

We DEVELOP

IN-LINE INFUSION MONITORING

Leading the way to fully automated composite processes

Sensor system for detection and localization of resin flow-front in dry fibre manufacturing processes (RTM, LRI)

Benefits

Ease of use

- Portable equipment (PF-16): quick to relocate
- Industrial embedded equipment (SF-16): integrated PC and monitor
- Intuitive result interpretation for operators
- Easy sensor handling and integration

Sensors

- Line sensors (1–3 m length) with 1 % length resolution
- Parallel evaluation of up to 16 sensors
- Evaluation of different sensor types with one device
- Different sensor types:
Tool-integrated and part-integrated
- Flexible sensor placement (e.g. following curves)

Customization

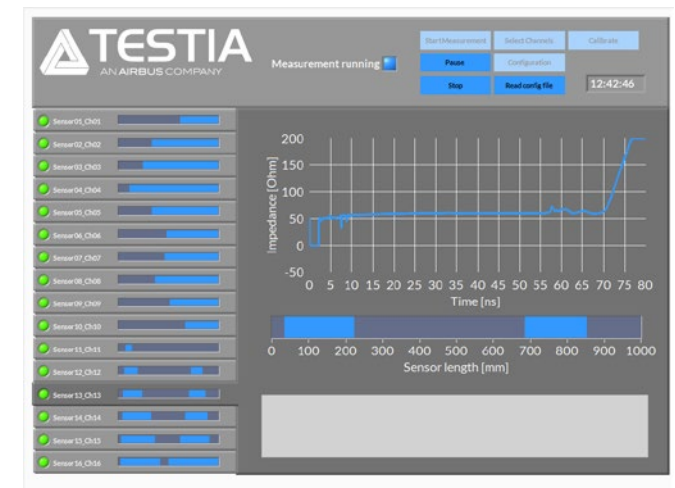
- Customized sensor solutions
- Data visualization in digital part models
- On-going development for structural health monitoring and cure monitoring

Process Integration

- Connectors for Resin-Transfer-Molding (RTM) and Liquid-Resin-Infusion (LRI) available
- Tool-integrated solution for glass fiber molds
- Interfaces for real-time data transfer
- Compatibility with all standard fibers and resins



PF-16 (portable equipment)



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Features

- Precise resin localisation along line sensors
- Real time monitoring
- 16 channels for parallel monitoring of resin behavior
- Intuitive user interface and visualization
- Solutions for different industries (e.g. aerospace, wind energy, construction)
- Enabler for process automation (e.g. online control of resin flow and distribution)

Technical specifications

Monitoring instrument:

- Number of channels: 16
- SMA connectors (portable device), Push-pull connectors (industrial device)
- Portable device: External PC required
- Industrial device: dust protected with integrated touch screen

Cables:

- Protection: Metal shielding
- Standard length: 2.5 m
- Maximum length: 5 m (2 standard length cables combined)

Connectors:

- Versions: Tool-integrated / Sealing tape integration
- Thermal rating: up to 190 °C (depending on type)
- Vacuum loss: < 10 mbar / 5 min (Aerospace standard)

Sensors:

- Length: 1-3 m
- Size: thickness down to 0.2 mm
- Thermal rating: up to 190 °C (depending on type)



SF-16 (embedded system)