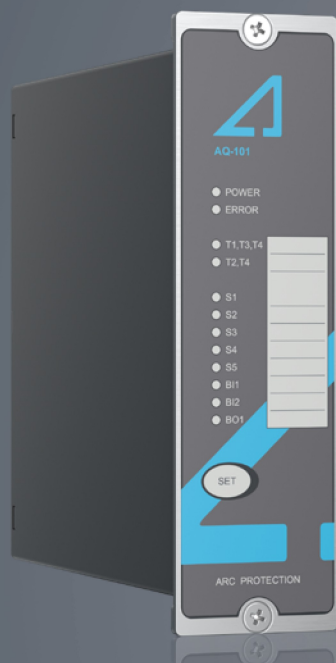


AQ-101 ARC Point sensor unit

AQ-101 is a sophisticated microprocessor-based arc flash protection unit for arc light detection. It is designed to minimize the damage caused by an arcing fault (arc flash) by tripping the circuit breaker sourcing the fault current. The AQ-101 acts as a sub unit to AQ-110P in an AQ 100 arc protection system. It can also function as standalone in light only systems. The AQ-101 complete system self-supervision function provides the highest level of dependability by continuously monitoring all internal system functions along with external connections.



ORDER CODE

AQ-101 - X X X X

Auxiliary Power supply

- A 80...265 Vac/dc
- B 18...72 Vdc

Trip relay T3 characteristic

- A Normally open (NO) type
- B Normally closed (NC) type

Additional sensor channels *)

- A None
- B Fiber optic sensor channel

Binary inputs nominal voltage

- A 24 Vdc
- B 110 Vdc
- C 220 Vdc

*) not applicable for AQ-101S

- Practically unlimited number of units can be interconnected in one system
- AQ 100 Standard Arc Scheme approach for fast engineering and simple setting
- Connects up to 12 point sensors and one optional fiber

PROTECTION

- Light L>
- Light and Pressure L>/P>
- Circuit Breaker Failure Protection 50BF
- Trip time using mechanical trip relays: 7 ms*
- Reset time (arc light stage): 2 ms
- Protection operational after power up: 88 ms
- *total trip time using arc light (L>) or phase/ground overcurrent (I>) from AQ-110 and arc light (L>)

I/O

Applicable sensors:

- AQ-01 a,b,c **light sensor
- AQ-02 light and pressure sensor
- AQ-06 plastic fiber sensor (5-50m length) (option)
- AQ-07 glass fiber sensor (5-60m length) (option)
- ** a = 8,000 Lux activation, b = 25,000 Lux activation, c = 50,000 Lux activation

Trip Relays T1, T2, T3, T4

- Number: 3 NO + 1 NC or 4 NO
- Rated voltage: 250 Vac/dc
- Continuous carry: 5 A

- Make and carry for 0.5s: 30 A
- Make and carry for 3s: 16 A
- Breaking capacity DC, when time constant L/R=40 ms: 40 W; 0.36 A at 110 Vdc
- Contact material: AgNi 90/10

Binary Output BO1

- Rated voltage: +24 Vdc
- Rated current: 20 mA (max)
- Number of outputs: 1

Binary Inputs BI1, BI2

- Threshold Voltage: 24 or 110 or 220 Vdc
- Rated Voltage: 250 V
- Rated current: 3 mA
- Number of inputs: 2

Power supply

- Us: 80...265 Vac/dc (option 18...72 Vdc)
- Maximum interruption: 100 ms
- Maximum power consumption: 5 W
- Standby current: 90 mA

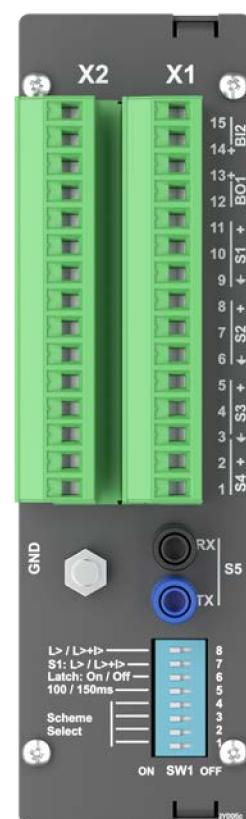
HMI

- 12 Indication LED's
- Multifunction push button
- Autoconfiguration

- Indication reset
- System check

SELF SUPERVISION

- Sensors and wiring
- Binary I/O
- Trip coil
- Power supply
- Internal voltages
- Settings



AQ-101 rear view