ARC FAULT DETECTOR

Arc flash protection

The AP900 Series offers a complete solution to arc flash protection.

The AP900 is designed utilising the most modern technology with a focus on simplicity while maintaining both flexibility and function. It is built to meet the growing demands of both LV and MV switchgear and controlgear applications ranging from basic stand-alone to more complex system solutions.

This range is designed for the protection of all types of Industrial, Railway, Generation and Distribution networks.

- Staff safety
- Cost effectiveness
- Flexibility
- Reliability

Protection & Control ice

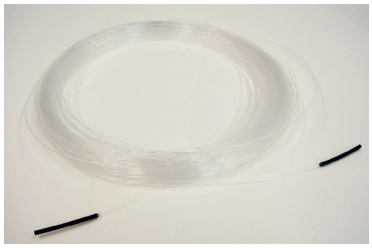
AP900 SERIES FEATURES

Features	AP901	AP902	AP910F	AP910P
Wide range power supply (18-72Vdc or 80-265Vac/dc)	✓	✓	✓	✓
Mounting	Panel/rack	Panel/rack	Panel/rack	Panel/rack
3 phases and residual current detection (1/5A)	-	-	✓	✓
Max number of point sensors	12	-	-	12
Max number of fibre loop sensors	1 (option)	3	3	1 (option)
High Speed Outputs (2ms trip time)	-	-	2	2
Number of trip relays (7ms trip time)	4*	4*	4*	4*
System failure relay	1	1	1	1
Binary outputs (24Vdc)	1	1	1	1
Binary inputs (24/110/220Vdc)	2	2	2	2
Push button	✓	✓	✓	✓
Non-volatile memory	✓	✓	✓	✓
Indication LEDs	12	11	19	20
Applicable Sensors				
AS01 light point sensor unit (8,000 lux)	✓	-	-	✓
AS02 light and pressure point sensor unit (8,000 lux - 0.2 bar above ambient pressure)	✓	-	-	✓
AS06 plastic fibre optic loop sensor	✓ (option)	✓	✓	✓ (option)
AS07 glass fibre optic loop sensor	✓ (option)	✓	✓	✓ (option)

* Optionally one normally closed electronic lock-out trip relay available

ARC SENSORS

AS01 or AS02



AS06

AS07

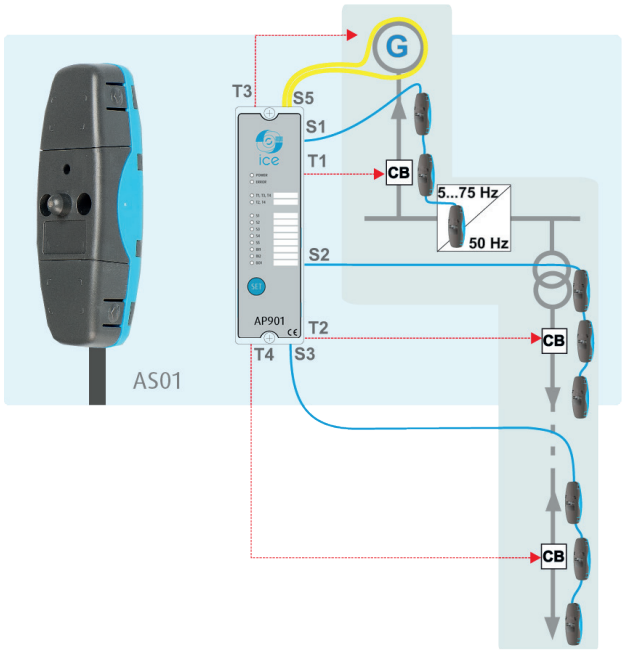
AP900 series provides choice of different types of arc sensors to be utilised in different units and different switchgear types according to specific application requirements.

Available sensor types are arc light point sensors and arc light fibre optic loop sensors.

Arc light point sensors are typically installed in metal clad compartments providing quick accurate location of the faulted area.

Arc light fibre loop sensors are installed typically to cover a wider protected area with one fibre when there is no need to accurately locate a fault.

