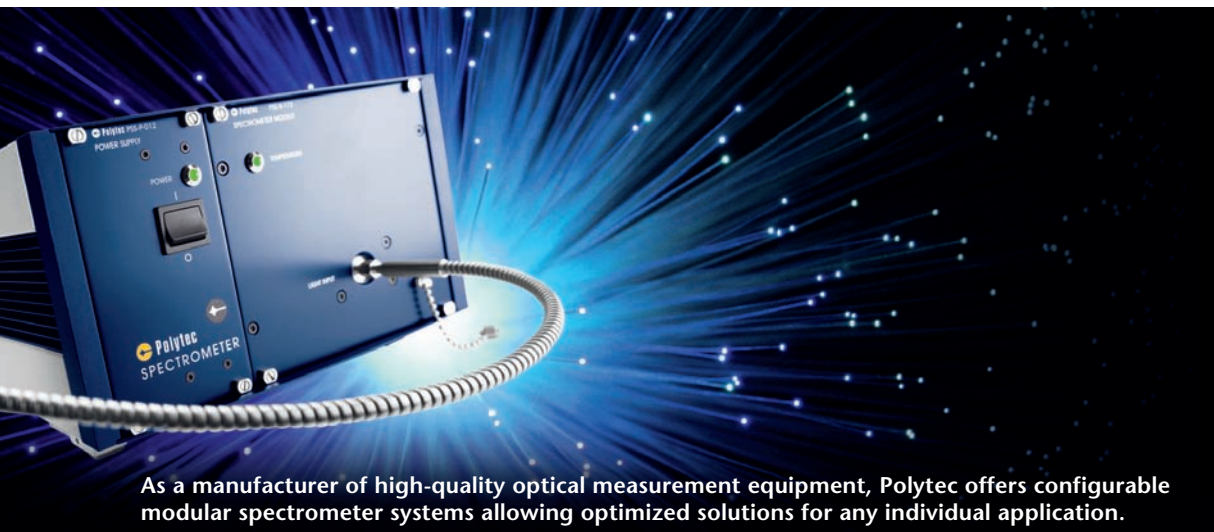


# PSS Spectrometers



As a manufacturer of high-quality optical measurement equipment, Polytec offers configurable modular spectrometer systems allowing optimized solutions for any individual application.

## Polytec Spectrometer-Systems

- Sensor Heads
- Spectrometers
- Software

## Precision spectrometers designed to cover your required spectral ranges: Reliable in-process and laboratory measurements

PSS spectrometers offer an optimal solution for NIR process analytics. Based on diode array technology combined with superior transmission grating design, PSS spectrometers are used for fast and reliable data acquisition. Flexible integration in various measurement scenarios is enabled through the use of fiber coupled components.

### Features:

- Standardized spectral ranges between 550 nm and 2500 nm
- Innovative transmission grating design
- High measurement rate

- Superior sensitivity and long term stability
- Uniform optical resolution at the theoretical limit
- Extremely low scattered light levels
- SMA 905 fiber connectors
- Ethernet interface



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### Spectral Properties:

Model	Range	Detector	Pixels	Resolution
PSS 1050	550 – 1050 nm	Si	512	<3.6 nm or <5.4 nm
PSS 1720	850 – 1650 nm	InGaAs	256	<6.4 nm or <9.5 nm
PSS 1750	850 – 1650 nm	InGaAs	512	<3.2 nm or <4.8 nm
PSS 2120	1100 – 2100 nm	InGaAs	256	<7.9 nm or <11.9 nm
PSS 2220	1200 – 2200 nm	InGaAs	256	<7.9 nm or <11.9 nm
PSS 2520	1300 – 2500 nm	InGaAs	256	<9.5 nm or <14.2 nm

### Housing and Power Supply

PSS Spectrometers are available with standard 19" plug-in housing with 110 – 240 VAC power supply for industrial cabinets. The small ½ 19" housing with integrated 10 – 30 VDC actively stabilized power supply is ideal for e.g. mobile applications.

## PSS-M Polychromator

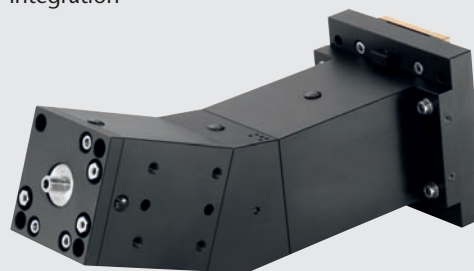
The core component of our NIR spectrometer systems is the PSS-M Polychromator, developed and manufactured in-house. It is a perfect match for many OEM requirements and comes with outstanding engineering support.

#### Features:

- Transmission design setup for maximum sensitivity and extremely low scattered light (contrast ratio > 1:50000)
- Integrated shutter for dark signal measurement
- Uniform optical resolution at the theoretical limit
- Pre-aligned and supplied with wavelength calibration data ( $\Delta \lambda < 0.5 \text{ nm}$ )
- Prepared for use with various sensor electronics

#### Benefits:

- Superior sensitivity for short integration times and high spectra rates
- Tightly specified wavelength ranges
- Ideal for calibration transfer
- SMA connection for standard fibers
- Convenient electrical and mechanical integration



### Customized Solutions

Polytec provides customized OEM solutions for system suppliers with special needs regarding quality or price. These solutions are widely used in process, laboratory, or handheld applications.

- Consulting and feasibility studies for technical and commercial evaluation
- Optical design (spectral range, optical resolution, sensitivity etc.)
- Mechanical and electronic integration development
- Serial production

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