

CBS

Catalog



Circuit Breaker Supervisor

Nowadays there is an increasing concern about the electric system reliability. All the essential equipment must be monitored continually for the system can operate with as minimum interruptions as possible.

The circuit-breakers and blocking relays are some of these essential devices, so they have to keep always a perfect conservation condition to operate in case of serious faults that can cause system permanent damages.

The Circuit Breaker Supervisor - CBS was developed to provide continuous supervision of the status of opening and closing coils of circuit breakers and blocking relays in electrical systems verifying their continuity. A CBS can supervise up to three coils, (ie. Two opening coils and one closing coil) and the auxiliary voltage of power supply, with separate contacts to signal each event.

The 3 coil supervision circuits are galvanically insulated from each other, enabling the monitoring of coils fed by different voltage sources or coils from different circuit breakers in one CBS.

The CBS can operate with an auxiliary voltage from 85 to 265 Vdc/Vac and monitor coils fed with voltages between 80 and 300 Vdc.

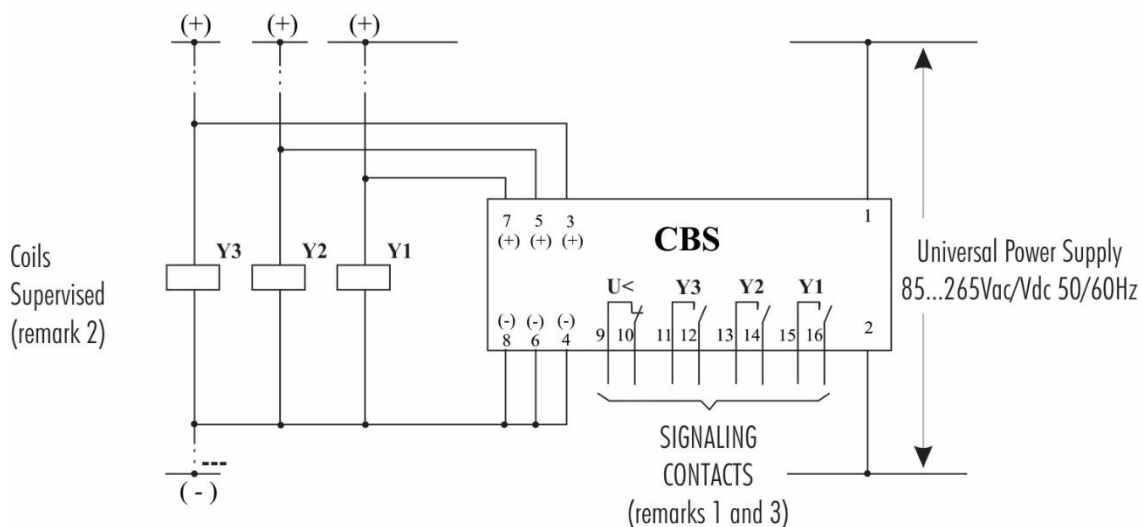
Due to its compact dimensions and its assembly method in 35mm DIN rails, the CBS can be easily installed even in the circuit breaker control panel.

Technical Data

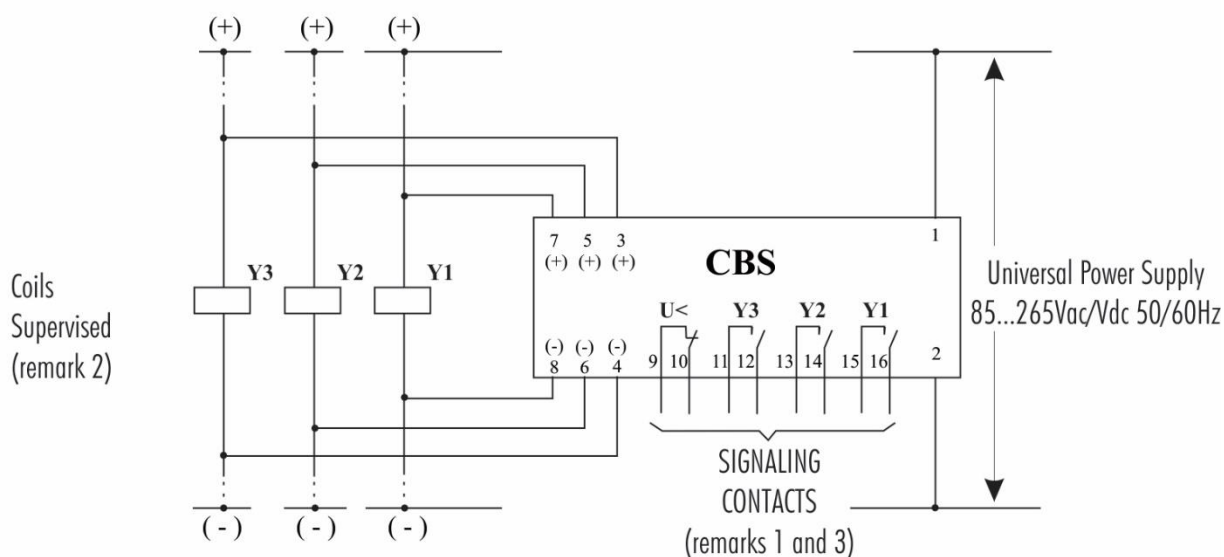
Power Supply:	85 to 265 Vcc/Vca, 60/60 Hz
Consumption:	< 8W
Temperature:	-10 to 70°C
Outputs:	3 NO Contacts (Supervision of the Coils): 1 NC Contacts (Supervision of the Auxiliary Voltage)
Maximum switching power:	60W / 62,5 VA
Maximum switching voltage:	220 Vdc/25Vac
Maximum conduction current:	2 A
Resistance of the Monitored Coil:	0 ~5kohms
Voltage of monitored coils:	80~300Vc
Maximum current injected in the coils for continuity supervision:	1mA
Insulation between power supply and coil supervision circuits:	2500Vac rms
Insulation between coil supervision circuits:	2000Vac rms
Degree of Protection:	IP 20
Mounting:	DIN Rail 35mm
Wire size:	0,3 to 2,5mm ² , 22 to 12 AWG

