



35mm wide
Rail Mount

Certifications: CE cULus
PENDING

Features:

- Leakage current monitoring in 1Ø and 3Ø systems
- RMS value measurement (AC)
- CBCT connection monitoring
- Power ON delay, response delay and delay on release
- Adjustable switching hysteresis
- Two separate alarm relays with NO or NC operation selectable
- Test and Reset buttons

Technical Specifications

Display

Display	Liquid Crystal Display with backlight
Digits	3

Input Specifications

Functions	
Measurements	Leakage current monitoring (via external CBCT)
Time Settings	Power ON delay, response delay, delay on release
Alarm Indications	Pre - warning alarm, Trip, CBCT error
Latching	Selectable
Reset	Auto / Manual
Electrical Connection	1Ø-2 wire, 3Ø-4 wire
Auxiliary Supply	
Supply Voltage	230V AC
Frequency	45 - 65Hz
VA Rating	3VA max
Trip Settings	
Leakage Current	10mA - 30A
Trip Time Settings	
Power ON Delay	0 - 99.9sec
Response Delay (Trip time delay)	0 - 99.9sec
Delay ON Release	0 - 99.9sec
Response Time	< 50ms
Recovery Time (On removal of fault)	≤ 300ms
Hysteresis	
Current	0.5mA - 9.9A (Depends on trip setting)
Resolution	
Current	0.1, 1mA, 0.01A, 0.1A (Depends on trip setting)
Accuracy	
Current	±5% of Setting

Output Specifications

No. of Relays	2
Type of output (Relay1)	1C/O (SPDT)
Type of output (Relay2)	1C/O (SPDT)
Relay Rating	NO : 5A, 250V AC NC : 3A, 250V AC

LED Indication

LED1 (Red)	Alarm (Continuously ON after trip)
LED2 (Red)	Pre - Alarm (Continuously ON during pre alarm condition)

Note - LED1 and LED2 blink during CBCT error

Environmental Specifications

Temperature	Operating Temperature: 0°C to +55°C Storage Temperature : -20°C to +75°C
Humidity (non-condensing)	Upto 95% RH
Installation	Indoors
Altitude	Upto 2000m
Pollution Degree	2

Mechanical Specifications

No. of Push Buttons	3
Size	35mm width
Mounting	Din Rail Mount
Wire Size (max)	4 sq.mm
Screw tightening torque	0.5 N-M

CONFIGURATION MENU

900ELR-2

Press ▲ + ▼ for 3sec. to enter or exit configuration menu.

MAIN MENU

Press ● + ▲ or ● + ▼ to change parameter value

RL1 ● + ▲ ● + ▼ LM1 ● + ▲ ● + ▼ RL2 ● + ▲ ● + ▼ LM2 ● + ▲ ● + ▼ HYS ● + ▲ ● + ▼ PW ● + ▲ ● + ▼ RST ● + ▲

SUB MENU

Relay 1 (RL1)

Press ▲ to Enter Sub Menu from Main Menu

Press ▲ or ▼ to scroll through sub menu

Press ● + ▲ or ● + ▼ to change parameter value

Display (For 1sec)	Description	Default Value	Range	Display Condition
RNG	Range	999 ^{mA}	99.9mA / 999mA / 9.99A / 30.0A	Depending upon this selection, the range for earth leakage setting will be prompted
SV ^{mA} R1	Set trip value for earth leakage	100 ^{mA} R1	99.9mA: 10.0 - 99.9mA(Default : 30.0mA) 999mA: 100mA - 999mA(Default : 100mA) 9.9A: 1.00A - 9.99A(Default : 1.00A) 30.0A: 10.0 - 30.0A (Default : 10.0A)	Set trip value setting depends upon range selection
INS R1	Instantaneous Trip	5 R1	OFF / 2 / 3 / 4 / 5	
MOD R1	Relay operation mode	OFF R1	ON / OFF	ON : NO OFF: NC
LCH R1	Latch	OFF R1	ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed
RL1	Main Menu Relay 1 (RL1)			

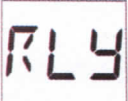
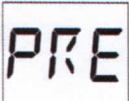
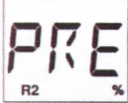
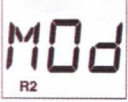
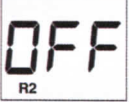
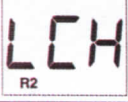
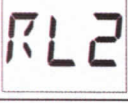
Time Setting for Relay 1 (TM1)

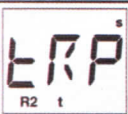
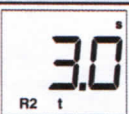
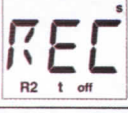
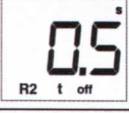
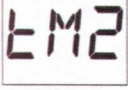
Press ▲ to enter Sub Menu from Main Menu

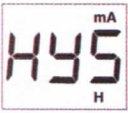
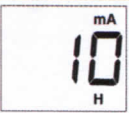
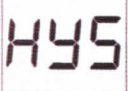
Press ▲ or ▼ to scroll through sub menu

Press ● + ▲ or ● + ▼ to change parameter value

Display (For 1sec)	Description	Default Value	Range	Display Condition
TRP ^t R1 t	Trip time delay	3.0 ^t R1 t	0.0 - 99.9s	
REC ^{t off} R1 t off	Recovery time	0.5 ^{t off} R1 t off	0.0 - 99.9s	
P.ON ^{ton} R1 ton	Power ON delay	5.0 ^{ton} R1 ton	0.0 - 99.9s	Applicable for Relay 1 & Relay 2
LM1	Main Menu Time setting for relay1			

