



MINOLTA/LAND

Introducing a *new* family of CYCLOPS high precision, high temperature portable infrared thermometers.

CYCLOPS 53

The new Cyclops 53 is a general purpose, high temperature portable thermometer for accurate measurement in the range 600 to 3000°C/1100 to 5500°F.

Cyclops 53 produces fast, reliable readings in a wide range of applications including: steel, glass, refractories, heat treatment furnaces and ovens, and semi-conductors.

CYCLOPS 153 and 153A

The new Cyclops 153 and 153A are ruggedised dustproof thermometers for use in hostile industrial environments, in the extended measurement range of 500 to 3200°C/930 to 5800°F. C153 has an RS232C output and C153A has an RS232C and an analog output of 1mV/°. A background reflection compensation function is also provided for accurate measurement of targets in hotter surroundings.

CYCLOPS Meltmaster

The new Cyclops Meltmaster is designed for accurate temperature measurement of liquid metals in iron and steel foundries. MeltMaster provides a fast, reliable reading in the extended range 1000 to 1800°C/1830 to 3270°F.

Short wavelength operation (0.55µm) minimizes errors due to emissivity/atmospheric absorption.

CYCLOPS FurnacePro

The new Cyclops FurnacePro is designed for accurate temperature measurement in gas or oil fired furnaces in the range 450 to 1300°C/840 to 2370°F.

Narrow spectral response centred at 3.9µm eliminates errors caused by absorption/emission bands present in combustion gases.

LAND

instruments international

Infrared Temperature Measurement



TARGET SIZE TABLES

Cyclops 53, 153 and 153A

Target distance	(m)	100	50	20	10	7	5	2	1
Measurement area	(mm)	576	287	114	57	39	28	11	4.8
Target distance	(ft)	328	164	65.6	32.8	22.9	16.4	6.5	3.2
Measurement area	(in)	22.6	11.2	4.48	2.24	1.53	1.10	0.43	0.18

Cyclops FurnacePro

Target distance	(m)	100	50	10	7	5	2	1	0.75
Measurement area	(mm)	492	246	49	34	24	9.4	4.4	3.2
Target distance	(ft)	328	164	32.8	22.9	16.4	6.5	3.2	2.4
Measurement area	(in)	19.4	9.68	1.92	1.33	0.94	0.37	0.17	0.13

Cyclops Meltmaster

Target distance	(m)	7	6	5	4	3
Measurement area	(mm)	60	50	29	30	30
Target distance	(ft)	23	19.7	16.4	13.1	9.8
Measurement area	(in)	2.4	2.0	1.1	1.2	1.2

Specifications

Model	Cyclops 53	Cyclops 153/153A	Cyclops FurnacePro	Cyclops Meltmaster
Temperature Range:	600 to 3000°C/1100 to 5500°F	500 to 3200°C/930 to 5800°F	450 to 1300°C/840 to 2370°F	1000 to 1800°C/1830 to 3270 °F
Indication	4-digit LCD in viewfinder, 1° increments; over and under range warnings	4-digit LCD in viewfinder, 1° increments; over and under range warnings. External display 4-digit LCD of temp, emissivity, mode, battery level, over and under range warnings	4-digit LCD in viewfinder, 1° increments	4-digit LCD in viewfinder, 1° increments: display held for 30 seconds after switch-off: blinking display warns that temperature is out of measurable range
Measuring Mode:	Continuous (CONT), Peak Hold (PEAK), Minimum Hold (VALLEY)	Continuous (CONT), Peak Hold (PEAK), Minimum Hold (VALLEY)	Continuous (CONT), Peak Hold (PEAK), Minimum Hold (VALLEY)	Continuous (CONT), Peak Hold (PEAK), Average (AVERAGE)
Calculating Mode:	Maximum (MAX), Mean (MEAN), Minimum (MIN)			--
Optical System:	9° field of view with 1/3° measurement area. Eyepiece adjustable -3.75 to +2.5 diopters	8° field of view with 1/3° measurement area. Eyepiece adjustable -3.5 to +2.5 diopters	8° field of view with 1/3° measurement area. Eyepiece adjustable -3.75 to +2.5 diopters	9° field of view with 1/3° measurement area. single-lens-reflex system
Focusing Range:	1m/39.3in to infinity	1m/39.3in to infinity	750mm/29.5in to infinity	fixed at 5m/16.4ft
Target Size:	5mm/0.19in at 1m/39.3in	4.8mm/0.8in at 1m/39.3in	4mm/0.16in at 750mm/29.5in	29mm/1.1in at 5m/16.4ft
Spectral Response:	0.8 to 1.1µm	0.8 to 1.1µm	3.9±0.1µm	0.55µm
Emissivity Adjustment:	0.10 to 1.00 in 0.02 graduations	0.10 to 1.30 in 0.01 graduations	0.10 to 1.00 in 0.01 graduations	0.10 to 1.00 in 0.01 graduations
Response Time:	0.6 seconds (98% response)	0.45 seconds (98% response)	3.1 seconds (98% response)	0.8 seconds (approx.)
Accuracy:	±0.5% of reading ±1 digit in ambient temp. 20 to 30°C/ 68 to 86°F	±0.5% of reading ±1 digit in ambient temp. 18 to 28°C/ 64 to 82°F. e = 1.00	±1% of reading ±1 digit in ambient temp. 18 to 28°C/ 64 to 82°F. e = 1.00	±1% of reading ±1 digit in ambient temp. 18 to 28°C/ 64 to 82°F. e = 1.00
Repeatability:	±0.1% of reading in ambient temp. 20 to 30°C/68 to 86°F e = 1.00	±0.15% of reading in ambient temp. 18 to 28°C/64 to 82°F e = 1.00	±1°C/2°F of reading in ambient temp. 18 to 28°C/64 to 82°F e = 1.00	±0.3% of reading ±1 digit in ambient temp. 18 to 28°C/ 64 to 82°F. e = 1.00
Operating Temp. Range:	0 to 50°C/32 to 122°F			
Storage Temp. Range:	-20 to 55°C/-4 to 131°F			
Power Supply:	One 9V battery or d.c. power supply	Six AA-size batteries or optional a.c. adapter	One 9V battery or d.c. power supply	One 9V battery
Power Consumption:	16mA approx.	20mA (C153) approx. 25mA (C153A) approx.	30mA approx.	20mA with display on and 5mA with display off approx.
Dimensions:	210 x 70 x 140mm 8.25 x 2.75 x 5.50in	223.3 x 78 x 170mm 8.75 x 3.06 x 6.75in	208 x 70 x 147.5mm 8.37 x 2.75 x 5.80in	208 x 70 x 154mm 8.2 x 2.75 x 6.1in
Weight:	0.8kg/1.76lb	1kg/2.2lb	0.8kg/1.76lb	0.8kg/1.76lb