

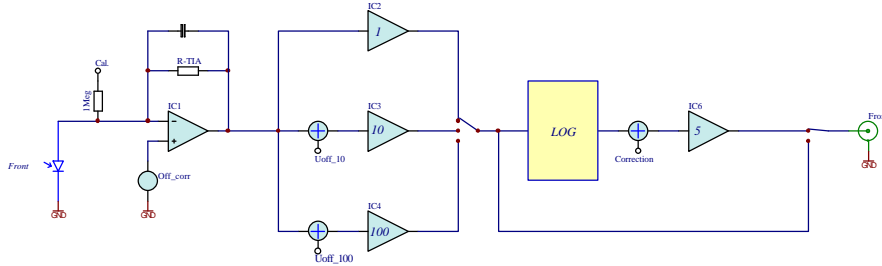


**Description**

The **PyroLog** module is a signal conditioning unit, providing analog voltage outputs for two channels of optical high speed temperature sensors.

After conditioning, data can be acquired by commercial of the shelf DAQ-products such as NI's MIO-boards with resolutions up to 16Bit and 1MHz sampling rates.

The module eliminates the highly nonlinear conversion characteristics from received infrared radiation to output voltage by means of a high speed, ultra precision logarithmic amplifier.



**Technical Data**

**Optical Input**

Centre wavelength (CWL): 1500nm  
 Half bandwidth (HBW): 150nm  
 Measurement range: 350°C to 1200°C

**Analog Output**

Output voltage: 0 to 12V (short circuit proof)  
 Output resistance: 1kOhm  
 Gain: 1, 10, 100 (selectable by jumper)  
 Output signal: logarithmic or linear (selectable by jumper)  
 Transmission error: < 1.5% relative  
 Cut off frequency (-3dB): 500kHz, min. 100kHz, depending on feedback resistor

**General**

No of channels: 2 per module (max 8 modules per 19"-rack)  
 Ambient temperature range: 5 to +50°C (41..122°F)  
 Supply voltage: 15VDC  
 Power consumption: max. 4W @ 15V  
 Indicators: LED for signal validation  
 Dimensions: 3U x 160mm x 40mm  
 Optical input connectors: SMA female  
 Output connectors: BNC

**Settings**

LOG-Mode:	Set the jumper to „LOG“ position	Jumper
	Maximum output voltage: 8V	Lin LOG
Lin-Mode:	Set the jumper to „Lin“ position	Jumper
	Maximum output voltage: 12V	Lin LOG
Gain:	Set the jumper „Gain“ to the desired Position (1, 10, or 100)	
Signal validation:	Green: System ready	
	Red: Signal overflow	
	Orange: Amplifier in saturation; change gain settings	

**Accessories**

- Portable metal case for one PyroLog module, including external 230VAC power supply	Part-No:	PI-348-100
- 3HE/19"-rack for max. 8 PyroLog modules, including integrated 230VAC power supply		PI-348-101
- Fiber optical sensor		on request
- Fiber optical prolongation cable, lenght 2m to 30m		on request
- 16-channel PCI-data acquisition board 12Bit, 500kS/250kS		NI-6040
- 16-channel PCI-data acquisition board 12Bit, 1.2MS		NI-6070
- 16-channel PCI-data acquisition board 16Bit, 200kS		NI-6014
- 4-channel simultaneous sampling PCI-data acquisition board 16Bit, 800kS		NI-6120
- Data acquisition software		on request