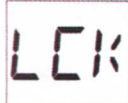
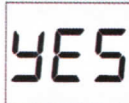
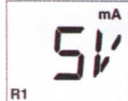
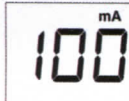
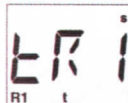
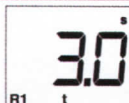
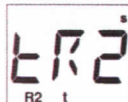
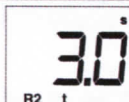
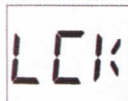
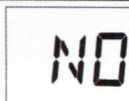
Relay 2 (RL2)				
Press ▲ or ▼ to scroll through sub menu		Press ●+▲ or ●+▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	Relay Selection		RL1 / PRE	If RL1 is selected, all settings of RL1 will be automatically set for RL2 and no other parameters of RL2 will be prompted and also.
	Pre Alarm		50 - 100%	
	Relay operation mode		ON / OFF	ON : NO OFF : NC
	Latch		ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed
	Main Menu Relay 2 (RL2)			

Time Setting for Relay 2 (TM2) [Not prompted when RL2 = RL1]				
Press ▲ to Enter Sub Menu from Main Menu				
Press ▲ or ▼ to scroll through sub menu		Press ●+▲ or ●+▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	Trip time delay		0.0 - 99.9s	
	Recovery time		0.0 - 99.9s	
	Main Menu Time setting for relay2			

Hysteresis (HYS)				
Press ▲ to Enter Sub Menu from Main Menu				
Press ▲ or ▼ to scroll through sub menu		Press ●+▲ or ●+▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	Hysteresis		99.9mA : 0.5 to 9.9mA (Default : 1.0mA) 999mA : 1 to 99mA (Default : 10mA) 9.9A : 0.01 to 0.99A (Default : 0.1A) 30.0A : 0.1 to 9.9A (Default : 1A)	
	Main Menu Hysteresis			

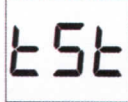
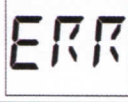
Trip Value Setting

Press **▲** key for 3 sec. to enter or exit Trip Value Setting menu :

Press ▲ or ▼ to scroll through main menu		Press ● + ▲ or ● + ▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	LOCK		YES / NO	This option will prompted first when the user enters the trip setting menu. User has to set NO after which he can access the trip setting menu.
	Set trip Value for Earth Leakage.		99.9mA: 10.0 - 99.9mA (Default: 30.0mA) 999mA: 100mA - 999mA (Default: 100mA) 9.9A: 1.00A - 9.99A (Default: 1.00A) 30.0A: 10.0 - 30.0A (Default: 10.0A)	The SV settings will be seamless and will not be limited to range selection. SV made to default whenever range is modified
	Pre Alarm		Set point low limit	
	Trip time delay for Earth leakage		Set point high limit	
	Trip time delay for Pre Alarm.		Filter time constant (Refer user guide)	This option will not be prompted if RL1 is selected for RL2 in config. menu.
	LOCK		NO	If this option is YES, this option will prompted first when the user enters the trip setting menu. User has to set NO after which he can access the trip setting menu.

TEST & RESET FUNCTION

● LED ON ○ LED OFF

Key	Description	Display (For 1sec)	LED'S	Display Condition
For TEST	Press TST key for >2sec		● ON ● R1 ● R2	Blinking at the rate: 1time per sec. After the test is over, it will display the current page (Online page) but all the LEDs will remain ON
Test passed		Actual Value	● ON ● R1 ● R2	Display will display the actual current till reset button is pressed. If CBCT error is there, display will show CT.E and all LED's will be blinking.
Test Failed			● ON ○ R1 ○ R2	Press RST button for >2sec to reset.
RST	Press RST key for >2sec	Actual Value	● ON ○ R1 ○ R2	If current is in mA then "mA" will be indicated.

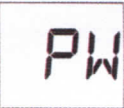
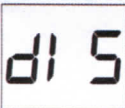
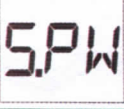
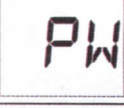
TRIP INDICATION

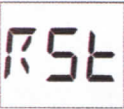
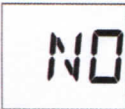
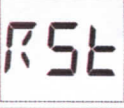
Trip Indication on press of **▲** key :
Trip value will be displayed till the key is pressed.

RESET

Press **●** key for 3 sec to reset manually

Master Password : 753

Password (PW)				
Press ▲ to Enter Sub Menu from Main Menu				
Press ▲ or ▼ to scroll through sub menu		Press ●+▲ or ●+▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	Password		ENB / DIS	Enable / Disable password protection option
	Set password		000-999	Will be prompted only when Password option is enabled
	Main Menu Password			

Factory set (RST)				
Press ▲ to Enter Sub Menu from Main Menu				
Press ▲ or ▼ to scroll through sub menu		Press ●+▲ or ●+▼ to change parameter value		
Display (For 1sec)	Description	Default Value	Range	Display Condition
	Reset (Factory set)		YES / NO	
	Main Menu Reset			