

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

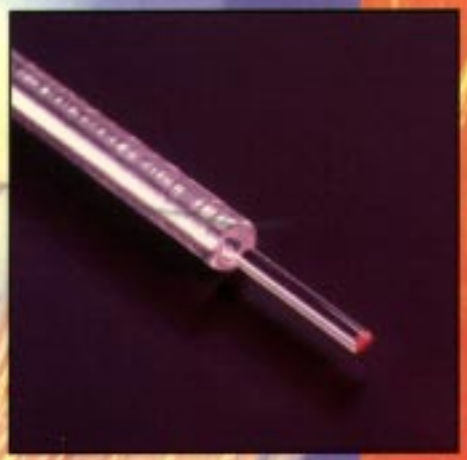
Visit our website - *Click HERE*

LUXTRON

Accufiber Models 10 & 100

Optical Fiber Thermometers





Precise Process Temperature Measurement And Control

- 100° - 4000°C RANGE
- 0.01°C RESOLUTION
- 0.1°C/YEAR STABILITY
- 10 kHz BANDWIDTH
- EMI IMMUNITY



The Accufiber Model 10 provides one optical channel and a choice of three sensor types.



The ultimate in versatility and up to 8 measurement channels is featured in the Model 100.

Accufiber Optical Fiber Thermometers For The Toughest Applications

LUXTRON's Accufiber-brand Optical Fiber Thermometers are in use worldwide in the most demanding and hostile applications in both industrial processes and research.

Some examples are:

- Semiconductor Wafer Processing,
- Glass Optical Fiber Drawing,
- Heat Treating in Induction Furnaces,
- Sintering, and
- Combustion Research.

An Accufiber thermometry system can be non-contact or contact. The sensor is coupled to flexible optical fiber which conducts light emitted from the target to a photo detector in the electronics unit. The photo detector converts the light energy into an electrical signal which is then digitized. This signal is converted into a temperature value using Planck's radiation equation.

Accufiber thermometry systems are unique in providing:

- High resolution of 0.01°C,
- Wide range of 100° to 4000°C,
- Exceptional stability of 0.1°C per year,
- Fast response of 10 kHz, and
- EMI immunity.

A Precision Sensor Design For Every Need

Many standard Accufiber sensors are available. And custom sensors can be designed for special needs. The three sensor types are:

- Sapphire Lightpipe Sensors,
- Sapphire Blackbody Sensors, and
- Optical Pyrometer Sensors (lens-based).

All sensors connect to the electronics unit via optical fiber, guaranteeing EMI immunity.

Accufiber **sapphire lightpipe sensors** are used for non-contact temperature measurements where the sensor can be close to the target. The lightpipe sensor is a fiber or rod of single crystal sapphire which gathers light from the target. Due to their versatility, they are perfect for difficult-to-reach targets.

Where intrusion into the process is not possible, Accufiber lens-based **optical pyrometer sensors** gather light from the target at a much greater distance. They are available with focal lengths from centimeters to five meters, and for target diameters from sub-millimeter to five centimeters. The unique Accufiber pyrometer design provides performance far greater than conventional infrared pyrometers.

If physical contact with the target is wanted, or very fast gas temperature measurement is needed, a selection of **sapphire blackbody sensors** is available. Accufiber's blackbody sensor is a sapphire fiber that is coated at its tip to form an effective blackbody emitting cavity.

