Loop-powered Indicator TI200

♦ **Panel, in-head, or free mounting**
♦ **IP65 box and Ex housing available**
♦ **4-digit LCD or LED display**
♦ **Down to 2 mA operating loop current**
♦ **Programmable display ranges and alarms**
♦ **2 alarm outputs**
♦ **Built-in temperature transmitter available**

TI200 is a microprocessor-based programmable process indicator, designed especially to be powered from the input current loop. TI200 is equipped with a fully programmable -1999...9999 LCD or LED display with programmable point position and digital filter as well as with a 2-key (hidden) keyboard. Two alarm limits with programmable parameters – set point, hysteresis, direction, dead time, etc – control 2 alarm outputs (polarized relay type or open collector type, which can be used to control external relays). Five different housing types are available:

− plastic case for panel mounting with 96x96 mm DIN front size;
− plastic case for panel mounting with 96x48 mm DIN front size;
− plastic box with IP65 protection class and 80x80 mm front size;
− housing for mounting into sensor protection head type "DW" or "DHW";
− housing for mounting into sensor protection head type "EGW".

The IP65-box housing allows a standard in-head transmitter to be incorporated inside the box so TI200 can be used as a temperature or level transmitter with local programmable display. The low price, alarm features, and flexibility make TI200 widely applicable in industry and especially when loop current transmission is measured.

Technical specifications

Input

Input	
Input type	loop supply DC current
Operating range	3...22 mA
Measurement range	4...20 mA
Display range	min. -1999...max. 9999
Display-to-input correspondence	programmable
Decimal point selection	programmable

Outputs *(set of 2 alarm outputs)*

Outputs	
Non-isolated transistor gate	open collector, 100mA/40V
Polarized relay	5A/250V w/ NO contact
Control algorithm	ON/OFF
Alarms	programmable

Accuracy

Accuracy	
Measurement error	± 0.05% from span ± 1 digit
Non-linearity	within measurement error
Temperature drift	0.025% from span for 1 °C

Power supply

Power supply	
Loop supply voltage	4...36 VDC
Loop supply current	2...50 mA

Indication and controls

Indication and controls	
Digital display	4 LCD (plus backlight), 13 mm or 4 LED indicators, 14 mm
Keyboard	2 (hidden) keys

Operating conditions

Operating conditions	
Operating temperature	-10...65 °C
Operating humidity	0...85 %RH [1]

Design and materials

Design and materials	'B'	'H'	'Y'	'Z1'	'Z2'
Front dimensions [mm]	96x96	96x48	80x80	ø63	ø74
Mounting	panel	panel	free [2]	in head [3]	in head
Panel cutout [mm]	90x90	90x42	-	-	-
Mounting depth [mm]	98	98	60	23	23
Maximum weight [g]	300	200	200	60	60
Protection, front/terminals	IP54/20	IP54/20	IP65	IP65	IP68
Increased front IP *(option)*	IP65 [4]	IP65	-	-	-
Case material	plastic	plastic	plastic	aluminum	aluminum
Wiring (terminals)	plug-in	plug-in	screw	spring	spring

[1] 0...95 %RH for case 'Y'
[2] Radial, axial, and DIN-rail mounting accessories for 80x80x60 mm box can be ordered separately (see 'Accessories')
[3] May be mounted in different, separately ordered Ex housings for field applications (see 'Accessories')
[4] Ask for availability!

Ordering code   TI200 - G0.G2.G5 - #1.#2.#3

Code	Feature or option	Code values
G0	Case	**B** - for panel mounting, 96x96 mm, **H** - for panel mounting, 96x48 mm, **Y** - box IP65, **Z1** - for mounting in head type "DW" or "DHW" [3], **Z2** - for mounting in head type "EGW" [3]
G2	Display	**A** - LCD, **B** - LED, **T** - LCD + backlight
G5	Relay outputs (set of 2 alarm outputs)	**X** - none, **A** - relays NO, **E** - open collectors NPN, **F** - open collectors PNP
#1	Increased front protection	**X** - none, **P** - IP65 front protection [5]
#2	Temperature transmitter	**X** - none, **TT** - built-in temperature transmitter [6]
#3	Mounting kit	**X** - none, **E** - kit for mounting in Ex housing [7]

[5] Not available for cases 'Y', 'Z1', and 'Z2'. Ask for case 'B'!
[6] Available ONLY for case 'Y'! Specify exact transmitter type and specifications separately.
[7] Only for cases 'Z1' (for mounting in instrument housing EX) and 'Z2' (for mounting in head type "EGW")