

AQ-103 Point sensor unit with Modbus



AQ-103 is a sophisticated microprocessor-based arc flash protection unit with arc light detection. It acts as a sub-unit to an AQ-110P unit in an AQ 100 arc protection system. It can also function as a standalone unit in light-only systems. AQ-103 is designed to minimize the damage caused by an arcing fault (arc flash)

by tripping the circuit breaker that sources the fault current. The complete system self-supervision function of AQ-103 provides the highest level of dependability by continuously monitoring all internal system functions as well as external connections. AQ-103 provides communication through Modbus protocol.

HIGHLIGHTS:

- É Connects to a maximum of 14 point sensors and 1 fiber sensor.
- É A variant with Modbus communication is also available.

PROTECTION

- Light only
- Light and pressure
- Circuit breaker failure protection (50BF/52BF)
- Total trip time: 7 ms

APPLICABLE SENSORS

- AQ-01 light point sensor
- AQ-02 light and pressure point sensor
- AQ-06 plastic fiber sensor (3...40 m)
- AQ-07 glass fiber sensor (3...50 m)
- AQ-08 high-temperature glass fiber sensor (3...15 m)

I/O

Trip relays (T1, T2, T3, T4)

- Number: 3 NO + 1 NC or 4 NO
- Rated voltage: 250 V AC/DC
- Continuous carry: 5 A
- Make-and-carry for 3 s: 16 A
- Make-and-carry for 0.5 s: 30 A

Binary output (BO1)

- Number of outputs: 1
- Rated voltage: +24 V DC

Binary inputs (BI1, BI2)

- Number of inputs: 2
- Threshold voltage: 24 V DC
- Rated voltage: 250 V

Power supply

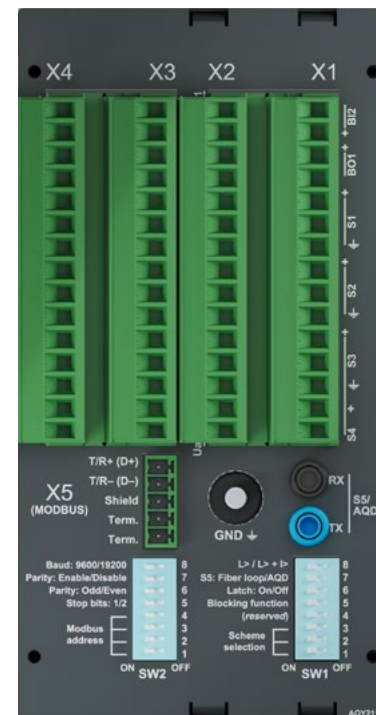
- Auxiliary power supply: 92...265 V AC/DC
- Auxiliary power supply: 18...72 V DC (optional)

HMI

- 25 indication LEDs
- Multifunction push button (SET)
- Autoconfiguration
- Indication reset
- System check

SELF-SUPERVISION

- Complete system self-supervision:
 - Internal functions (configurations and device health)
- External connections (binary inputs and arc sensors)



AQ-103 rear view, Modbus variant

AQ-101 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 that sources the fault current. AQ-101 acts as a sub-unit to an AQ-110P unit in an AQ 100 arc protection system. It can

also function as a standalone unit in light-only systems. The complete system self-supervision function of AQ-101 provides the highest level of dependability by continuously monitoring all internal system functions as well as external connections.

HIGHLIGHTS:

- É A practically unlimited number of units can be interconnected in one system.
- É Standard Arc Schemes allow for fast engineering and simple setting.
- É Connects to a maximum of 12 point sensors and 1 fiber sensor (optional).

PROTECTION

- Light only
- Light and pressure
- Circuit breaker failure protection (50BF/52BF)
- Total trip time: 7 ms

APPLICABLE SENSORS

- AQ-01 light point sensor
- AQ-02 light and pressure point sensor
- AQ-06 plastic fiber sensor (3...40 m)
- AQ-07 glass fiber sensor (3...50 m)
- AQ-08 high-temperature glass fiber sensor (3...15 m)

I/O

Trip relays (T1, T2, T3, T4)

- Number: 3 NO + 1 NC or 4 NO
- Rated voltage: 250 V AC/DC
- Continuous carry: 5 A
- Make-and-carry for 3 s: 16 A
- Make-and-carry for 0.5 s: 30 A

Binary output (BO1)

- Number of outputs: 1
- Rated voltage: +24 V DC

Binary inputs (BI1, BI2)

- Number of inputs: 2
- Threshold voltage: 24 V DC
- Rated voltage: 250 V

Power supply

- Auxiliary power supply: 92...265 V AC/DC
- Auxiliary power supply: 18...72 V DC (optional)

HMI

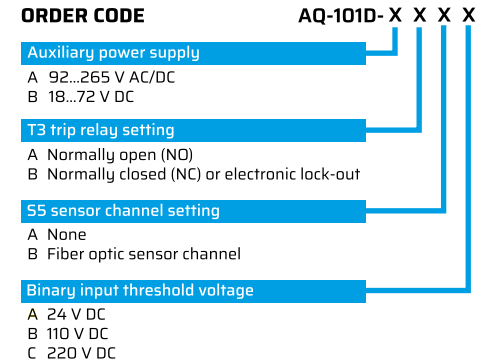
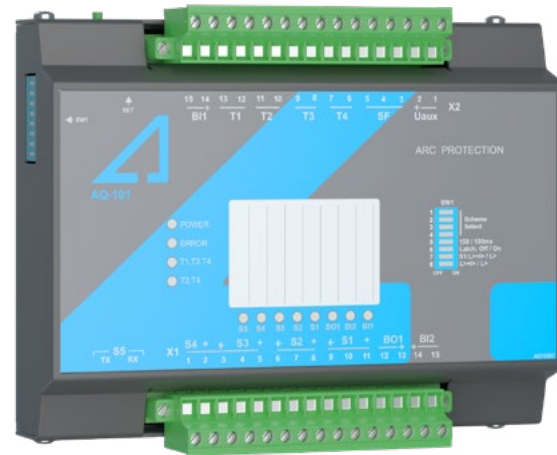
- 12 indication LEDs
- Multifunction push button (SET)
- Autoconfiguration
- Indication reset
- System check

