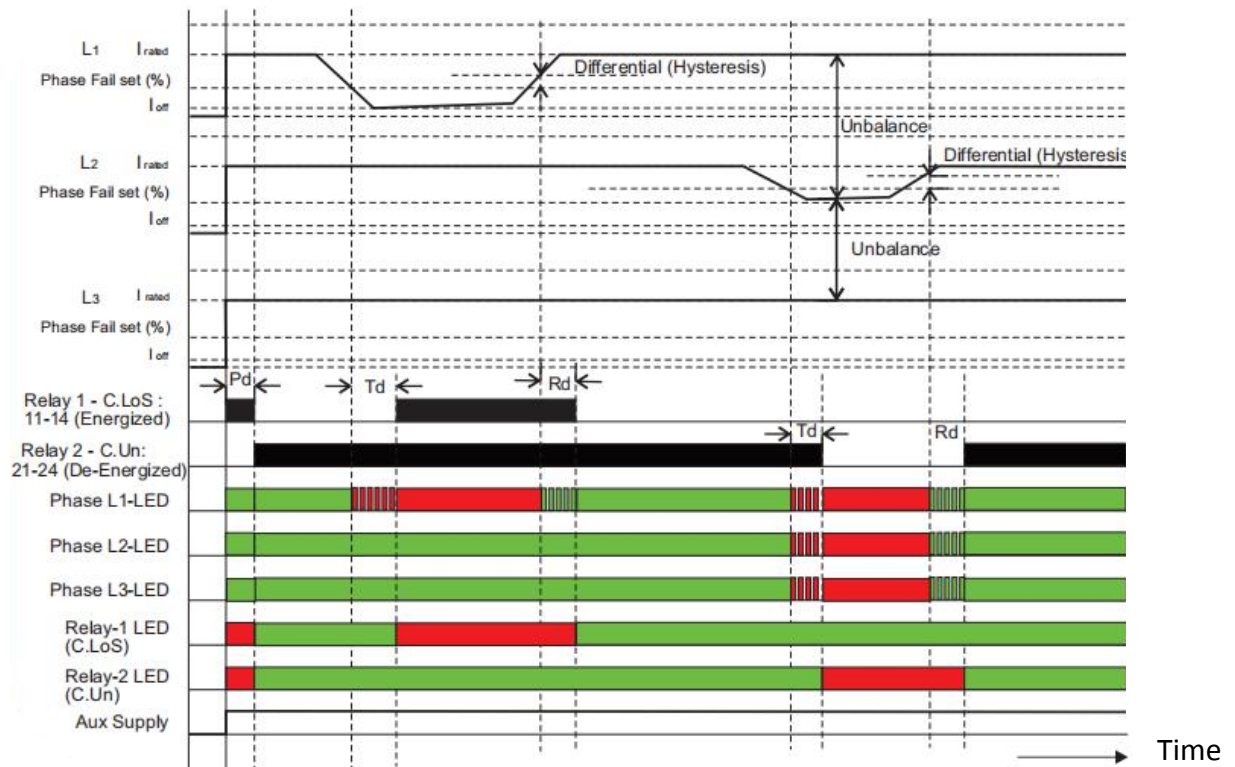
Relay Contacts

Definite Time Characteristics

Over (OC) and Under (UC) Current



Current Loss (C.LoS) and Current Unbalance



ZAR SCRA

CURRENT PROTECTOR

Ordering Information

Model Name	(✓)
System Type	
Single Phase 1	
Three Phase (On-site programmable to 1P2W / 3P4W / 3P3W)	
Auxiliary supply voltage	
60 - 300V AC DC	
20 - 60V DC / 20 - 40V AC	
Relay Type	
1 CO + 1CO	
1 CO	
2 CO	

Ordering Example

1. ZAR SCRA : Current Protection Relay, Single Phase, Relay contact 1CO+1CO, External Aux 60-300 V AC/DC.

Ziegler

Redefine Innovative Metering

Ziegler Instrumentation UK Ltd.

Central Buildings, Woodland close old woods Trading Estate, Torquay Devon, TQ2 7BB, United Kingdom
+441803 616 800 | info@ziegler-instrument.com | ziegler-instrument.com

Ziegler

Redefine Innovative Metering

Technical Datasheet

ZAR SCR V

VOLTAGE PROTECTOR

ZAR SCR V

VOLTAGE PROTECTOR

ZAR SCR V, is a device designed to trip a circuit breaker/trigger alarm or initiate safety related action whenever fault is detected, for faults like Over Voltage , Under Voltage, etc.

Product features

- **True RMS measurement** : The instrument measures distorted waveform up to 15th Harmonic
- Trip relay with display with accuracy class 0.5
- **LED indications** : LED indication for Relay-1 and Relay-2 status, Trip indication are displayed on 4 Digit display, Dual color LED for per phase indication green color for, normal condition and Red color for faulty condition
- **Previous fault Storage** : Instrument memorizes the last 15 fault occurred
- **AND function** : User can use ANDing function to set trip on any two fault condition
- **Configuration via USB-based programmable cable** : User can configure the Meter using USB-based **programmable cable**
- **Auto / Manual reset** : In auto mode instrument automatically clears itself. If the device set into manual mode , the device must be manually reset by push button through display if it goes into fault
- **User selectable 3 phase 3W or 4W** : User can on site program the network connection as either 1P2W / 3P4W / 3P3W network using front panel keys
- **Adjustable set point and time delay for Over voltage, Under voltage, phase failure**
- **Trip or Buzzer mode** : Relay can be used to protect the system or simply to control the buzzer. Trip mode is for protection purpose and Buzz mode is for buzzer control



