

# SERIES 100

## POWER MONITORS FOR POLARIZATION MAINTAINING FIBER Integral Optical Tap and Photodiode

**GR-468**  
Telcordia Qualified



**EigenLight's PM Series 100 Inline Power Monitors** are used for monitoring optical power in polarization maintaining fiber. By combining a stable optical tap and PIN photodiode in a miniature, hermetic package, these PM devices offer cost and performance advantages over discrete PM coupler and photodiode combinations.

### FEATURES

- Extinction Ratio >23 dB
- Low Insertion loss
- Return loss >70 dB
- High Power capability
- Available fiber types: Panda 1550, 1310, 980
- Operating temperature range -5 C to +75C

### APPLICATIONS

- Optical Transmitters
- Fiber Lasers
- Test Instrumentation
- Fiber Sensors

### SPECIFICATIONS<sup>1</sup>

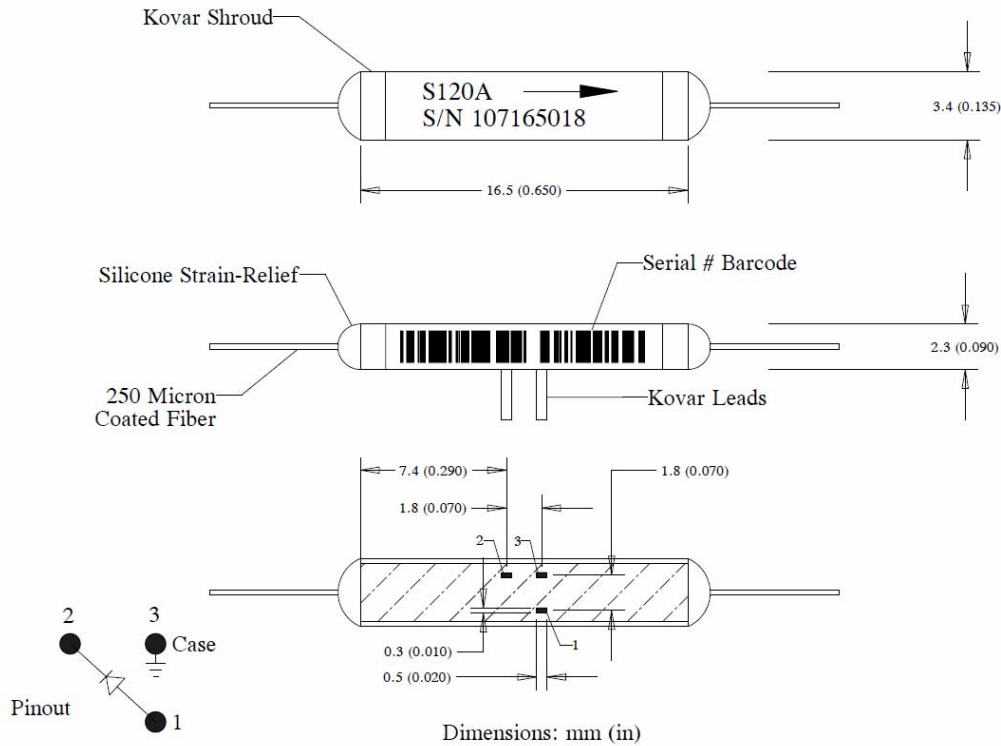
PARAMETER	SR10X	SR12X	SR14X	SR16X
Insertion Loss	<0.4 dB	<0.2 dB	<0.1 dB	<0.05 dB
Responsivity <sup>2</sup> (mA/Watt) X=6,7	35 – 60 20 – 40	15 – 35 10 - 20	5 – 15 3 - 10	1 – 5 0.5 - 3
Extinction Ratio (dB)	>23	>23	>23	>23
Optical Return Loss (dB)	>70	>70	>70	>70
Directivity <sup>3</sup> (dB)	>30	>20	>15	>10
Wavelength Range x = 2,3	1540-1610 nm			
x = 4,5	1290-1380 nm			
x = 6,7	970-1100 nm			
Max. Optical Power (dBm)	+16	+18	+22	+26
Fiber Type <sup>4</sup>	Panda	Panda	Panda	Panda
Dark Current @ -5 V, 23 C	<1 nA			
3 dB Bandwidth @ -5 V (MHz)	>200			
Capacitance (pF)	<10			
Max. Forward Current (mA)	10			
Max. Reverse Current (mA)	5			
Max. Reverse Voltage (V)	10			
Operating Temperature	-5°C to +75°C			
Storage Temperature	-40°C to +85°C			

1. Custom specifications available upon request
2. Ratio of photocurrent to optical power in fiber (measured at the output)
3. Sensitivity to forward directed light relative to backward directed light.
4. Other fiber types available

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## Integral Optical Tap and Photodiode

### Dimensional Specifications

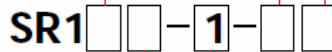


### Ordering Information

**Responsivity (mA/Watt)**

- 0 = 35-60, 20-40 (PM 980)
- 2 = 15-35, 10-20 (PM980)
- 4 = 5-15, 3-10 (PM980)
- 6 = 1-5, 0.5-3 (PM980)

**Connector Type**  
See Table



**Fiber Type**

- 2 = Panda 1550 250 micron
- 3 = Panda 1550 900 micron loose tube
- 4 = Panda 1310 250 micron
- 5 = Panda 1310 900 micron loose tube
- 6 = Panda 980 250 micron
- 7 = Panda 980 900 micron loose tube

**Fiber Pigtail Length**

1 Meter Standard

### CONNECTOR TABLE<sup>1</sup>

Code	Connector Type
10	FC
15	FC/APC

1. Slow-axis alignment standard