SELF-SUPERVISION

- Complete system self-supervision:
 - Internal functions (configurations and device health)
- External connections (binary inputs and arc sensors)



AQ-101 rear view



AQ-101D Point sensor unit (DIN rail)



AQ-101D 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 that sources the fault current.

AQ-101D acts as a sub-unit to an AQ-110P unit in an AQ 100 arc protection system. It can

also function as a standalone unit in light-only systems. The complete system self-supervision function of AQ-101D provides the highest level of dependability by continuously monitoring all internal system functions as well as external connections.

HIGHLIGHTS:

- É Allows for easy DIN rail installation.
- É Has 12 indication LEDs for fault analysis.

PROTECTION

- Light only
- Light and pressure
- Circuit breaker failure protection (50BF/52BF)
- Total trip time: 7 ms

APPLICABLE SENSORS

- AQ-01 light point sensor
- AQ-02 light and pressure point sensor
- AQ-06 plastic fiber sensor (3...40 m)
- AQ-07 glass fiber sensor (3...50 m)
- AQ-08 high-temperature glass fiber sensor (3...15 m)

I/O

Trip relays (T1, T2, T3, T4)
 Number: 3 NO + 1 NC or 4 NO
 Rated voltage: 250 V AC/DC
 Continuous carry: 5 A
 Make-and-carry for 3 s: 16 A
 Make-and-carry for 0.5 s: 30 A

Binary output (BO1)
 Number of outputs: 1
 Rated voltage: +24 V DC

Binary inputs (BI1, BI2)
 Number of inputs: 2
 Threshold voltage: 24 V DC
 Rated voltage: 250 V

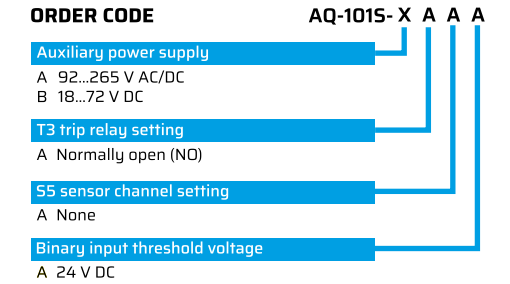
Power supply
 Auxiliary power supply: 92...265 V AC/DC
 Auxiliary power supply: 18...72 V DC (optional)

HMI

- 12 indication LEDs
- Multifunction push button (SET)
- Autoconfiguration
- Indication reset
- System check

SELF-SUPERVISION

- Complete system self-supervision:
 - Internal functions (configurations and device health)
- External connections (binary inputs and arc sensors)



AQ-101S Point sensor unit with extended I/O



AQ-101S 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 that sources the fault current. AQ-101S acts as a sub-unit to an AQ-110P unit in an AQ 100 arc protection system. It can also function as a standalone unit in light-only systems.

AQ-101S has an extended I/O ability to receive status information from a bay disconnector switch, which the special arc scheme for double busbar installation requires. The complete system self-supervision function of AQ-101S provides the highest level of dependability by continuously monitoring all internal system functions as well as external connections.

HIGHLIGHTS:

- É Has an extended I/O for double busbar installation.
- É Supports standard hardwiring practices for communication between units.
- É Has a superior isolation level against external disturbances – tested at the highest EMC classes.

PROTECTION

- Light only
- Light and pressure
- Circuit breaker failure protection (50BF/52BF)
- Total trip time: 7 ms

APPLICABLE SENSORS

- AQ-01 light point sensor
- AQ-02 light and pressure point sensor

I/O

Trip relays (T1, T2, T3)
 Number: 2 NO + 1 NC or 3 NO
 Rated voltage: 250 V AC/DC
 Continuous carry: 5 A
 Make-and-carry for 3 s: 16 A
 Make-and-carry for 0.5 s: 30 A

Binary outputs (BO1, BO2, BO3)
 Number of outputs: 3
 Rated voltage: +24 V DC

Binary inputs (BI1, BI2, BI3, BI4, BI5, BI6)
 Number of inputs: 6
 Threshold voltage: 24 V DC
 Rated voltage: 250 V

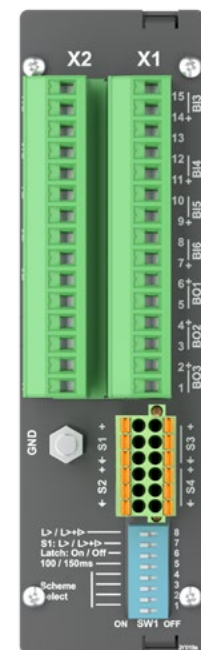
Power supply
 Auxiliary power supply: 92...265 V AC/DC
 Auxiliary power supply: 18...72 V DC (optional)

HMI

- 17 indication LEDs
- Multifunction push button (SET)
- Autoconfiguration
- Indication reset
- System check

SELF-SUPERVISION

- Complete system self-supervision:
 - Internal functions (configurations and device health)
- External connections (binary inputs and arc sensors)



AQ-101S rear view