ZAR SCR V

VOLTAGE PROTECTOR

Fact Sheet

Display	
Type	4 Digit ultra bright LED display and indications
Mounting options	DIN Rail
Dimensions	DIN Rail : 53 x 110 x 60.5 mm
Interface	
Programming interface	Programming can be done using programmable cable or using front panel keys
Relay output	1CO, 2CO, 1CO+1CO
	5A / 250VAC / 30VDC
	Mechanical Endurance : 1×10^7 operations
	Electrical Endurance : NO - 3×10^4 operations NC- 1×10^4 Ops for 1CO+1CO/1CO 1×10^5 Ops for 2CO relay
Conforms Standards	
EMC	IEC 61326-1 : 2012, Table 2
Immunity	IEC 61000-4-3 10V/m min – Level 3
Safety	IEC 61010-1-2010 , Permanently connected use
IP for water & dust	IEC 60529 (IP 20 Front only)
Installation category	300 V CAT III / 600 V CAT II
High Voltage Test	2.2 KV AC, 50Hz for 1 minute between all circuits
Pollution Degree	2
ANSI Numbers	
27	Under voltage relay
47	Phase sequence
59	Over voltage relay

Technical Specifications

Input Details	
Input Voltage	
Nominal Input Voltage (AC RMS)	600VL-L (346.42VL-N)
Max Continuous Input Voltage (OL Indication)	127% of PT Secondary
System PT Secondary values	100VL-L to 600 VL-L programmable on-site
System PT Primary values	100VL-L to 1200 kVL-L programmable on-site
Auxiliary Supply	
Higher Aux	60 V - 300 V AC/DC, Nominal value : 230 V AC/DC 50/60 Hz for AC Aux
Lower Aux	20 - 60 VDC/20- 40VAC, Nominal value : 48 VDC / 24 VAC 50/60 Hz for AC Aux
Aux supply frequency	45 - 65 Hz range
Overload withstand	
Voltage	2 x rated value for 1 second, repeated 10 times at 10 seconds
Operating measuring range	
Voltage Range	20...125% of PT Secondary
Frequency	40...70Hz

ZAR SCR V

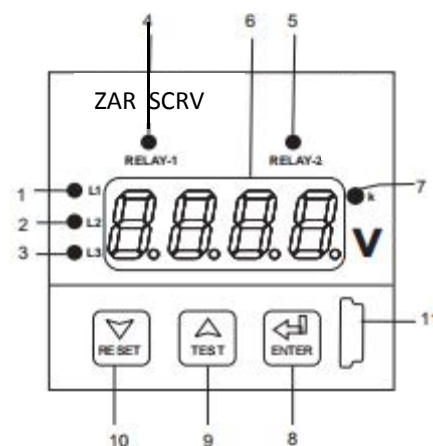
VOLTAGE PROTECTOR

VA Burden (approx.)	
Nominal input voltage burden	< 0.6 VA approx. per channel
Auxiliary Supply burden	< 4 VA approx for AC aux
Accuracy	
Input Voltage	±0.5% of nominal value
Frequency	±0.2 Hz
Trip, Reset Delays, Power ON	±140 msec or ±5% of Set Delay, whichever is greater
Environmental	
Operating temperature	-10 to +55°C
Storage temperature	-25 to +70°C
Relative humidity	0... 90% non condensing
Shock	15g in 3 planes
Vibration	10... 55 Hz, 0.15mm amplitude
Influence of variations	
Temperature coefficient	0.025%/°C for Voltage
Reference condition for Accuracy	
Reference Condition	23°C +/- 2°C
Input waveform	Sinusoidal (distortion factor 0.005)
Input Frequency	50 or 60 Hz ±2%
Auxiliary supply voltage	Nominal value ±1%
Auxiliary supply frequency	Nominal value ±1%

Operating Elements

1	L1- LED : Indicates status of V1 (in 3P4W) and V1-2 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
2	L2-LED : Indicates status of V2 (in 3P4W) and V2-3 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay
3	L3- LED : Indicates status of V3 (in 3P4W) and V3-1 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
4/5	Relay-1 and Relay-2 status LED : Indicates status of relay-1and relay-2 respectively. It lights green for relay in healthy condition and red for relay in trip condition
6	4 Digit ultra bright 7 seg LED Display
7	K LED : It is used to show value in kV
8	Enter Key : Confirms changes of parameter setting. When on the measurement screen, holding for 3 sec enters in setup menu
9	Test Key : Increments setting value, move upwards in the menu or change parameter. It is also used to test operation of relay. Continuous holding of test key changes relay position and when release it resets the relay position (Only in healthy condition)
10	Reset Key : Decrements setting value, move downwards in the menu or change parameter. It is also used to reset relay when manual reset mode is selected
11	Configuration via USB-baed programming cable

See in below figure



ZAR SCR V

VOLTAGE PROTECTOR

Hysteresis Calculation Method

I .Example: -

For "OV" (Over Voltage)

PT Secondary = 100 VL-L.

Trip point = 105% of PT Secondary = 105 VL-L

Hysteresis = 2% of PT Secondary = 2 VL-L

Relay Reset point = Trip point - Hysteresis

= 105 - 2

= 103 VL-L.

Parameter Setting

Parameters	ZAR SCR V
Trip setting for Phase failure	20 - 85%
Trip setting for over voltage	101 - 125%
Trip setting for under voltage	70 - 99%
Setting for Differential / hysteresis	1 - 15%*
Individual Faults can be deactivated as per system requirement	YES
Relay control mode	De-energize / Energize
Reset Delay	0.2 - 30s
Programmable Delay for over voltage	0 - 30s
Programmable Delay for under voltage	0 - 30s
Programmable Delay for Phase failure	0 - 30s
Power ON Delay	0.5 - 30s
PT Primary	100 - 1200KV L-L
Reset option	Auto/Manual

Note : *Regenerate voltage may get produced in open phase due to blown fuse for some loads. In such a case, set the trip point for

