

selec 900ELR

Operating Inst



FEATURES

- q Leakage current monitoring in 10⁻³ A and 30 ms systems
- q RMS value measurement (AC)
- q CBC T detection
- q User selectable Power ON Delay Degree of protection : T
- q Delay and Recovery Delay
- q Adjustable hysteresis
- q Two separate relays with NO or NC contacts operating at 100mA
- ! Test and Reset via Front / Remote

SPECIFICATIONS

DISPLAY

3 Digits, Liquid Crystal Display with background illumination
DISPLAY CURRENT RANGE 30A

NETWORK CONNECTION

10-2 wire, 30-3 wire, 30-4 wire

AUXILIARY SUPPLY

230V AC 5% (For: 900ELR-2-B) 20V
110V AC 1.5% (For: 900ELR-V2-B)

FREQUENCY RANGE

50 - 60Hz

VATING

3VA max

TRIP SETTINGS

Leakage Current Range 10mA

INSTANTANEOUS TRIP CURRENT

ON / OFF (5 times of set current)

TIME SETTINGS

Power ON Delay : 0.5 - 99.9sec

Triptime : 0 - 99.9sec (N/A)

Recovery time : 0 - 99.9sec

RESPONSE

< 30ms (if trip current = 5 x set)

Instantaneous trip is ON

< 50ms (if trip current = 1 x set)

CBC T DETECTION
Yes, when Cabotent or short
ACCURACY
Current 5% of Setting
Time Parameter 5% of setting 0ms
OUTPUT SPDT DIN SA
No. of Relay Contacts : Relay 1

RELAY RATING

5A @ 250V AC (NO)
3A @ 250V AC (NC)

LED INDICATOR

LED1 (Red): Relay 1
LED2 (Red): Relay 2

ENVIRONMENT SPECIFICATIONS

Temperature use

- Altitude of up to 2000 meters
- Pollution degree
- Impulse withstand voltage(Uimp) : 1kV

Storage : -20°C to +70°C

Humidity: Up to 95% RH, non-condensing

MECHANICAL SPECIFICATIONS

No. of Push Buttons : 3

Size : 35mm width

Mounting : 35mm Din Rail Mount

Wire Size (max) : 4sq.mm

NETWOR CONNECTION

Screw tightening torque : 0.5N.m

WEIGHT

217gms

CE CERTIFICATION: IEC 60947-2

SAFETY PRECAUTIONS

All safety related codifications, instructions that appear in this operating manual on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

If there is physical damage to the unit then do not use Read complete instructions and operation of the unit.

WIRING GUIDELINES

1. To prevent the risk of electric shock to the equipment must be kept OFF while doing the wiring arrangement.

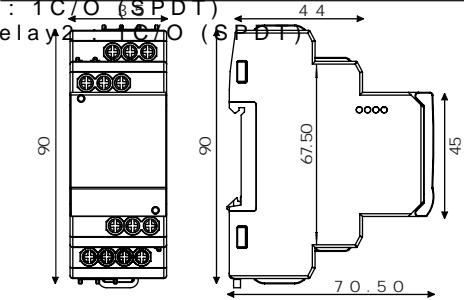
2. Wiring shall be done strictly according to the terminal layout with shortest connections.

3. Use screen shielded cable or twisted pair cable and ensure that all connections are correct.

CAUTION

1. To ensure the safe operation of unit, check the wiring and connections.
2. It is recommended to test the unit periodically to satisfy regulations.

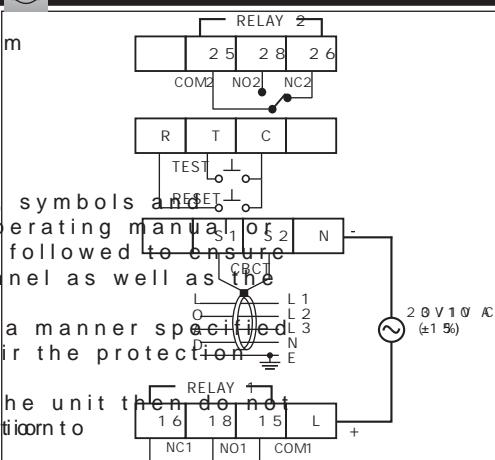
DIMENSIONS (All dimensions)



LED INDICATION

Conditions	R1 LED	R2 LED
No fault	OFF	OFF
Trip	ON	ON
(if LR2 is armed for RE1)	OFF	ON
(if LR2 is armed for RE)	BLINKING	BLINKING
CBCT error	BLINKING	BLINKING

TERMINAL CONNECTIONS

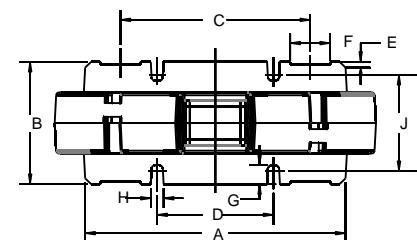


NOTE FOR CONNECTION

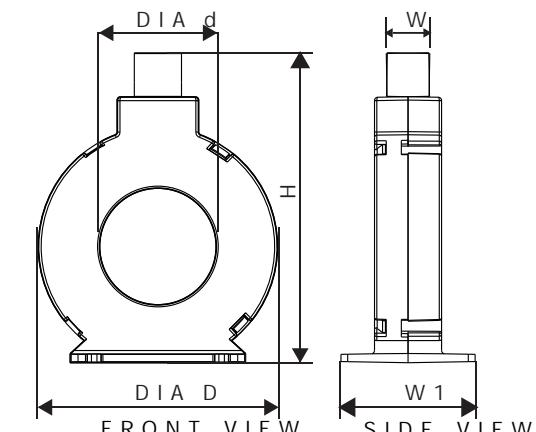
For single phase applications, only the live and neutral needs to be passed through the CBCT. The Earth MUST pass through the CBCT while doing the wiring arrangement. The distance between relay and CBCT should be kept as short as possible. Use screen shielded cable or twisted pair cable and ensure that all connections are correct. (Greater than 1m).

ACCESSORIES

CORE BALANCED CURRENT TRANSFORMER
TOP VIEW



CBCT TYPE	Dimensions (mm)								
	A	B	C	D	E	F	G	H	J
CBCT 5	51	740	NA	38	1	13	6.2	54	31.5
CBCT 10	85	140	62	38	1	13	6.2	54	31.5
CBCT 20	120	40	70	38	1	13	6.2	54	31.5
CBCT 210	199.15	55	NA	120	NA	NA	11	6.6	39.6
CBCT 310	299	65	NA	200	NA	NA	16	6.6	39.6



CBCT TYPE	Dimensions (mm)				
	D	d	H	W	W1
35-1	71.30	35	97	15	40
70-1	107.50	70	133	15.5	40
120-1	158	120	184.5	5.5	40
210-1	268	210	270	25	55
310-1	377	310	379	25.5	65

CT TYPE PC (Zero Phase Current)
TOLERANCE: Lineal tolerance 0.1 mm

DIP SWITCH SETTING

NOTE : DIP switch for Auto Reset and Mode settings is on the side of the Instrument.

DIP SW \ STATE	OFF	ON
SW1	ON Delay	Interval
SW2	Non Auto Reset	Auto Reset
SW3	Non Over Run	Over Run
SW7	Retention OFF	Retention ON
SW8	Fast Speed	Slow Speed

DIP SWITCH SETTINGS FOR AUTO RESET

RESET	SW4	SW5	SW6
Immediate	OFF	OFF	OFF
1 sec	ON	OFF	OFF
2 sec	OFF	ON	OFF
3 sec	ON	ON	OFF
4 sec	OFF	OFF	ON
5 sec	ON	OFF	ON
6 sec	OFF	ON	ON
7 sec	ON	ON	ON

NOTE : Auto Reset Setting is applicable only when DIP SW2 is ON.

DIP SWITCH SETTING EXAMPLE



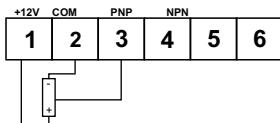
DIP SW	FUNCTION SETTING
1	Interval
2	Auto Reset
3	Non Over Run
4, 5, 6	Auto Reset Time=1sec
7	Retention ON
8	Slow Speed

WIRING DIAGRAM FOR COUNT INPUT

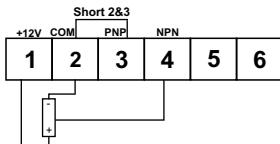
(Sensor color codes :-)

Red = +12V, Green = CNT, Black = GND
Brown = +12V, Black = CNT, Blue = GND

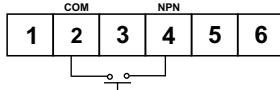
External Wiring Diagram for PNP Sensor



External Wiring Diagram for NPN Sensor



External Wiring Diagram for Potential Free Count



(Specifications subject to change as development is a continuous process).

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