AFT Arc Detectors

Our arc detectors systems **ARC1** and **ARC4** are specially designed to effectively protect high-power RF equipment from damage due to unwanted electrical breakdown and arcing. They offer fast and highly sensitive light detection using wide-spectrum photo diodes.

Connected by low-loss fiber optical cables to compact FSMA-type viewports, AFT´s arc detectors allow easy installation into coaxial lines and rectangular waveguides up to X band frequencies. The optical fiber connection separates the detector electronics from the high-power RF systems to protect. Since those are often operated in radiation environments, the local separation helps to effectively avoid spurious arc trips and breakdown of the electronics.

The second generation **ARC1 2.0** and **ARC4 2.0** retain the main interfaces and the signalling of its predecessors, while being upgraded with improved optical sensitivity (< 1 Lux), a photo voltage monitor, a more user friendly keypad interface, and a higher degree of customization. The compact ARC1 box is now also available as a dual channel version.

The modular ARC4 still provides up to 16 detector channels, yet comes with extended global interlock programming features, and an optional LAN web browser interface.

Accessories, such as multi-mode fiber optic cables and radiation resistant plastic cables, as well as a variety of arc viewports complete our ARC portfolio.

ARC1 2.0

- New compact box with keypad for test, reset and device configuration

- Very high light sensitivity < 1 Lux

- Fast arc response time < 2µs

- 1x or 2x FSMA input for fiber optic cable

- Optical and electrical interlock signal

- Optical test signal

- Photo detector voltage monitor

- Option: adjustable light sensitivity and auto-reset time via USB interface

ARC4 2.0

- New 19" chassis with keypad for test, reset, operation and device configuration

- Very high light sensitivity < 1 Lux

- Fast arc response time < 2µs

- Up to 16 detector modules with FSMA input

- System interface modules with up to 4 logic programmable interlocks

- Optical test signals

- Photo detector voltage monitor

- Options: USB interface and Web browser access via Ethernet and LAN interface

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Catalog of ARC Products

Part No.	Description

ARC1 2.0

Part No.	Description
A1-2-SC-00	ARC1 - Single Channel Arc Detector 2.0
A1-2-DC-00	ARC1 - Dual Channel Arc Detector 2.0
A1-2-USB-00	ARC1 - USB Interface Access 2.0 (Option)

ARC4 2.0

A4-2-SYS-00 - **X_D** - **X_I** - **X_T**   Ordering code for customized ARC4 system

Variable	Description		Value Options
X_D	No. of arc detector modules	A4-2-ADM-00	16 max.
X_I	No. of system interface modules	A4-2-SIM-0x	2 max.
X_T	No. of optical test modules	A4-2-OTM-00	16 - X_D max.

Definition of X_I

X_I	No. of A4-2-SIM-00	No. of A4-2-SIM-01
00	0	0
01	1	0
02	2	0
10	0	1
20	0	2
11	1	1

Part No.	Description
A4-2-USB-00	ARC4 - USB Interface Access 2.0 (Option)
A4-2-LAN-01	ARC4 - LAN Web Interface 2.0 incl. USB Access (Option)

Fiber Optic Cables

Part No.	Description	Length
MFOC-LKS-025	Multimode Fiber Optic Cable, 2x FSMA, low loss	2.5 m
MFOC-LKS-050	Multimode Fiber Optic Cable, 2x FSMA, low loss	5 m
MFOC-LKS-100	Multimode Fiber Optic Cable, 2x FSMA, low loss	10 m
MFOC-LKS-150	Multimode Fiber Optic Cable, 2x FSMA, low loss	15 m
MFOC-LKS-200	Multimode Fiber Optic Cable, 2x FSMA, low loss	20 m
MFOC-LKS-300	Multimode Fiber Optic Cable, 2x FSMA, low loss	30 m
MFOC-MK2-050	Multimode Fiber Optic Cable, 2x FSMA, Vacuum	5 m
MFOC-MK2-100	Multimode Fiber Optic Cable, 2x FSMA, Vacuum	10 m
PFOC-SH-025	Plastic Fiber Optic Cable, 2x FSMA, radiation hard	2.5 m
PFOC-SH-050	Plastic Fiber Optic Cable, 2x FSMA, radiation hard	5 m
PFOC-SH-100	Plastic Fiber Optic Cable, 2x FSMA, radiation hard	10 m

PFOC-SH-200	Plastic Fiber Optic Cable, 2x FSMA, radiation hard	20 m
PFOC-SH-300	Plastic Fiber Optic Cable, 2x FSMA, radiation hard	30 m

Customized cable lengths are available on request.

Fiber Optic Cable Accessories

FSMACI02	FSMA Cable Interconnector (for cable cascading)

Arc Viewports

AVPN-02	Arc Viewport FSMA flanged (Set of 2 pcs.)
AVPN-03	Arc Viewport FSMA flanged (2-hole), (Set of 2 pcs.)
AVPP-02	Arc Viewport FSMA pressure tight M12x1, (Set of 2 pcs.)
AVPT-01	Arc Viewport with Test Port, 2x FSMA
AVPT-CF16-01	Arc Viewport CF16 with Test Port, 2x FSMA

For product details see data sheet of particular part no. on www.aft-microwave.com.

Please contact us on sales@aft-microwave.com for your specific request.