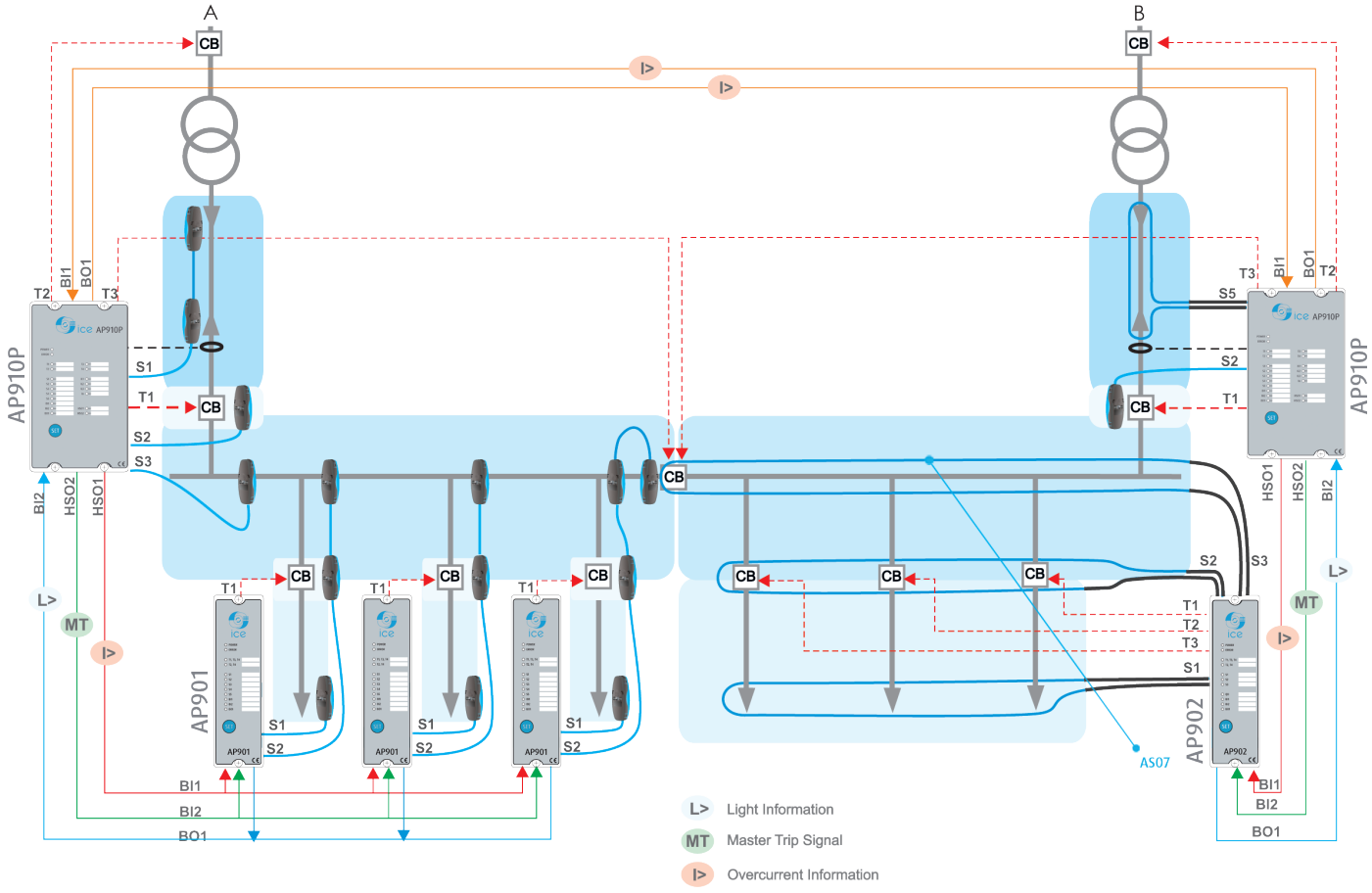
STAND-ALONE APPLICATION EXAMPLE



Any AP900 unit can be used as stand-alone arc protection relay.
AP901 provides complete wind power turbine arc protection.

The AS01 sensor comes as a standard with 8,000 Lux activation level with detection radius of 180 degrees and is IP 61 and vibration rated.
Typically one AS01 sensor is installed in each closed compartment. A maximum of 3 sensors can be connected in series.
Plug-in type cable connectors enable quick installation and reduce cost.

SYSTEM APPLICATION EXAMPLE



AP900 units can be flexibly applied in a system to even most complex switchgear layouts providing fully or partly selective tripping. The use of Standard Arc Schemes guarantees smooth project implementation.

AS07 is an industrial grade flexible glass fiber loop sensor. It has a fixed 8,000 Lux activation level with detection radius of 360 degrees.

CHARACTERISTICS & BENEFITS

Staff safety
- Fast trip time (2ms)
- Protect and avoid injury to employees
- Improve safety
- Can save human lives

Cost effectiveness
- Fast installation and commissioning time
- Quick install of sensors and wires
- Use of standard cables for interconnection and sensor wiring
- Limits damage to equipment

Flexibility
- Easy adaptation to any switchgear and trip scheme
- AP900 Standard Arc Scheme approach for fast engineering and simple setting
- Auto-configuration feature with one push-button operation
- Variety of arc sensors available

Reliability
- Superior insulation level for external disturbances - tested at the highest EMC classes
- 3 phases and residual current detection in addition to sensors
- Hard-wiring used for communication between units

SERVICE OFFER

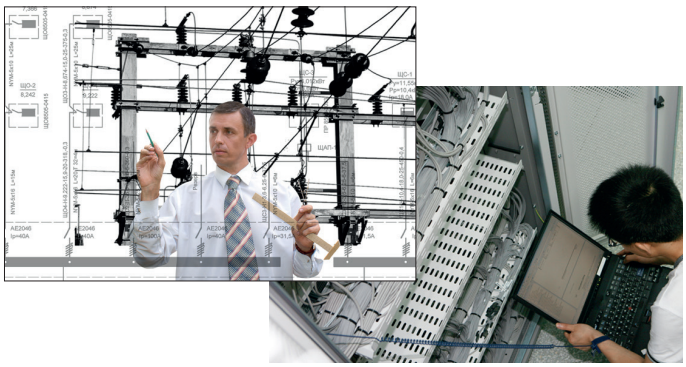
Cultivating human competence is the most effective way of driving the performance of your business, improving staff retention and ensuring the safety of your installations.

In our training centre or on a customer's site, we offer you a full range of content to meet the needs of training in the field of electrical protection and arc protection.

Optimising the use of electricity in an increasingly competitive market, while ensuring the protection of personnel and equipment, is one of the major challenges facing all businesses.

Our studies and applications department will assist you at each stage of your projects:

- Definition of a protection plan according to the mode of operation
- Updating of your protection plan when your existing network is updated
- Execution of ArcFlash studies
- Simulation and calculation tools: SKM Power*Tools®



Right from commissioning and during the entire duration of the life of the installation, we offer you customised assistance within your preventive or reactive maintenance programmes.

If you want to renovate your facilities, our installation teams are your ideal partner.

The support of our team of specialists allows you to maximise the availability and guarantee the proper functioning of your installations.

Our technicians and engineers operate according to your needs in accordance with maintenance contracts or in answer to ad hoc requests.

The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.

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