

### [1.9] Physical characteristics of TI-89 and TI-92 Plus

The table below shows some physical characteristics of the TI89 and TI92+. The characteristics for the TI-89 are for a HW1 calculator. Numbers in parenthesis refer to notes following the table.

Characteristic	TI-89	TI-92+
Overall length (1)	186mm (7.32 in)	219mm (8.62 in)
Overall width (1)	89mm (3.50 in)	125mm (4.92 in)
Overall height (1)	25mm (0.98 in)	40mm (1.57 in)
Volume (2)	414 cm3 (25.1 in3)	1095 cm3 (66.6 in3)
Mass (with batteries & cover)	264 g (9.3 oz)	563 g (19.86 oz)
Mean density	0.64 g/cm3	0.51 g/cm3
Number of physical keys (3)	45	80
Key dimensions:		
Number keys	11 x 7 mm (0.43 x 0.28 in)	9 x 5.5 mm (0.35 x 0.22 in)
Other keys	11 x 6 mm (0.43 x 0.24 in)	up to 11 x 15 mm (0.43 x 0.59 in)
Function keys	11 x 3.5 mm (0.43 x 0.14 in)	9 x 6 mm (0.35 x 0.24 in)
Key colors	White on gray White on blue White on black White on yellow Green on black White on purple	White on gray White on blue White on black Yellow on black Green on black
LCD display physical width (4)	55.5 mm (2.19 in)	83 mm (3.27 in)
LCD display physical height (4)	34.5 mm (1.36 in)	44.5 mm (1.75 in)
LCD display area (4)	19.1 cm2 (2.98 in2)	36.9 cm2 (5.72 in2)
LCD display aspect ratio (4)	1.61	1.87
LCD display width in pixels	160	240
LCD display height in pixels	100	128
LCD display pixel pitch	0.35 mm (0.014 in)	0.35 mm (0.014 in)
Pixel count	16,000	30,720
LCD horizontal viewing angle (5)	±50 degrees from vertical	±50 degrees from vertical
LCD vertical viewing angle (5)	-15 to +50 degrees from vertical	±50 degrees from vertical
Batteries	(4) AAA (1) CR1616	(4) AA (1) CR2032
Enclosure fasteners	(6) Torx T6 fasteners	None (plastic slide lock)
Cover mechanism	Slide + snap	Snap, cover can be used as tilt stand
External connectors	GraphLink I/O 2.5 mm	Graphlink I/O 2.5 mm Overhead LCD
Agency approvals	FCC Part 15 Canadian Class B CE C-TIC (Australian)	FCC Part 15 Canadian Class B CE C-TIC (Australian)
Patent markings	3819921 3921142 3932846 4115705 4208720 4348733	(same as TI-89)
Country of manufacture	Taiwan R.O.C.	Taiwan R.O.C.
Copyright date	1997	None
Nameplate recess on back	Yes	No

Notes:

- (1) Measured at maximum dimension including slide-on cover
- (2) Volume of maximum dimensions, not actual displacement volume
- (3) 92+ cursor keypad counted as four keys
- (4) Measured with respect to active pixel locations, not the full exposed display glass
- (5) Very approximate, subjective measurements; depends on contrast setting, lighting and battery voltage