

Tempris Sensors for Lyophilization

Technical Specifications





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Characteristics Temperature Sensors: wireless, battery-free, real-time measurement, unlimited data storage

Application: Freeze-drying / lyophilization; product temperature measurement in vials and dual chamber syringes.

TL Sensor Series

	Application	Vials 2R, 4R, 6R, 8R, 10R, 15R, 20R
	Temperature range	-60°C to +40°C / extended: -70°C to +70°C
	Measurement interval ²	1 sec to 600 sec
	Accuracy	Class 1: ±0.7K / Class2: ±0.5K / Class 3: ±0.3K with Calibration Certificate
	Recalibration interval	annually
	Geometry	DxL 4.8x14 mm
	Filling height	≤ 12 mm
	Weight	0.5 g
	Conformity	cGMP
	Sensor housing	USP Class VI
	Sterilization / Cleaning	Saturated steam, general disinfectant cleaners and sterilant
	Pressure	10 ⁻⁵ to 3 bars / 1 to 300 kPa
Protection Class	IP68	

	Application	Vials 10R, 15R, 20R, 25R, 30R, 30H
	Temperature range	-60°C to +40°C / extended: -70°C to +70°C
	Measurement interval ²	1 sec to 600 sec
	Accuracy	Class 1: ±0.7K / Class2: ±0.5K / Class 3: ±0.3K with Calibration Certificate
	Recalibration interval	annually
	Geometry	DxL 4.8x21 mm
	Filling height	≤ 18 mm
	Weight	0.5 g
	Conformity	cGMP
	Sensor housing	USP Class VI
	Sterilization / Cleaning	Saturated steam, general disinfectant cleaners and sterilant
	Pressure	10 ⁻⁵ to 3 bars / 1 to 300 kPa
Protection Class	IP68	

	Application	Vials 30R, 50R, 100R, 30H, 50H, 100H
	Temperature range	-60°C to +40°C / extended: -70°C to +70°C
	Measurement interval ²	1 sec to 600 sec
	Accuracy	Class 1: ±0.7K / Class2: ±0.5K / Class 3: ±0.3K with Calibration Certificate
	Recalibration interval	annually
	Geometry	DxL 4.8x31 mm
	Filling height	≤ 28 mm
	Weight	1.0 g
	Conformity	cGMP
	Sensor housing	USP Class VI
	Sterilization / Cleaning	Saturated steam, general disinfectant cleaners and sterilant
	Pressure	10 ⁻⁵ to 3 bars / 1 to 300 kPa
Protection Class	IP68	

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