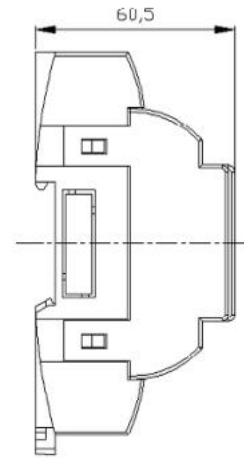
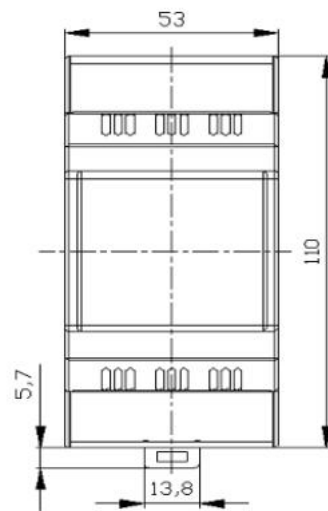
Phase Failure (20 - 85%) as per requirement considering the possibility of a higher regenerated voltage

ZAR SCR V

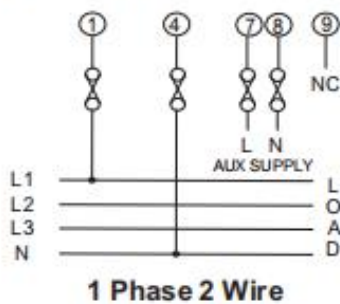
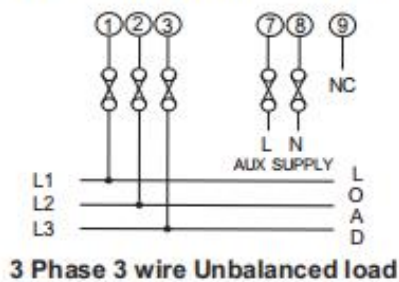
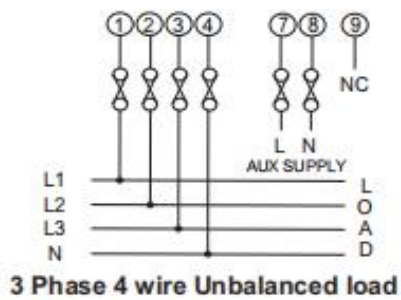
VOLTAGE PROTECTOR

Dimensions :

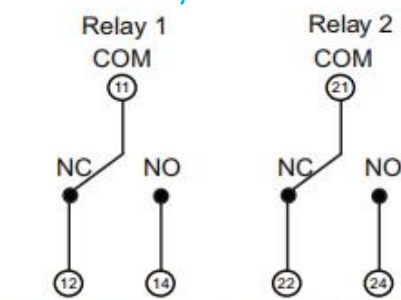
DIN RAIL MOUNTING:



Electrical Connections :



Relay Contacts



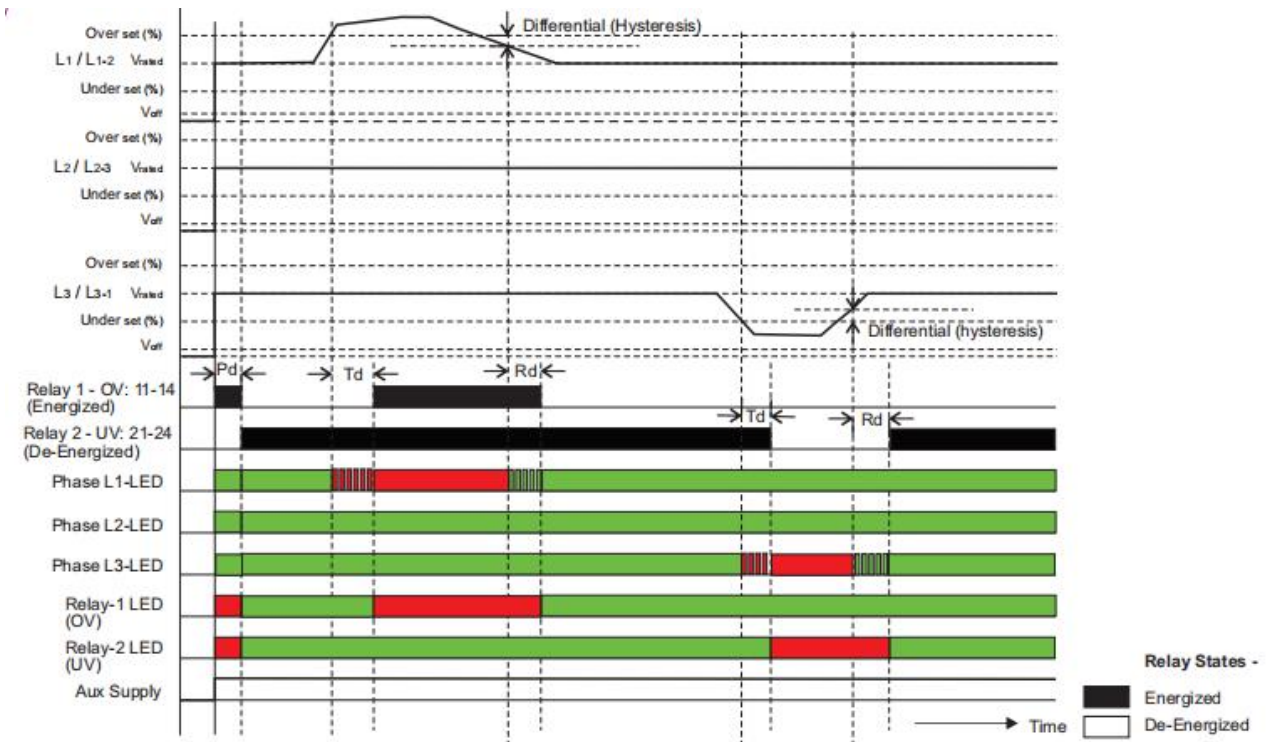
Note- Relay Contacts are shown in power off condition

