

AQ-110P ARC Point sensor unit with overcurrent

AQ-110P is a sophisticated microprocessor-based arc flash protection unit with combined current and arc sensing. When the AQ-110P detects an overcurrent in the incoming feeder and a light signal from a sub unit or a direct light sensor, it minimizes the damage caused by an arcing fault (arc flash) by tripping the circuit breaker sourcing the fault current. The AQ-110P 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-110P - 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

- Arc current and light detection
- Connects to arc quenching device type AQ-1000 and AQ-2000 for rapid arc extinguishing
- Connects up to 12 point sensors
- Full self-supervision of all system components and interconnections

PROTECTION

- 50ARC Overcurrent
- 50NARC Ground fault
- 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

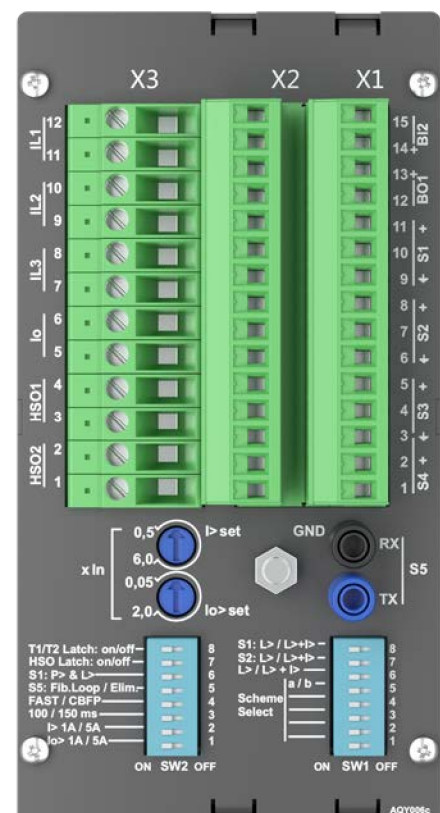
HMI

- 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-110P rear view