Exact-Temp Thermometers

Continuously precise measurements
Exact-temp thermometers are high-precise instruments to monitor cooling and tempering devices in laboratories, medical technology and R&D. Each thermometer is mounted in an unbreakable plastic bottle, filled with a special medium to ensure accurate measurings even at open doors. They are supplied with magnets for space-saving wall or door fixing. Exact-temp thermometers are very reliable and economical because they work independent from any mains or battery connection.

Traceable to international standards
Exact-temp thermometers are available with organic or mercury filling in varying measuring ranges and scale units. The instruments are carefully aged to ensure a high accuracy. Exact-temp thermometers are calibrated with a reference and are therefore traceable to international standards. All instruments will be delivered with a certificate of conformance and accuracy.

On request we provide also a works certificate or DAkkS-Calibration certificate (two calibration points as standard). These high precision thermometers are especially suitable for monitoring certified quality management systems.

Application	Ref.-No.	Type	Measuring range (°C)	Scale unit (°C)	Accuracy (°C)	Length (mm)	Thermometer filling	Volume, bottle material	Bottle filling
Thermometers with organic filling									
Ultralow freezers	**70 001 11**	ULF-010S	-90 to +20	1.0	± 2	180	red	60 ml, PETG	Sand
Freezers	**70 101 11**	F-100-01S	-25 to -5	0.1	± 0.2	235	blue	60 ml, PETG	Ethylene glycol mixture
	70 001 12	F-010-1S	-30 to 0	0.5	± 1	130	red	30 ml, PETG	Ethylene glycol mixture
Refrigerators	**70 101 12**	R-200-01S	-2 to +10	0.1	± 0.2	230	blue	60 ml, PETG	Ethylene glycol mixture
	70 001 14	R-020-1S	-5 to +15	0.5	± 1	130	rot	30 ml, PETG	Ethylene glycol
Blood bank freezers	**70 001 13**	BB-100S	-5 to +20	0.5	± 1	150	red	250 ml, PETG	Ethylene glycol mixture
	70 101 13	BB-210-01S	-2 to +10	0.1	± 0.2	230	blue	250 ml, PETG	Ethylene glycol mixture
Incubators	**70 101 14**	I-300-01S	+15 to +30	0.1	± 0.2	180	blue	60 ml, PETG	Ethylene glycol mixture
	70 001 15	I-030-1S	+18 to +50	0.5	± 1	130	red	30 ml, PETG	Ethylene glycol mixture
	70 101 15	I-310-01S	+25 to +45	0.1	± 0.2	190	blue	60 ml, PETG	Ethylene glycol mixture
Ovens	**70 001 16**	OV-070S	+20 to +130	1.0	± 2	135	red	30 ml, PC	Vermiculite
	70 001 17	OV-080-S	+35 to +200	1.0	± 2 (>100 °C: ± 3)	180	red	60 ml, PFA	Vermiculite
	70 101 16	OV-700S	+50 to +115	0.5	± 1 °C	240	blue	60 ml, PC	Vermiculite
Thermometers with mercury filling (Hg)									
Freezers	**70 101 43**	F-100-01	-25 to -5	0.1	± 0.1	210	Hg	60 ml, PETG	Ethylene glycol mixture
	70 001 43	F-010-1	-30 to 0	0.5	± 0.5	110	Hg	30 ml, PETG	Ethylene glycol mixture
Refrigerators	**70 001 44**	R-020-1	-5 to +15	0.5	± 0.5	120	Hg	30 ml, PETG	Ethylene glycol mixture
	70 101 44	R-200-01	-2 to +10	0.1	± 0.1	180	Hg	60 ml, PETG	Ethylene glycol mixture
Blood bank freezers	**70 101 45**	BB-210-01	-2 to +10	0.1	± 0.1	180	Hg	250 ml, PETG	Ethylene glycol mixture
Incubators	**70 101 46**	I-300-01	+15 to +30	0.1	± 0.1	180	Hg	60 ml, PETG	Ethylene glycol mixture
	70 001 45	I-030-1	+18 to +50	0.5	± 0.5	130	Hg	30 ml, PETG	Ethylene glycol mixture
	70 101 47	I-310-01	+25 to +45	0.1	± 0.1	190	Hg	60 ml, PETG	Ethylene glycol mixture
Ovens	**70 001 46**	OV-070	+20 to +130	1.0	± 1	135	Hg	30 ml, PC	Vermiculite
	70 001 47	OV-080	+35 to +200	1.0	± 1 (>100 °C: ± 1.5)	180	Hg	60 ml, PFA	Vermiculite
	70 101 48	OV-700-01	+95 to +115	0.1	± 0.1	200	Hg	60 ml, PC	Vermiculite

