

HFD-FO-PRO Series

Profibus Self-healing Ring Fiber Optic Modem



Product Description

The HFD series Profibus Multi-Drop Self-Healing Ring Transmission series products provide an optical self-healing ring network for Profibus data interfaces over two multimode or single mode optical fibers. The system offers maximum reliability as it can recover simultaneous faults or failures in two different locations and has contact closure outputs on each module to clearly indicate any fault location. The self-healing ring consists of two opposing data paths, ring A and ring B. Under normal operation only the primary path (ring A) is used for data transfer. If a fault is detected, the data is transferred to the secondary path (ring B) without interruption to the communications network.

The series is available in wall mount, DIN rail or 2U chassis card.

Electromagnetic compatibility (EMC)

Limit class B (EN 55022)

EN 61000-4-2

EN 61000-4-3)

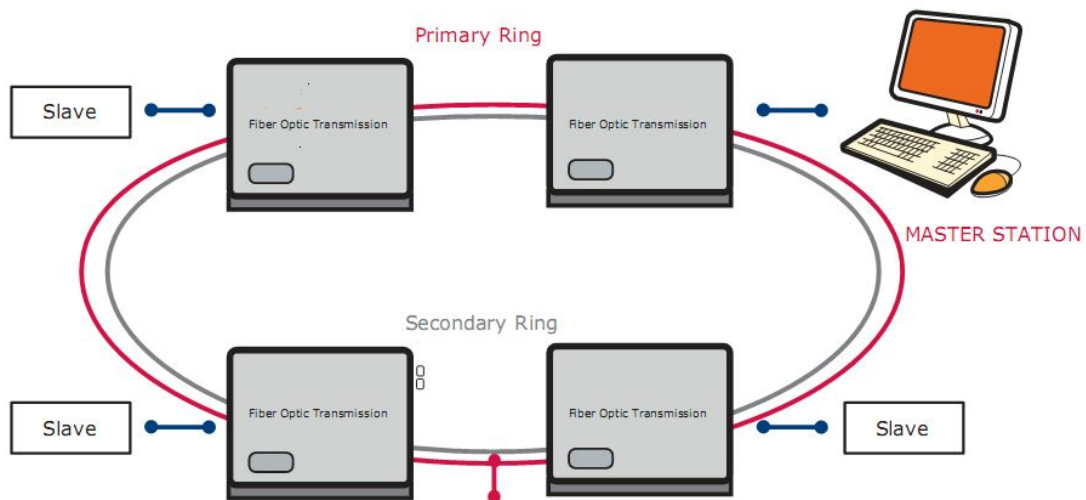
Burst: On power supply lines and shielded RS 485 bus lines: ± 2 kV (EN 61000-4-4)

Surge: Power lines: ± 1 kV symmetrical, Shielded RS 485 lines: ± 2 kV asymmetrical (EN 61000-4-5)

Product Features

- ◆ Point to point/Multi-drop/Redundant ring topologies
- ◆ Multimode and single mode solutions
- ◆ Single or dual fiber solution
- ◆ Single or dual power supply solution
- ◆ Wall mount, rack or chassis configurations
- ◆ 5 years warranty

Typical System Configuration



If primary fiber is lost, data is passed onto the Secondary ring to maintain the ring integrity

- Data Cable (depends on data type)
- Multimode or singlemode fiber

Specifications:

Data	
Data Formats	Siemens Profibus RS-485
Data Rate	0~1.5Mb/3Mb/6Mb/12Mb
Bit Error Rate	<1 x 10 ⁻¹²
Connectors	
Data	DB9 or Terminal
Fiber	ST, SC or FC (ST fitted as standard)
Environmental	
Operating Temperature	-30C---+70C
Storage Temperature	-40C---+90C
Operating Humidity	0-95%
MTBF	>100,000 Hours
Optical	
Fiber	Multi mode or Single mode
Wavelength	MM:850nm, SM:1310nm
Number of fibers	2 or 4(WDM, Bi-Di)
POWER	
Power Input	AC 220V 110v or DC+110V,+5V,+12V,+24V,+48V Option
Mechanical	
Dimensions	43(W)×88.5(D)×124.5(H)mm DIN Rail

Model Selection:

Model Number	Description	Fiber No.	Fiber Mode	Fiber Connector
HFD-FO-PRO-R2M	Redundant Ring Link,Dual Fiber(BI-DI), 2km	2	Multi Mode	ST/SC/FC
HFD-FO-PRO-R4M	Redundant Ring Link,4 Fiber, 2km	4	Multi Mode	ST/SC/FC
HFD-FO-PRO-R2S	Redundant Ring,Dual Fiber(BI-DI), 20km	2	Single Mode	ST/SC/FC
HFD-FO-PRO-R4S	Redundant Ring,4 Fiber, 20km	4	Single Mode	ST/SC/FC