ZAR SCR V

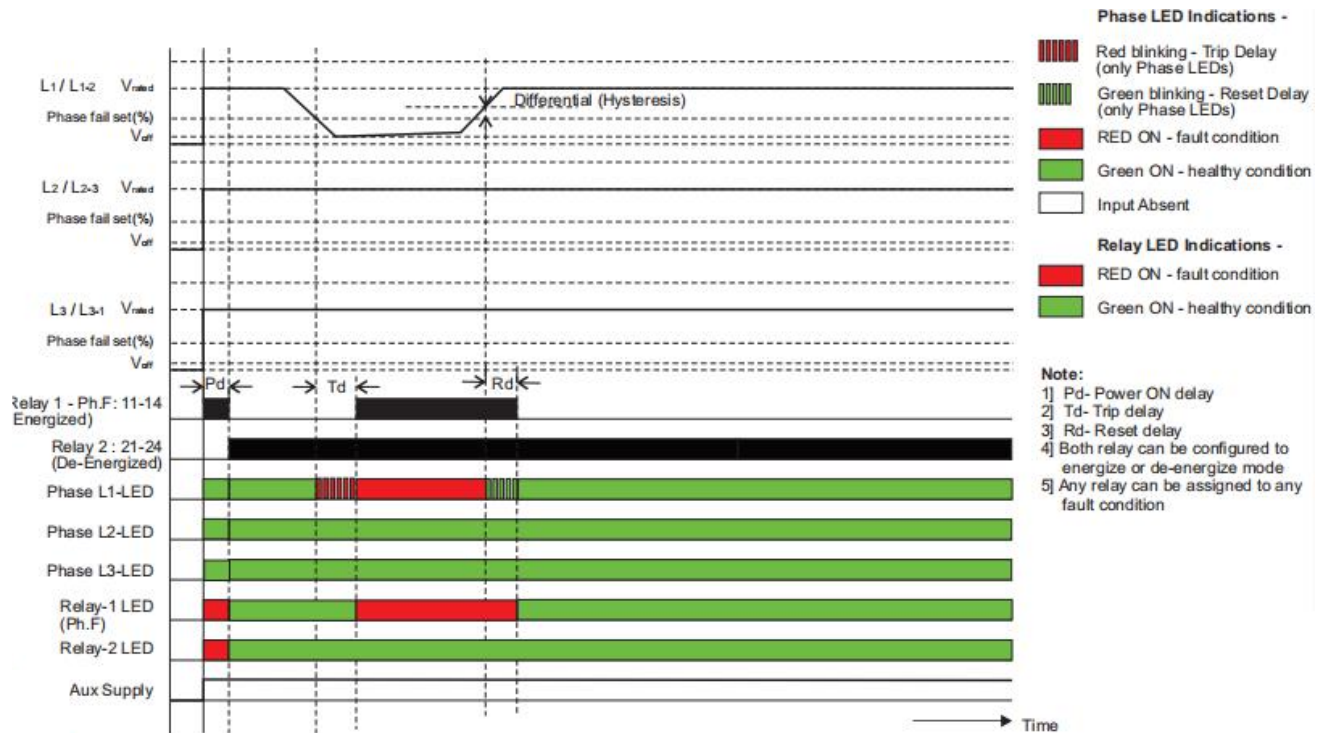
VOLTAGE PROTECTOR

Characteristics

Over (OV) and Under (UV) Voltage



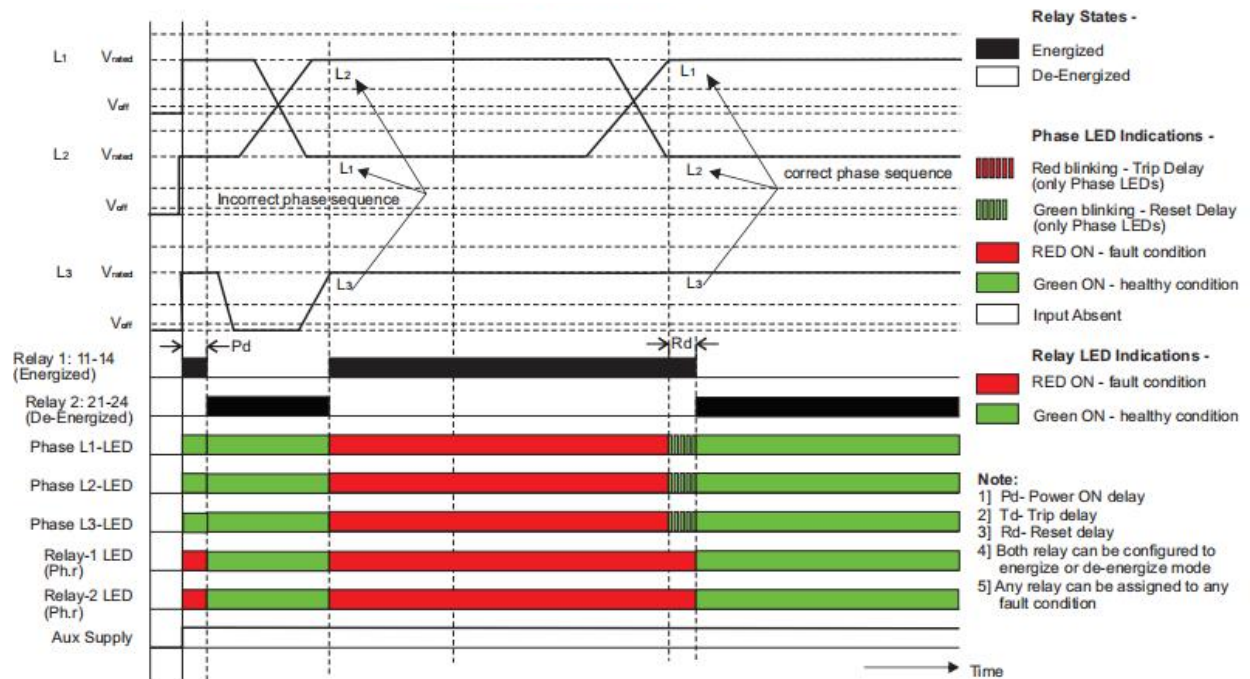
Phase Failure



ZAR SCR V

VOLTAGE PROTECTOR

Phase sequence



Ordering Information

Model Name	(✓)
System Type	
Single Phase 1	
Three Phase (On-site programmable to 1P2W / 3P4W / 3P3W)	
Auxiliary supply voltage	
60 - 300V AC DC	
20 - 60V DC / 20 - 40V AC	
Relay Type	
1 CO + 1CO	
1 CO	
2 CO	

Ordering Example

1. ZAR SCR V : Voltage Protection Relay, Single Phase, Relay contact 1CO+1CO, External Aux 60-300 V AC/DC

Ziegler

Redefine Innovative Metering

Ziegler Instrumentation UK Ltd.