A Choice Of Systems For Greatest Versatility And Cost Optimization

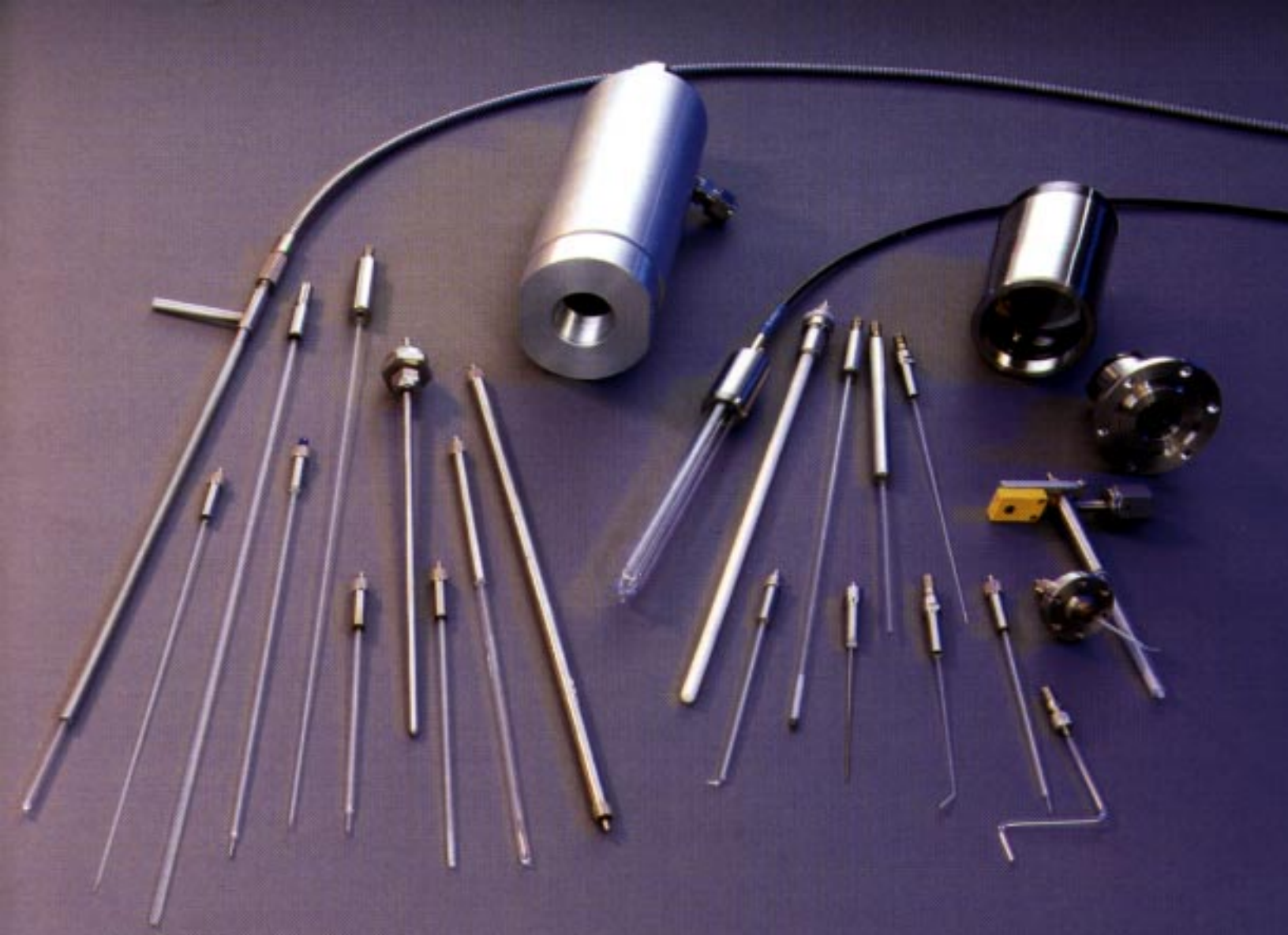
LUXTRON offers two Accufiber electronics units, the Model 10 and the Model 100, to best fit particular needs.

The common features are:

- 16 character alphanumeric display.
- Display units: °C, °F, °K.
- 16-segment, 16-bit resolution controller.
- Analog output: 0-10 V, 4-20 mA or thermocouple simulation.
- Digital output: RS-232C (bidirectional)

The differences between the Model 10 and the Model 100 are:

	MODEL 10	MODEL 100
Number of Channels	1 Optical 1 Thermocouple	1 to 8 Optical or Thermocouple
Measurement Speed	30/sec	80/sec per number of channels
Dual Wavelength Option	No	Yes
Wide Bandwidth Option	No	Yes



Applications

SEMICONDUCTOR INDUSTRY

- CVD/PVD
- Crystal Growth
- RTP
- Process Development

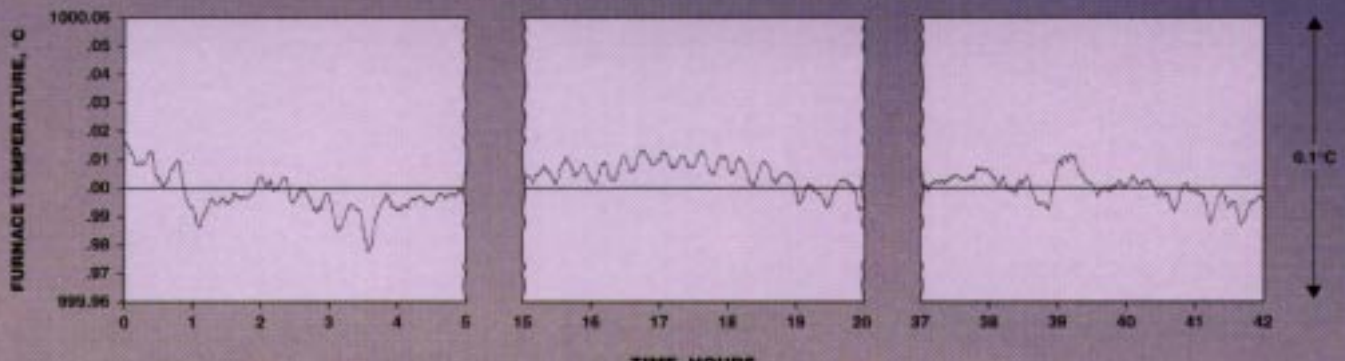
Maintaining precise silicon wafer temperature during thermal processing is critical to high wafer yields and device quality. Accufiber sapphire lightpipe sensors are used by semiconductor manufacturers worldwide to make in-situ, non-contact wafer temperature measurements during the growth of thin films. From wafer to wafer, the excellent long-term repeatability and the 0.01°C resolution make Accufiber sapphire lightpipe sensors perfect for control applications.

