

NIRS XDS Process Analyzer – MicroBundle



Features and benefits

- Direct inline measurement yields real-time analysis and data availability in seconds
- Microbundle fiber optic interface optimized for process stream analysis: clear to opaque liquids, slurries, suspensions and powders
- 1 to 9 interdependent sampling points
- Fiber to analyzer connection via SMA fittings
- Robust industrial design for operation in harsh environments
- NEMA 4X / IP65 rated
- ATEX certification available for Zone 0, Zone 1, Zone 2

Near-Infrared Spectroscopy for process analysis

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The NIRS XDS Process Analyzer – MicroBundle provides the next generation of process analyzers for real-time analysis of industrial processes (production, quality control) across a wide range of industries. Non-destructive, accurate measurements are performed directly in the process line, granulator, dryer or reactor.

Process analyzers are used throughout the process stream to ensure optimum performance for widely varying samples. The 80-fiber count (40 illumination/40 collection fibers) allows for cost-effective analysis of sample types ranging from clear liquids to suspensions and solids. Configure the analyzer with a reflectance probe, an immersion probe or a transmission probe pair for an optimized interface to your particular sample type.

The XDS Process Analyzer – MicroBundle is available as a single point instrument or in a multiplexer configuration with which up to 9 sampling points can be measured sequentially. This economical means of performing remote measurements enables the analyzer to be installed in an unrestricted area, reducing installation and operation costs.

The patented, industrial design of XDS Process Analyzers supplies a new level of consistent, dependable and reliable instrument performance and analysis while operating in harsh industrial environments.

Monitoring with near-infrared (NIR) fits in well with Process Analytical Technology (PAT) initiatives as proposed by the FDA.



NIRS XDS Process Analyzer – MicroBundle

NIRS XDS Process Analyzer – MicroBundle Single Point/Multiplexer consists of the following items:

XDS Monochromator

- XDS NIR technology provides precise instrument matching and seamless calibration transfer, thanks to a state of the art digital encoder ensuring an accurate positioning of the grating at any point in time. An internal reference allows diagnostics of the performance without disturbing the sampling point.
- Spectral coverage: 800–2200 nm (extended InGaAs detector).
- Standard unit operation in environments 0–30 °C (32–86 °F).

XDS Accessory Kit

- Consists of a replacement lamp, 3 m (10 ft) network crossover cable, RJ-45 communications cable, assorted tools, and power supply fuses.

Optional multiplexer

- Up to 9 sample points can be measured sequentially when a multiplexer is used

NIRS XDS Process Analyzer – MicroBundle Manual

- Hardware description, technical specifications, installation instructions, instrument installation, maintenance

Micro Fiber Optic Bundles with SMA connection at the analyzer – up to 50 m

- Metal or nylon cladding available
- Chemical resistant sleeving (Kevlar®)
- 2 Mono-microbundles are necessary for transmission measurements
- 1 Double-microbundle is necessary for reflectance and transmittance measurements

Sample interfacing

- Interactance Reflectance Probe
- Interactance Immersion Probe
- Transmission Probe Pair with Lenses and Spacers
- Interactance Reflectance Probe with purge on collection tip
- Optimized Micro reflectance (45°) probe

Connection to process line

- Flanges
- Swagelok
- Sampling panels with recirculating loops

Software

Vision® Single-User Vision for Chemical / Pharmaceutical Analysis

- Spectral acquisition, method development and routine analysis software for chemical/pharmaceutical analysis. Provides single-user access to NIR instruments on a network (one copy of Vision per instrument). Pharmaceutical version is fully validatable and 21 CFR Part 11 compliant software.

Vision® Multi-User Vision for Chemical / Pharmaceutical Analysis

- All features of the single user version are available. In addition, the centralized database management feature for all spectral databases is provided. 5 workstation licenses included. Pharmaceutical version is fully validatable and 21 CFR Part 11 compliant software.

Environmental Options

Vortex cooling

- For environments 0–40 °C (32–104 °F)

A/C cooling

- For environments 0–51 °C (32–125 °F)

Shelters

- Industrial shelters available

Ex-Proof Options

Optical filter and power limiting board

- for all applications in Ex-Proof area

Purge and optical modem

- for instruments in Ex-Proof area

Shelters

- ATEX compliant shelters available

Process Communication Options

OPC

- USB or parallel port dongle

Digital Protocols

- MODBUS, PROFIBUS, etc.

VISION I/O Module

- Available as 8, 16, or 24 Analog Channels, 24 Digital Channels

Ordering information

Instruments

A629280110	NIRS XDS Process Analyzer – MicroBundle Single Point (with heatsink & fans)
A629280111	NIRS XDS Process Analyzer – MicroBundle Single Point (with air conditioning)
A629280112	NIRS XDS Process Analyzer – MicroBundle Single Point (with Vortex)
A629280120	NIRS XDS Process Analyzer – MicroBundle 4 channel Multiplexer (with heatsink & fans)
A629280121	NIRS XDS Process Analyzer – MicroBundle 4 channel Multiplexer (with air conditioning)
A629280122	NIRS XDS Process Analyzer – MicroBundle 4 channel Multiplexer (with Vortex)
A629280130	NIRS XDS Process Analyzer – MicroBundle 9 channel Multiplexer (with heatsink & fans)
A629280131	NIRS XDS Process Analyzer – MicroBundle 9 channel Multiplexer (with air conditioning)
A629280132	NIRS XDS Process Analyzer – MicroBundle 9 channel Multiplexer (with Vortex)

Software

A666069412	Vision 4.1
A666069413	Vision Pharma 4.1
A666069414	Vision Multi 4.1
A666069415	Vision Multi Pharma 4.1

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