

Technical data sheet MT0.1

General description

The mini key MT0.1 (Minitaster MT0.1) produces an electric field above his bonding surface. It penetrates glass, stone, plastics and wood up to a thickness of 1 cm.

After POWER ON a self-balancing takes place in 2 seconds.

Afterwards all slow field changes by humidity, pollution and temperature are compensated.

Just a quick tip with the finger generates an output signal (momentary – key, toggle – on/off).

The MT0.1 is especially suited for battery-operated instruments to a supply voltage of $U_B = +7$ VDC with an operational current of less than $5 \mu\text{A}$.

Supply voltages up to +30 volt are possible at types with npn-output, if with a multiplier (see chart below) the operational current is still limited to about 1 mA.

U_B	R_V	I_B
30 V	22 K Ω	1 mA
24 V	16 K Ω	1 mA
18 V	10 K Ω	1 mA
15 V	7,5 K Ω	1 mA
12 V	3,9K Ω	1 mA

Characteristics

- dynamic movement sensor
- automatic calibration
- optional P-MOS-open-drain- or N-MOS-open-drain- output
- low power \rightarrow battery operation possible
- typ. $5 \mu\text{A}$ at 4,75...7 VDC
- switch mode adjustable to customer requirements (toggle – on/off / momentary – key / MONO FLOPP)

Applications

- ▶ equipment keyboards
- ▶ domestic appliances
- ▶ automotive engineering
- ▶ alarm and security technologies
- ▶ sanitary technology
- ▶ automation technologies
- ▶ building control systems

Versions

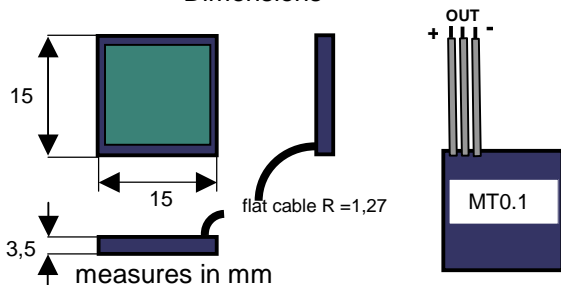
name: Minitaster MT0.1N / -NR / -R
 order number: 70 03 44 / 70 03 53

name: Minitaster MT0.1P / -NR / -R
 order number: 70 03 72 / 70 03 85

Technical data

dimensions	length by width by height = 15 by 15 by 3,5 mm
case	PUR – pottant (IP 67)
fixing	self-adhesive (“3M” – industry – adhesive film)
weight	3 g (incl. 0,3 m connection wire)
connection wire	3 by $0,07 \text{ mm}^2$ (length = 0,3 m / insulation = PVC 70 / prolongable)
supply voltage (+ U_B)	4,75...30 VDC
reference potential (- U_B)	0 V = ground = weight = PE = green/yellow
supply current	typ. $5 \mu\text{A}$ @ $+U_B = 4,75...7$ VDC / max. 10 mA @ $+U_B \leq 17$ VDC / ≤ 1 mA @ 30 V with $R_V = 22 \text{ K}\Omega$
operation characteristic	dynamic proximity switch (NR = momentary – key / R = toggle – on/off switch / MF = MONO FLOPP – pulse = 200 ms)
switching output (alternatively)	N-MOS-open-drain (45V/0,5A) to $-U_B$ P-MOS-open-drain (9V/20mA/internal overload cutoff) from $+U_B$
calibration	automatic
temperature range	-25...+70 °C
examination	acc. to CE: industry range
time of calibration	2 s after POWER \rightarrow ON
switching run	4 per second

Dimensions



Connection scheme