Central Buildings, Woodland close old woods Trading Estate, Torquay Devon, TQ2 7BB, United Kingdom
+441803 616 800 | info@ziegler-instrument.com | ziegler-instrument.com

Ziegler

Redefine Innovative Metering

Technical Datasheet

ZAR SCRC

LINE PROTECTOR

ZAR SCRC

LINE PROTECTOR

ZAR SCRC, is a device designed to trip a circuit breaker/trigger alarm or initiate safety related action whenever fault is detected, for faults like Over Voltage , Under Voltage, Phase Unbalance, Phase Sequence detection, Phase Failure detection, Under and Over Frequency conditions etc.

Product features

- **True RMS measurement** : The instrument measures distorted waveform up to 15th Harmonic
- Trip relay with display with accuracy class 0.5
- **LED indications** : LED indication for Relay-1 and Relay-2 status, Trip indication are displayed on 4 Digit display, Dual color LED for per phase indication green color for, normal condition and Red color for faulty condition
- **Previous fault Storage** : Instrument memorizes the last 15 fault occurred
- **AND function** : User can use ANDing function to set trip on any two fault condition
- **Configuration via USB-based programmable cable** : User can configure the Meter using USB-based **programmable cable**
- **Auto / Manual reset** : In auto mode instrument automatically clears itself. If the device set into manual mode , the device must be manually reset by push button through display if it goes into fault
- **User selectable 3 phase 3W or 4W** : User can on site program the network connection as either 1P2W / 3P4W / 3P3W network using front panel keys
- **Adjustable set point and time delay for Over voltage, Under voltage, phase failure and other protection modes**
- **Trip or Buzzer mode** : Relay can be used to protect the system or simply to control the buzzer. Trip mode is for protection purpose and Buzz mode is for buzzer control



Fact Sheet

Display	
Type	4 Digit ultra bright LED display and indications
Mounting options	DIN Rail
Dimensions	DIN Rail : 53 x 110 x 60.5 mm
Interface	
Programming interface	Programming can be done using programmable cable or using front panel keys
Relay output	1CO, 2CO, 1CO+1CO
	5A / 250VAC / 30VDC
	Mechanical Endurance : 1×10^7 operations
	Electrical Endurance : NO - 3×10^4 operations NC- 1×10^4 Ops for 1CO+1CO/1CO 1×10^5 Ops for 2CO relay
Conforms Standards	
EMC	IEC 61326-1 : 2012, Table 2
Immunity	IEC 61000-4-3 10V/m min – Level 3
Safety	IEC 61010-1-2010 , Permanently connected use
IP for water & dust	IEC 60529 (IP 20 Front only)
Installation category	300 V CAT III / 600 V CAT II
High Voltage Test	2.2 KV AC, 50Hz for 1 minute between all circuits
Pollution Degree	2
ANSI Numbers	
27	Under voltage relay
47	Phase sequence
59	Over voltage relay
81	Under / Over frequency relay

Technical Specifications

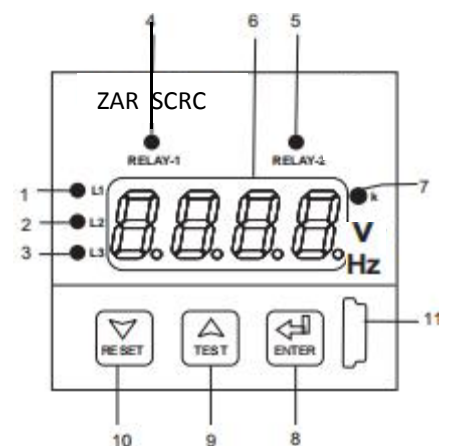
Input Details	
Input Voltage	
Nominal Input Voltage (AC RMS)	600VL-L (346.42VL-N)
Max Continuous Input Voltage (OL Indication)	127% of PT Secondary
System PT Secondary values	100VL-L to 600 VL-L programmable on-site
System PT Primary values	100VL-L to 1200 kVL-L programmable on-site
Nominal Frequency	50/60 Hz programmable on-site
Auxiliary Supply	
Higher Aux	60 V - 300 V AC/DC, Nominal value : 230 V AC/DC 50/60 Hz for AC Aux
Lower Aux	20 - 60 VDC/20- 40VAC, Nominal value : 48 VDC / 24 VAC 50/60 Hz for AC Aux
Aux supply frequency	45 - 66 Hz range
Overload withstand	
Voltage	2 x rated value for 1 second, repeated 10 times at 10 seconds
Operating measuring range	
Voltage Range	20...125% of PT Secondary
Frequency	40...70Hz

VA Burden (approx.)	
Nominal input voltage burden	< 0.6 VA approx. per channel
Auxiliary Supply burden	< 4 VA approx for AC aux
Accuracy	
Input Voltage	±0.5% of nominal value
Frequency	±0.2 Hz
Trip, Reset Delays, Power ON	±140 msec or ±5% of Set Delay, whichever is greater
Environmental	
Operating temperature	-10 to +55°C
Storage temperature	-25 to +70°C
Relative humidity	0... 90% non condensing
Shock	15g in 3 planes
Vibration	10... 55 Hz, 0.15mm amplitude
Influence of variations	
Temperature coefficient	0.025%/°C for Voltage
Reference condition for Accuracy	
Reference Condition	23°C +/- 2°C
Input waveform	Sinusoidal (distortion factor 0.005)
Input Frequency	50 or 60 Hz ±2%
Auxiliary supply voltage	Nominal value ±1%
Auxiliary supply frequency	Nominal value ±1%