Exact-Temp Thermometers with Safety Coating

Application	Ref.-No.	Type	Measuring range (°C)	Scale unit (°C)	Accuracy (°C)	Length (mm)	Thermometer filling	Volume, bottle material	Bottle filling
Thermometers with organic filling									
Ultralow freezers	**80 001 11**	ULF-010S	-90 to +20	1.0	± 2	180	red	60 ml, PETG	Sand
Freezers	**80 101 11**	F-100-01S	-25 to -5	0.1	± 0.2	235	blue	60 ml, PETG	Ethylene glycol mixture
	80 001 12	F-010-1S	-30 to 0	0.5	± 1	130	red	30 ml, PETG	Ethylene glycol mixture
Refrigerators	**80 101 12**	R-200-01S	-2 to +10	0.1	± 0.2	230	blue	60 ml, PETG	Ethylene glycol mixture
	80 001 14	R-020-1S	-5 to +15	0.5	± 1	130	red	30 ml, PETG	Ethylene glycol mixture
Blood bank freezers	**80 001 13**	BB-100S	-5 to +20	0.5	± 1	150	red	250 ml, PETG	Ethylene glycol mixture
	80 101 13	BB-210-01S	-2 to +10	0.1	± 0.2	230	blue	250 ml, PETG	Ethylene glycol mixture
Incubators	**80 101 14**	I-300-01S	+15 to +30	0.1	± 0.2	180	blue	60 ml, PETG	Ethylene glycol mixture
	80 001 15	I-030-1S	+18 to +50	0.5	± 1	130	red	30 ml, PETG	Ethylene glycol mixture
	80 101 15	I-310-01S	+25 to +45	0.1	± 0.2	190	blue	60 ml, PETG	Ethylene glycol mixture
Ovens	**80 001 16**	OV-070S	+20 to +130	1.0	± 2	135	red	30 ml, PC	Vermiculite
	80 001 17	OV-080-S	+35 to +200	1.0	± 2 (>100 °C: ± 3)	180	red	60 ml, PFA	Vermiculite
	80 101 16	OV-700S	+50 to +115	0.5	± 1°C	240	blue	60 ml, PC	Vermiculite
Thermometers with mercury filling (Hg)									
Freezers	**80 101 43**	F-100-01	-25 to -5	0.1	± 0.1	210	Hg	60ml / PETG	Ethylene glycol mixture
	80 001 43	F-010-1	-30 to 0	0.5	± 0.5	110	Hg	30ml / PETG	Ethylene glycol mixture
Refrigerators	**80 001 44**	R-020-1	-5 to +15	0.5	± 0.5	120	Hg	30ml / PETG	Ethylene glycol mixture
	80 101 44	R-200-01	-2 to +10	0.1	± 0.1	180	Hg	60ml / PETG	Ethylene glycol mixture
Blood bank freezers	**80 101 45**	BB-210-01	-2 to +10	0.1	± 0.1	180	Hg	250ml / PETG	Ethylene glycol mixture
Incubators	**80 101 46**	I-300-01	+15 to +30	0.1	± 0.1	180	Hg	60ml / PETG	Ethylene glycol mixture
	80 001 45	I-030-1	+18 to +50	0.5	± 0.5	130	Hg	30ml / PETG	Ethylene glycol mixture
	80 101 47	I-310-01	+25 to +45	0.1	± 0.1	190	Hg	60ml / PETG	Ethylene glycol mixture
Ovens	**80 001 46**	OV-070	+20 to +130	1.0	± 1	135	Hg	30ml / PC	Vermiculite
	80 001 47	OV-080	+35 to +200	1.0	± 1 (>100 °C: ± 1.5)	180	Hg	60ml / PFA	Vermiculite
	80 101 48	OV-700-01	+95 to +115	0.1	± 0.1	200	Hg	60ml / PC	Vermiculite

Thermometers with safety coating
All thermometers are encapsulated with a high-grade safety coating to protect contents, users and environment from splintered glass or display fluid leakage.
Coating: PTFE/FEP, transparent

Additional Order No.
...../03 with works certificate
...../04 with DAkkS calibration cert.