Connection Diagrams

Coils with common negative



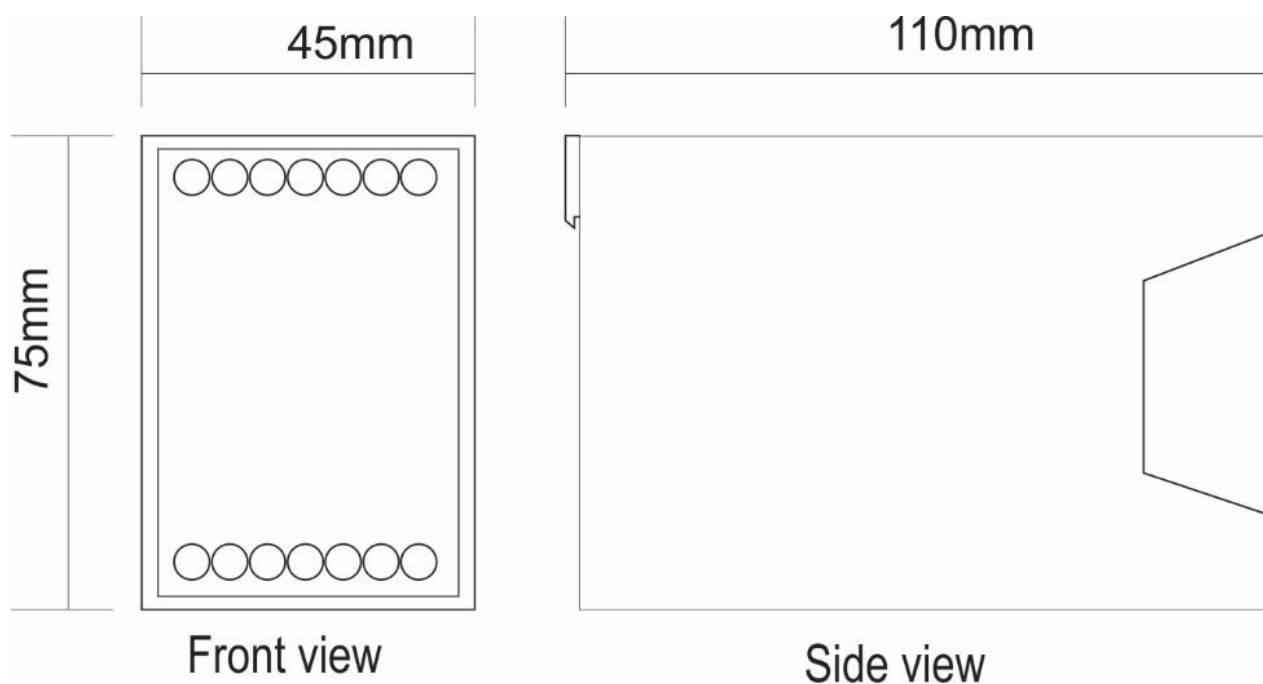
Coils in independent circuits



Remarks:

- 1) The output contacts Y1, Y2 and Y3 can be supplied normally closed under request (see ordering specification)
- 2) The coil supervision inputs Y1, Y2 and Y3 must be connected with the correct polarity as shown above. The connection with inverted polarity can damage the CBS
- 3) The output contact 9-10 sinalizes loss of auxiliary voltage to the CBS (activation with voltage below 85V approximately).
- 4) All contacts shown with CBS de-energized.

Dimensions



Order Specification

The Circuit Breaker Supervisor CBS is a universal device with power feed input 85 to 265Vdc/Vac 50/60Hz. The CBS accepts coils with voltage 80...300Vdc and resistance 0...10kW.

Therefore, in purchase orders only the following need to be informed:

- Circuit Breaker Supervisor CBS
 - Quantity
 - Configuration of the output contacts Y1, Y2 and Y3: NO (standard) or NC (under request)

Type Testing

Immunity to Electric Transients (IEC 60255-22-1):	
Peak value of 1st cycle:	2,5kV
Frequency:	1,1MHz
Time and repetition time:	2s, 400 surges/seg.
Decay at 50%:	5 ciclos
Voltage pulse (IEC 60255-5):	
Wave form:	1,2 / 50ms
Amplitude:	5kV
Number of pulses:	3 negative e 3 positive, 5s interval
Applied voltage (IEC 60255-5):	
Bearable voltage at the industrial frequency:	2kV 60Hz 1min against ground



BRAZIL

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