

# Fiber-Optic Systems - Analog Receivers

## Model FO-SR-x

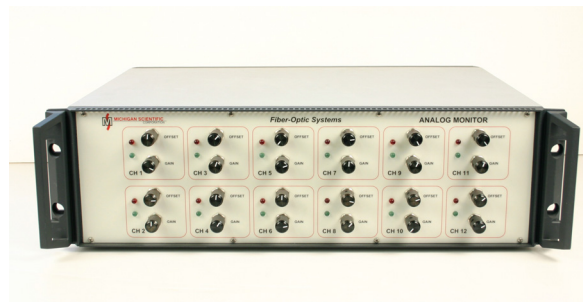
- Fiber-Optic Receiver used with models *FO-ST* and *FO-DM* Transmitters
- Automotive voltage output levels of  $\pm 16$  VDC at bandwidth of DC to 20KHz
- 2 or 4-channel bench-top and 6 to 12-channel 19" bench-top/rack-mount Receivers
- Adjustable gain and offset



Model FO-SR-2  
(2-channel bench-top enclosure)



Model FO-SR-4  
(4-channel bench-top enclosure)



Model FO-SR-12  
(12-channel rack-mount enclosure)

## Description

The MSC models *FO-SR-x* are versatile Receivers that provide a means to monitor the electrical signals from remote sources in high electromagnetic fields or anechoic chambers via a fiber-optic link to low field areas. BNC connectors provide automotive voltage output levels of  $\pm 16$ VDC.

Receivers are available in 2, 4 channel bench-top and 6, 8, 10 or 12-channel bench-top and 12-channel 19" 3RU Euro-Rack for bench-top or rack mounting.

The *FO-SR-x* receivers use 820 nm wavelength multimode 62.5/125  $\mu\text{m}$ , 100/140  $\mu\text{m}$  or step-index 200  $\mu\text{m}$  HCS fiber cables. SMA type 905 connectors are standard.

8500 Ance Road  
Charlevoix, MI 49720  
Tel: 231-547-5511  
Fax: 231-547-7070

**MICHIGAN SCIENTIFIC**  
<http://www.michsci.com>  
Email: [mscinfo@michsci.com](mailto:mscinfo@michsci.com)  
corporation

321 East Huron Street  
Milford, MI 48381  
Tel: 248-685-3939  
Fax: 248-684-5406

Rev: 4/28/12

# Fiber-Optic Systems - Analog Receivers

## SPECIFICATIONS

PARAMETER	SPECIFICATIONS		
<b>SYSTEM CHARACTERISTICS AND PERFORMANCE</b>			
<b>GENERAL</b>			
Model	<b>FO-SR-02</b>	<b>FO-SR-04</b>	<b>FO-SR-XX</b>
Description	2-channel bench-top enclosure	4-channel bench-top enclosure	12-channel Euro-rack bench-top or rack-mount enclosure
Channels	2	4	6 to 12
Bandwidth (3 dB)	DC to 20 kHz		
Manual adjustment			
Offset	±15% of range		
Gain	±15% of range		
DC Offset (System)	Within ±16mV, ±32mV, & ±48mV depending on range (after 1/2 hr warm-up)		
Gain Accuracy (System)	±2% proportional to range over the operating temperature (does not include Offset Error)		
Signal/Noise	> 60 dB		
Crosstalk	> 60 dB		
Power Source	120 ±15 VAC, 47 to 420 Hz (Other receiver power options available.)		
<b>PHYSICAL</b>			
Dimensions (L x W x H)	9x7.25x3.25 in. (229x184x83 mm)		16x19x5.13 in. (406x483x130 mm)
Weight	4.5 lb (2 kg)	5 lb. (2.2 kg)	15.5 lb. (7 kg)
Mechanical	1 PCB card	2 PCB cards	3 to 6 type 3RU Eurocards
Input Fiber Connector	SMA type 905 (Standard)		
Output Connector	BNC		
<b>ELECTRICAL</b>			
Output Voltage	±16V DC		
Output Scaling	Transmitter Range Dependant		
TX Output Scaling Factor			
TX Range 1	1:1 (16V into transmitter = 16V out of receiver)		
TX Range 2	2:1 (32V into transmitter = 16V out of receiver)		
TX Range 3	3:1 (48V into transmitter = 16V out of receiver)		
TX Range 4	customer specified optional		
Output Impedance	1 kΩ, 16mA max		
Controls	Offset & Gain, 10 turn potentiometers		
Status Indicators	Red & Green LEDs		
AC Power	110-137 VAC 47-420 Hz		
Opt. AC Power "J"	90-110 VAC 50-440 Hz		
Opt. AC Power "K"	200-252 VAC 50-440 Hz		
Opt. AC Power "UK"	216-265 V		
<b>ENVIRONMENTAL</b>			
Operating Temperature	32° to +158°F (0° to +70°C)		
Operating Humidity	95% R.H. max. non-condensing		

8500 Ance Road  
 Charlevoix, MI 49720  
 Tel: 231-547-5511  
 Fax: 231-547-7070  
 Rev: 4/28/12

**MICHIGAN SCIENTIFIC**  
 corporation

<http://www.michsci.com>  
 Email: [mcsinfo@michsci.com](mailto:mcsinfo@michsci.com)

321 East Huron Street  
 Milford, MI 48381  
 Tel: 248-685-3939  
 Fax: 248-684-5406