Operating Elements

1	L1- LED : Indicates status of V1 (in 3P4W) and V1-2 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
2	L2-LED : Indicates status of V2 (in 3P4W) and V2-3 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay
3	L3- LED : Indicates status of V3 (in 3P4W) and V3-1 in 3P3W. It Lights green when input voltage is healthy, red in fault condition, red blinking in trip delay and green blinking in reset delay.
4/ 5	Relay-1 and Relay-2 status LED : Indicates status of relay-1and relay-2 respectively. It lights green for relay in healthy condition and red for relay in trip condition
6	4 Digit ultra bright 7 seg LED Display
7	K LED : It is used to show value in kV
8	Enter Key : Confirms changes of parameter setting. When on the measurement screen, holding for 3 sec enters in setup menu
9	Test Key : Increments setting value, move upwards in the menu or change parameter. It is also used to test operation of relay. Continuous holding of test key changes relay position and when release it resets the relay position (Only in healthy condition)
10	Reset Key : Decrements setting value, move downwards in the menu or change parameter. It is also used to reset relay when manual reset mode is selected
11	Configuration via USB-baed programming cable

See in below figure



Hysteresis Calculation Method

I .Example: -

For “OV” (Over Voltage)

PT Secondary = 100 VL-L.

Trip point = 105% of PT Secondary = 105 VL-L

Hysteresis = 2% of PT Secondary = 2 VL-L

Relay Reset point = Trip point - Hysteresis

= 105 - 2

= 103 VL-L.

For “Ph.un” (Phase Unbalance)

PT Secondary = 100 VL-L.

Trip point = 10% of PT Secondary = 10 VL-L

Hysteresis = 2% of PT Secondary = 2 VL-L.

Relay Reset point = Trip point -

Hysteresis

= 10 - 2

= 8 VL-L

Parameter Setting

Parameters	ZAR SCRC
Trip setting for Phase failure	20 - 85%
Trip setting for over voltage	101 - 125%
Trip setting for under voltage	70 - 99%
Trip setting for voltage unbalance	2 - 20%
Trip setting for max frequency	101 - 110%
Trip setting for min frequency	90 - 99%
Setting for Differential / hysteresis	1 - 15%*
Individual Faults can be deactivated as per system requirement	YES (Phase failure can not be deactivated)
Relay control mode	De-energize / Energize
Reset Delay	0.2 - 30s
Programmable Delay for over voltage, Under Voltage, Over Frequency, Under Frequency, Phase failure, Phase Unbalance	0 - 30s
Power ON Delay	0.5 - 30s
PT Primary	100 - 1200KV L-L
Reset option	Auto/Manual

Note : Regenerate voltage may get produced in open phase due to blown fuse for some loads. In such a case, set the trip point for

Phase Failure (20 - 85%) as per requirement considering the possibility of a higher regenerated voltage

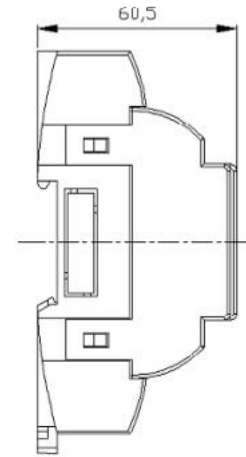
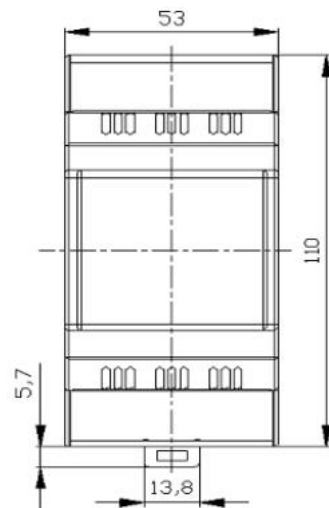
* Differential setting range for voltage unbalance is limited as per its setting of trip point.

ZAR SCRC

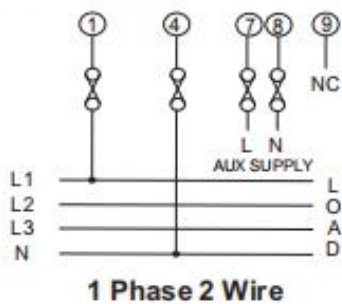
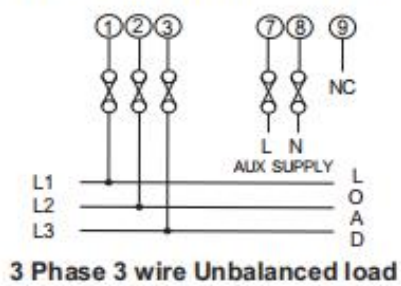
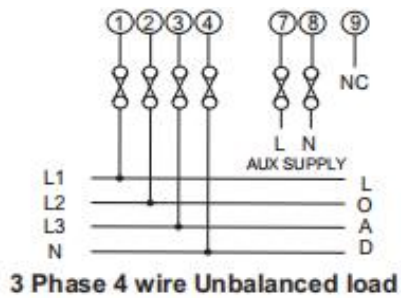
LINE PROTECTOR

Dimensions :

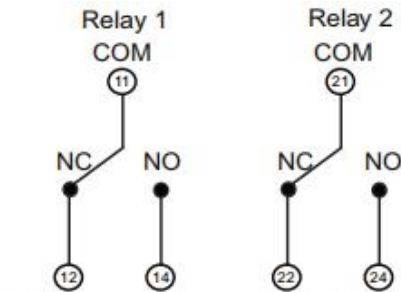
DIN RAIL MOUNTING:



Electrical Connections :