INDUSTRIAL HEATING

- Induction Heating
- Vacuum Furnaces
- Optical Fiber Drawing
- Deposition

Many temperature measurement requirements in industrial heating applications require immunity from electromagnetic interference, as well as high resolution and repeatability. No matter how strong the interference from RF, microwave, induction, or resistive energy, Accufiber systems give 0.01°C resolution and drift of less than 0.1°C per year. For control applications, a built-in PID controller is provided.

Furnace Control To Better Than 0.1°C*



*Total Drift During 2 Days: <±0.03°C

Specifications

MODELS 10 & 100

- Range: 100° minimum; 4000°C maximum
- Resolution: 0.01°C
- Stability: 0.1°C/year
- Accuracy: 0.2% @1000°C
- Built-in PID Controller (16 Segment)
- Control Resolution: 0.01°C
- Display: 16 Character Alphanumeric
- Digital Output: RS-232C (bidirectional)
- Analog Output: 0-10 VDC; 4-20 mA
- T/C Emulation: B, C, J, K, R, S
- Alarm Outputs
- Operating Temperature: 5 to 45°C
- Operating Humidity: 95% RH, non-condensing
- Storage Temperature: -40° to +75°C
- Electrical: 87- 253 VAC, 46-63 Hz

MODEL 10

- Optical Input: One (see specs above)
- Thermocouple Input: One
- Range: 0° to 1600°C
- J, K, S, R, B and C
- Sample Rate: 30 Readings/Second
- Bench or Panel Mount (Carrying Case Available)

MODEL 100 (See chart below)

- Sample Rate: 80 Readings/Second Divided by Number of Channels
- Bench or Rack Mount (Carrying Case Available)

Model 100 Input Modules (Two Maximum)

INPUT MODULE	CHANNELS/MODULE	FILTER WAVELENGTH (nM)	MINIMUM TEMPERATURE °C	MAXIMUM TEMPERATURE °C	RESOLUTION °C
Standard: Silicon Detector	1, 2, 4, 6, 8	950	400	2000	0.01
	1, 2, 4, 6, 8	300/1000	325	1200	0.01
	1, 2, 4, 6, 8	950	500	4000	0.1
InGaAs Detector	1, 2, 4, 6, 8	800/1700	100	1000	0.01
Dual Wavelength	1, 2, 4	800/950	650	3500	0.1
Wide Bandwidth (10 kHz)	2, 4	950	600	2000	0.1
Dual Wavelength/ Wide Bandwidth	1, 2	950	700	2000	0.1
Thermocouple	2, 4, 8, (also 2 T/C & 2 optical)	B, C, J, K, R or S			



The Company

LUXTRON Corporation was founded in 1978. Corporate headquarters, including manufacturing facilities, are located in Santa Clara, California.

LUXTRON develops, manufactures and markets unique sensors and instrumentation, based on optical and heat flow technologies, for a wide range of industrial, medical and R&D applications.

MAJOR PRODUCT LINES ARE:

Luxtron brand Fiberoptic Temperature Sensors and Instruments using patented Fluoroptic® sensors which are intrinsically safe and immune to EM interference (-200°C to +450°C).

Accufiber brand Fiberoptic Temperature Sensors and Instruments that use infrared emission technology. They are highly precise, accurate and immune to EM interference (+100°C to +4000°C).

Xinix brand Semiconductor and LCD Panel Process Controllers using noncontact, optical sensors in plasma (dry) etch, wet etch, resist develop and CMP processing equipment to determine precisely when a process or step is completed.

Transmet brand Non-Contact Temperature Systems that are applied to moving objects in industrial processes such as in wire and optical fiber production (+10°C to +300°C).

LUXTRON

2775 Northwestern Parkway, Santa Clara, CA 95051-0941
(800) 627-1666, (408) 727-1600, FAX (408) 727-1677

TÜV CERT ISO 9001

9/95

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP