



Treotech



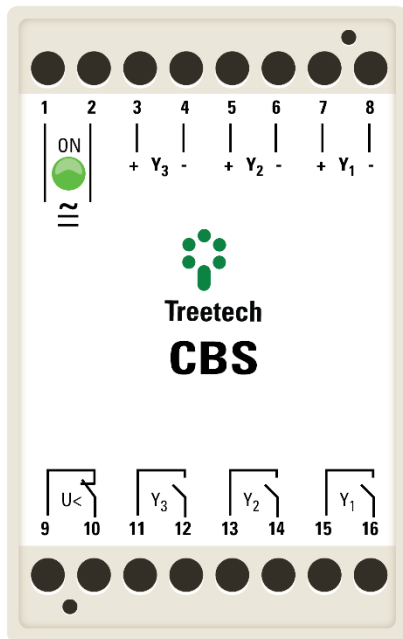
CBS

Circuit Breaker Supervisor

**PRODUCT
CATALOG**

treotech.com.br

CIRCUIT BREAKER SUPERVISOR – CBS



There is currently growing concern regarding the reliability of electrical systems.

All essential equipment must be continuously monitored so that systems can operate with the least possible interruption.

Circuit breakers and lockout relays are among these essential pieces of equipment; they must always be maintained in perfect condition to operate in the event of serious faults that could cause permanent damage to the system.

The Circuit Breaker Supervisor - CBS was developed for continuous monitoring of the opening and closing coils of these devices, verifying their continuity.

A CBS can monitor up to 3 coils—for example, 2 circuit breaker opening coils and 1 closing coil—as well as the auxiliary supply voltage, with independent signaling contacts for each event.

The 3 coil supervision circuits are galvanically isolated from each other, allowing coils powered by different voltage sources or coils from different circuit breakers to be monitored on the same CBS. The CBS can operate

with auxiliary voltage from 85 to 265 Vdc/Vac, and monitor coils fed with direct voltages in the range 80 to 300 Vdc.

Due to its compact dimensions and 35mm DIN rail mounting, the CBS can be easily installed even in the circuit breaker control panel.

FEATURES AND FUNCTIONS

ROBUST HARDWARE

The CBS design exceeds EMC (Electromagnetic Compatibility) standards to withstand the harsh electromagnetic conditions of substations and an operating temperature range of -10 to 70°C.

COIL SUPERVISION

Supervision of up to 3 coils.

UNIVERSAL POWER SUPPLY

The equipment features a universal power input of 85 to 265 VDC/VAC at 50 or 60 Hz, with a power consumption of <8 W.

INDICATION RELAYS

The CBS features 4 relays for circuit breaker status indication.

TECHNICAL DATA

INFORMATION	RANGE/DESCRIPTION
Supply voltage	85 to 265 VDC/VAC, 50/60 Hz
Maximum consumption	< 8 W
Operating temperature	-10 to 70 °C
Protection rating	IP 20
Mounting	35 mm DIN rail mounting
Connections	0.3 to 2.5 mm ² , 22 to 12 AWG
Outputs	3 normally open (NO) contacts (coil monitoring) 1 normally closed (NC) contact (auxiliary voltage monitoring)
Maximum switching power	60W / 62.5 VA
Maximum switching voltage	220 VDC / 250 VAC
Maximum continuous current	2 A
Monitored coil resistance	0 a 5 kΩ
Monitored coil voltage	80 to 300 VDC
Maximum current injected into coils for continuity monitoring	1 mA
Isolation between supply input and coil measurement circuits	2500 VAC rms
Isolation between coil measurement circuits	2000 VAC rms

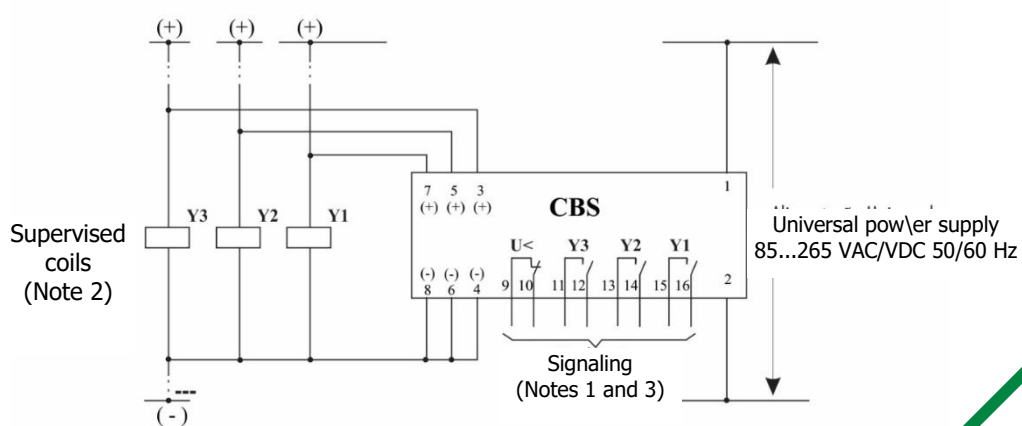
TYPE TESTS

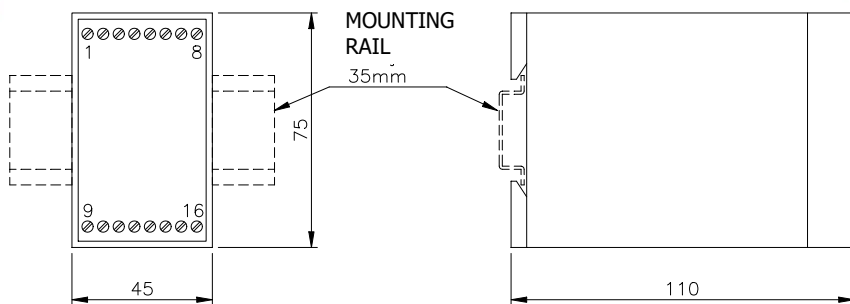
Immunity to Electrical Transient (IEC 60255-22-1)	
1st cycle peak value	2.5 kV
Frequency	1.1 MHz
Duration and repetition rate	2 s, 400 bursts/sec.
Decay to 50%	5 cycles
Voltage Impulse (IEC 60255-5)	
Waveform	1.2 / 50 ms
Amplitude and energy	5 kV
Number of pulses	3 negative and 3 positive, 5 s interval
Applied Voltage (IEC 60255-5)	
Power-frequency withstand voltage	2 kV 60 Hz 1 min to ground

Notes:

- 1) Signaling contacts Y1, Y2, and Y3 can be supplied in the NC configuration;
- 2) Coil monitoring inputs are polarized. Reverse polarity connection may damage the CBS;
- 3) Contact 9-10 signals a lack of auxiliary voltage for the CBS (operation with voltage below approximately 85V);
- 4) All contacts are shown with the CBS in the de-energized state.

Independent circuit coils

ELECTRICAL
DIAGRAM



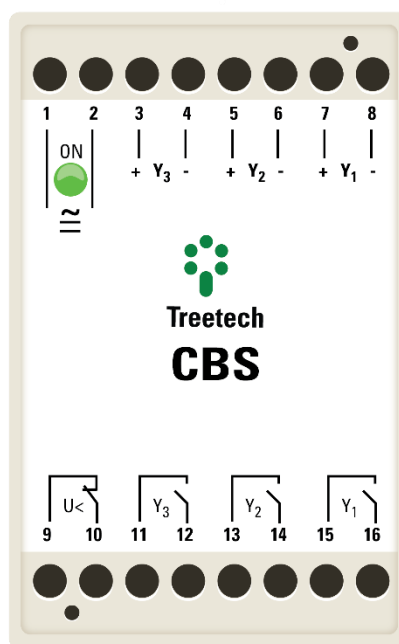
FRONT VIEW

SIDE VIEW

ALL DIMENSIONS IN mm

PRODUCT
DIMENSIONS

PRODUCT
FRONT VIEW



ORDER SPECIFICATION

When ordering the product, it is necessary to specify:



- ✓ Product name;
- ✓ Quantity;
- ✓ Configuration of contacts Y1, Y2, and Y3:
 - NO (standard);
 - NC (upon request).

**Treotech®**

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Check the list of our distributors at:

www.treotech.com.br/contato/representantes/