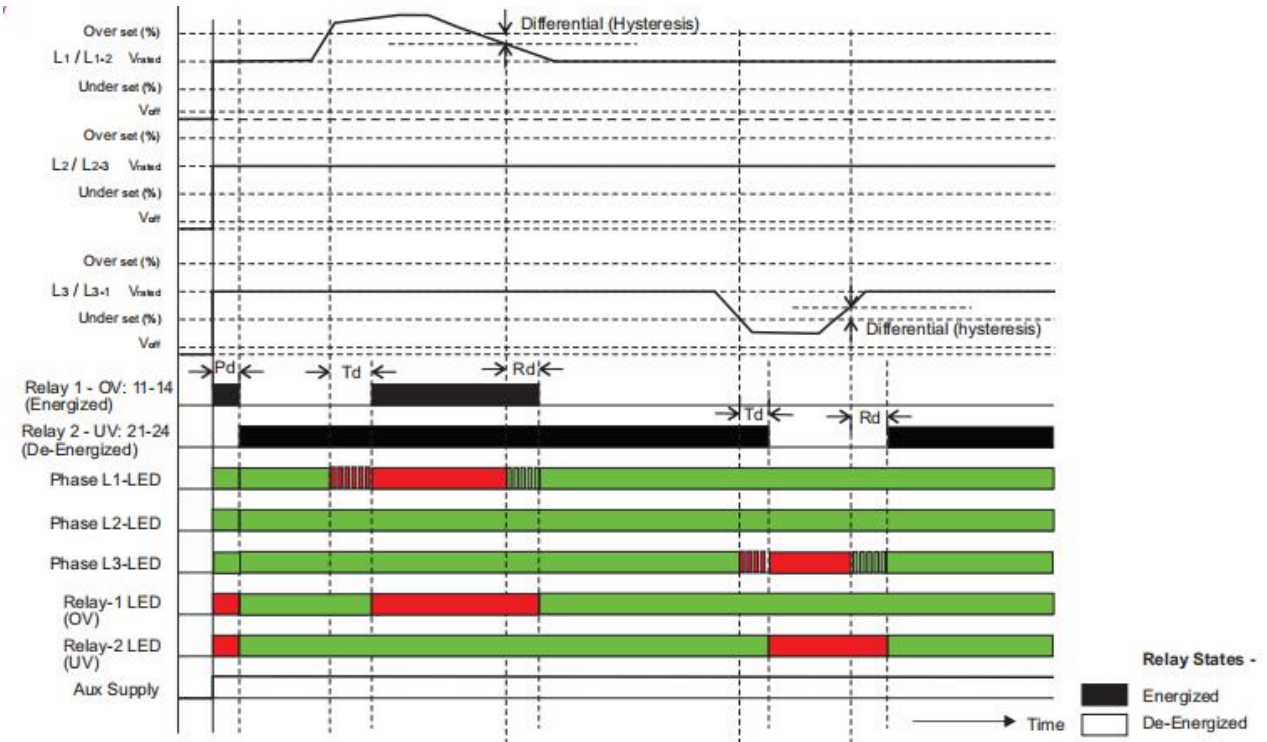
Relay Contacts



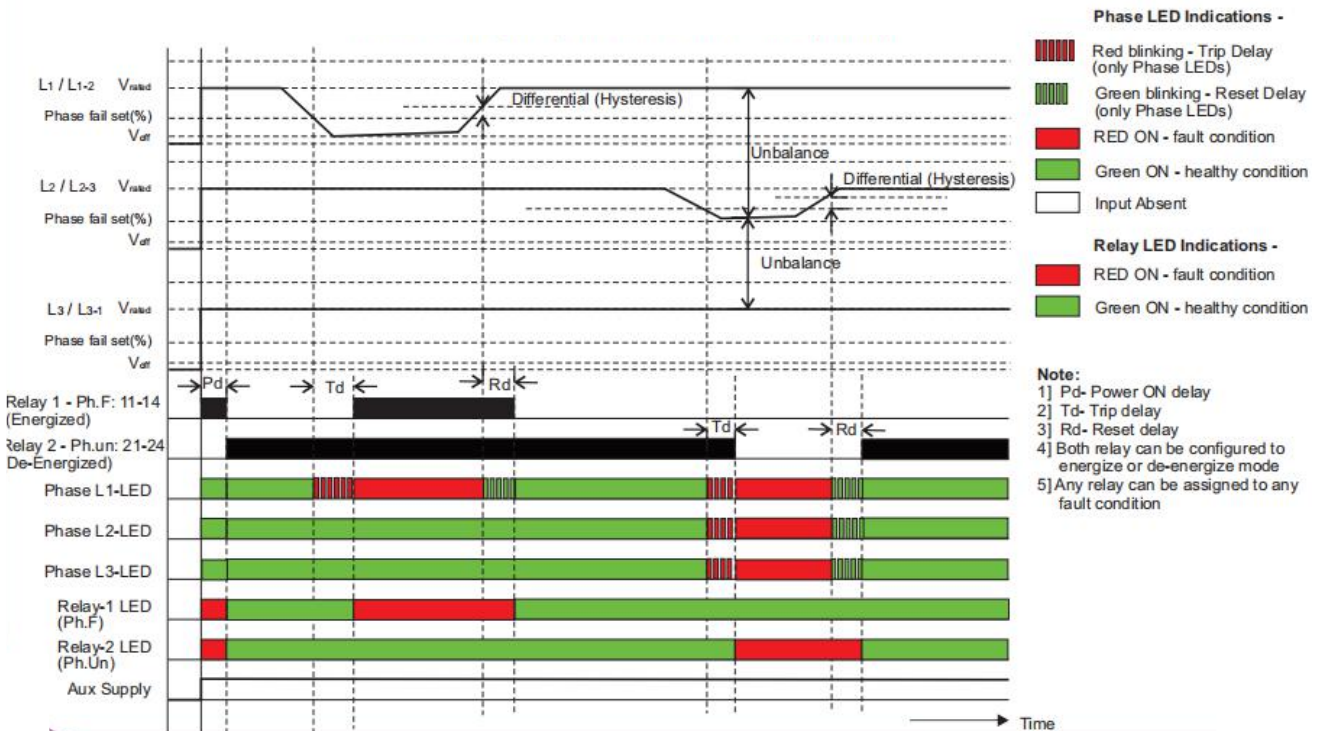
Note- Relay Contacts are shown in power off condition

