

# Communication module for Arc Guard System™ Remote monitoring of arc flash protection devices

ABB is a leader in electrical safety with the TVOC-2 arc guard system providing an unrivaled optical arc mitigation device with SIL-2 safety certification. The plug-in communication module provides operators real time status updates and instant information regarding the location of any arcs.



## Safety and protection

### Saving lives and minimizing damage to equipment

With a market-leading reaction time of under 1 ms, TVOC-2 is already the fastest, most reliable arc guard solution available on the market. By adding this communication module, information regarding any trip travels faster, reaching the right people sooner.



## Continuous operation

### Keeping the business running

An arc flash accident can have a catastrophic effect on equipment and lead to outages. The TVOC-2 detects the light from an arc flash and, together with the installed breaker, cutting the current feeding the arc extremely quickly, minimizing disruption of the system.



## Easy to install

### Factory calibrated sensors

Configuration of the TVOC-2 is done in minutes and with the HMI verifying every setting done, it is extremely unlikely that mistakes will happen during the configuration.

With the possibility to accommodate up to 30 sensors, the system is highly flexible and can grow with any system.

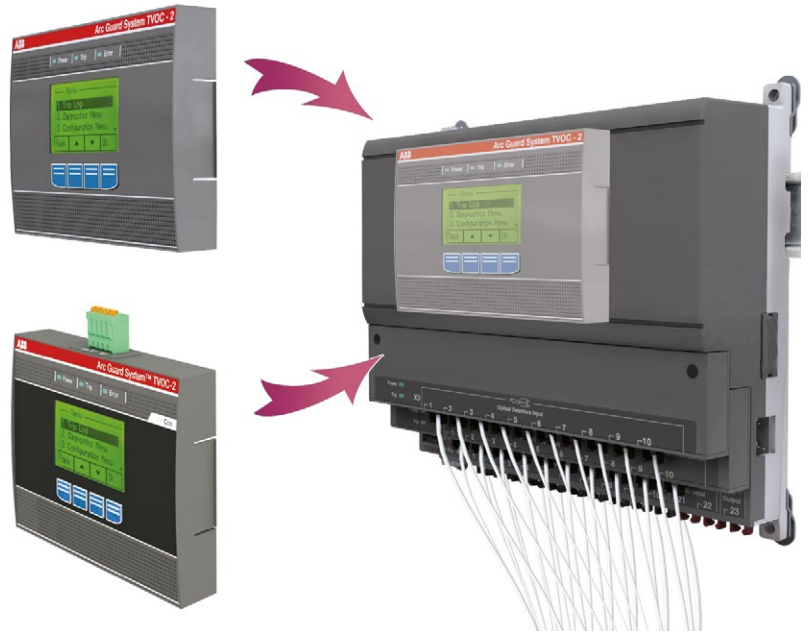
# Arc guard system with communication module

## Monitor your installation, anytime and anywhere

The TVOC-2 system can be equipped with up to 30 optical sensors, enabling a single unit to cover multiple switchboard cabinets. Once installed, the system is able to detect arc initiation and, in less than one millisecond, send a signal to an Emax 2 circuit breaker to open. This makes it the fastest and the most effective available system at reducing risks to personnel and equipment.

Benefit from Arc Guard System™ TVOC-2 flexibility with:

- DIN rail or wall-mounted possibilities
- HMI/COM Module can be mounted on the cabinet door and / or on the main unit for easy access
- All connections accessible from front
- Pre calibrated optical sensors.



### Ordering details

Description	Type	Order code
<b>Arc Monitor</b> including one HMI and door mounting accessories	TVOC-2-240	1SFA664001R1001
	TVOC-2-48	1SFA664001R1002
including one COM Module and door mounting accessories	TVOC-2-240-C	1SFA664001R1003
	TVOC-2-48-C	1SFA664001R1004
<b>Extension</b> 10 optical inputs	TVOC-2-E1	1SFA664002R1001
	10 optical inputs for cable TVOC-2-DP60 only	TVOC-2-E3
<b>HMI (Human machine interface)</b> additional	TVOC-2-H1	1SFA664002R1005
<b>COM Module</b> with communication interface (Modbus RTU) and door mounting accessories	TVOC-2-COM	1SFA664002R4001

Detectors, cable length	Type	Order code
1 m	TVOC-2-DP1	1SFA664003R1010
2 m	TVOC-2-DP2	1SFA664003R1020
4 m	TVOC-2-DP4	1SFA664003R1040
6 m	TVOC-2-DP6	1SFA664003R1060
8 m	TVOC-2-DP8	1SFA664003R1080
10 m	TVOC-2-DP10	1SFA664003R1100
15 m	TVOC-2-DP15	1SFA664003R1150
20 m	TVOC-2-DP20	1SFA664003R1200
25 m	TVOC-2-DP25	1SFA664003R1250
30 m	TVOC-2-DP30	1SFA664003R1300
60 m (1)	TVOC-2-DP60	1SFA664003R3600

1) Only to be used with TVOC-2-E3

### Characteristics

#### Optical inputs and outputs

<b>Optical detectors</b>	10 inputs on Arc Monitor, 10 inputs on Extension unit X2 (optional), 10 inputs on Extension unit X3 (optional)
<b>Current signal from CSU</b>	2 inputs: X1.21, X1.22 (optical), 1 output: X1.23 (optical)
<b>High-speed solid-state IGBT tripping contacts</b>	3 N.O. contacts (K4, K5, K6)
<b>Signal relay usage</b>	2 C.O. gold-plated contacts (K2, K3)
<b>Internal relay fault signal</b>	1 C.O. gold-plated contact (K1)
<b>Reaction time from light detection to trip</b>	< 1 ms
<b>COM module</b>	Modbus RTU protocol
<b>Supply voltage</b>	TVOC-2-240: 100 ... 240 V AC, 50/60 Hz and 100 ... 250 V DC TVOC-2-48: 24 ... 48 V DC (possibility to connect two power supplies for redundancy (common minus))

For more information please contact:

**ABB AB**  
**Electrification Products**  
 Protection & Connection  
 Motorgänd 20  
 SE-721 61 Västerås / Sweden



<http://new.abb.com/low-voltage/products/arc-guard>

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