Characteristics

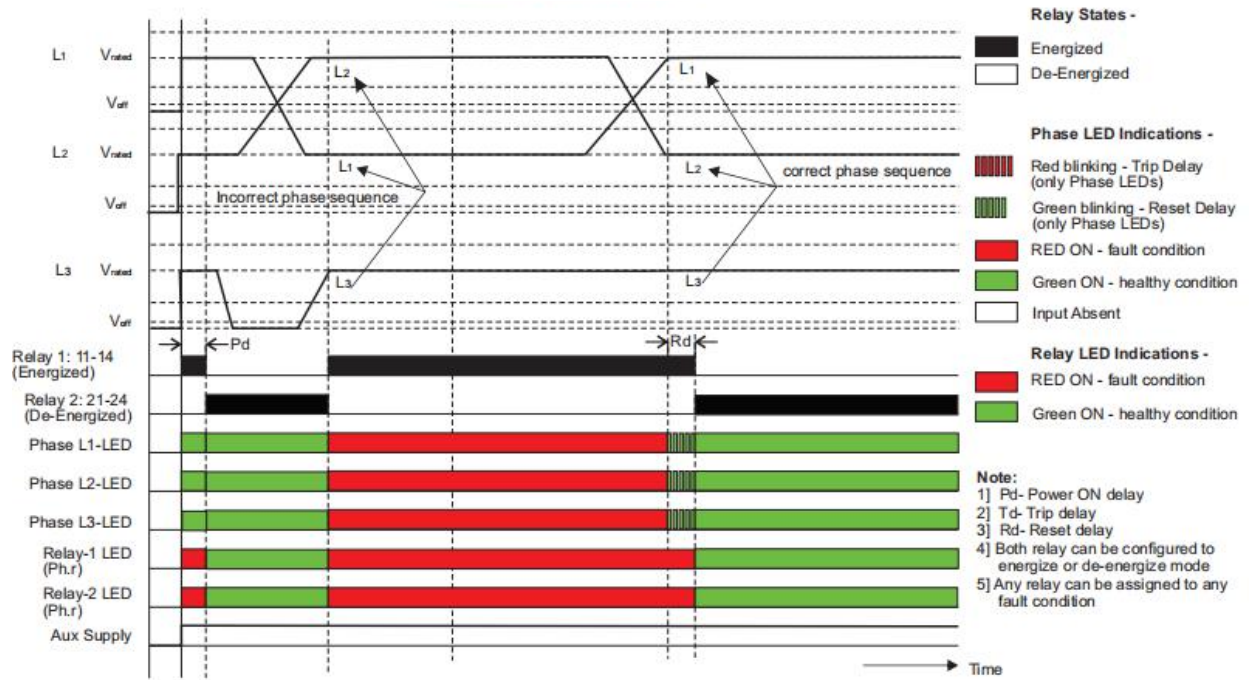
Over (OV) and Under (UV) Voltage



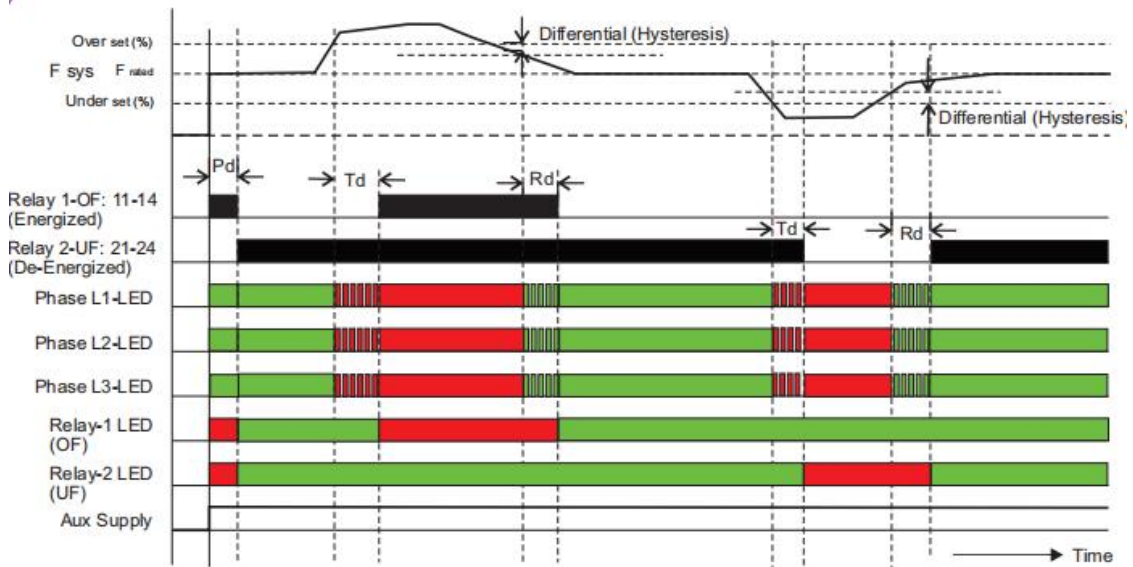
Phase Failure and Phase Unbalance



Phase sequence



Over and Under Frequency



ZAR SCRC

LINE PROTECTOR

Ordering Information

Model Name	(✓)
System Type	
Single Phase 1	
Three Phase (On-site programmable to 1P2W / 3P4W / 3P3W)	
Auxiliary supply voltage	
60 - 300V AC DC	
20 - 60V DC / 20 - 40V AC	
Relay Type	
1 CO + 1CO	
1 CO	
2 CO	

Ordering Example

1. ZAR SCRC : Line Protector, Single Phase, Relay contact 1CO+1CO, External Aux 60-300 V AC/DC

Ziegler

Redefine Innovative Metering

Ziegler Instrumentation UK Ltd.

Central Buildings, Woodland close old woods Trading Estate, Torquay Devon, TQ2 7BB, United Kingdom
+441803 616 800 | info@ziegler-instrument.com | ziegler-instrument.com