COMECO CONTROL & MEASUREMENT
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BS EN ISO 9001

8-channel Programmable Indicator TC800

- **8 inputs, 8 outputs and 16 alarms**
- **Two displays: for measured value and channel number**
- **Programmable ranges and alarms**
- **Self testing and system failure alarm**
- **Optional network connection through RS 485 interface**

The **TC800** indicator is designed for multi-point control of technological variables. With its compact design, eight inputs and outputs TC800 successfully performs all the tasks of indicating, monitoring and signaling the level of several channels. With the proper programming, any of the channels may be turned into a two or three state on-off controller and even into a multistage controller. When two relay outputs are used motorized actuators may be controlled. The device input accepts thermoresistances, thermocouples or standard current and voltage signals. **Additional discrete inputs** are available for remote channel switching and tampering protection. The device performs **digital compensation** for thermoresistive sensors line resistance as well as thermocouple cold-junction compensation. A rich set of parameters allows programming of every aspect of controller operation. The device performs **self-testing** and constantly monitors sensor and sensor leads state. If a failure is detected the dedicated alarm relay output is activated. The serial interface option allows **network operation** or connection to operator station.

TI

Technical specifications

Analog inputs	*(from 2 to 8 inputs)* [1]
Pt10…1000 (w=1.385/1.391)	-100(-200) to +200(850) °C [2]
Cu50…100 (w=1.426/1.428)	-50(0) to +200 °C [2]
Other thermoresistive [3]	min. -200 to max.+850 °C
Thermocouple "E"	0 to +1000 °C
Thermocouple "J"	0 to +800 °C
Thermocouple "K"	0 to +1200 °C
Thermocouple "L" (L-GOST)	0 to +600 °C
Thermocouple "R"	0 to +1600 °C
Thermocouple "S"	0 to +1600 °C
Thermocouple "T"	0 to +400 °C
Thermocouple "U"	0 to +600 °C
Other thermocouple [3]	0 to max. +2400 °C
Voltage: 0…1/2/5/10 V	min. -999 to max.+9999
Current: 0(4)…20 mA	min. -999 to max.+9999
Custom linear: [3]	
min. 0 to max. 40 V DC	min. -999 to max.+9999
min. 0 to max. 50 mA DC	min. -999 to max.+9999
Digital point	User programmable
Display range	User programmable [4]

Discrete input *(optional)*	*(max. 2 inputs)*
Input signal type	Contact, TTL, NPN or PNP
Input 1 function	Remote channel selection
Input 2 function	External programmed parameter protection

Relay outputs	*(from 1 to 8 outputs)* [5]
Relay electromechanical	3A/250V - NO contacts
Solid state relay (optional)	SSR - 1A/250 VAC
Transistor gate (optional)	Open collector - 40mA/40V or TLL
Alarm limits	Up to 16 programmable alarms
System failure alarm	Activates relay output No 8

Accuracy	
Measurement error	0.4 % from span
Temperature drift	0.005 % from span for 1 °C
Line resistance compensation	Software
Cold junction compensation	Automatic software ± 1 °C

Power supply	
Supply voltage Pulse mode	220(110) VAC ± 10%
(optional)	90 to 250 VAC/DC
Consumption	Max. 4 VA

Operating conditions	
Operating temperature	-10 to 65 °C
Operating humidity	0 to 85 %RH

Digital interface *(optional)*	
Output type	RS485
Output function	Network, operator station

Digital display	
Channel number display	2 digit LED 14mm - green
Measured value display	4 digit LED 14mm - red
Alarm state LEDs	16 LED - red
Relay state LEDs	8 LED - green
Keyboard	8 membrane keys

Design and materials	
Case material	Plastic
Mounting	In panel cut-out
Wiring	Screw terminals
Dimensions	96 x 96 (front) x 120 mm Max.
Weight	650 g
Protection front/terminals	IP-54 / IP-20

[1] Different inputs may be for different sensor types. The input type and range are specified by customer
[2] The range is additionally specified in the order
[3] On request (within stated limits)
[4] Available only for linear analog input
[5] Relay 1 8 always presents (for system failure alarm)!

Ordering code

➔ **TC800 - G1.G5------G5.G6'6"------G6'6".G7G7.G9**

Code	Feature or option		Code values
G1	Power Supply type		**A** - 220 VAC, **C** - 90…250 VAC/DC [6]
G5	Relay output type		**X** - none [5], **C** - relay NO/NC, **D** - SSR, **E** - open collector NPN, **G** - TTL
G6'	Input signal type		**B** - thermoresistance, **C** - thermocouple, **D** - linear, **Z** - other on request
G6"	Sensor type	Thermoresistance [2]	**B** - Pt50, **D** - Pt100, **F** - Pt500, **G** - Pt1000, **H** - Cu50, **K** - Cu100, **Z** - other
		Thermocouple	**J** - "J", **K** - "K", **L** - "L" , **M** - "L-GOST", **S** - "S", **Z** - other
		Linear	**B** - 0…20 mA, **C** - 4…20 mA, **H** - 0…2 V, **I** - 0…5 V, **K** - 0…10 V, **Z** - other
G7	Discrete inputs		**X** - none, **A** - contact, **E** - NPN, **F** - PNP, **G** - TTL
G9	Interface		**X** - none, **B** - RS 485

[6] Contact COMECO for availability!

For detailed instructions on ordering coding see chapter "ORDERING CODES"!

COMECO reserves the right of changing specifications without prior notice!

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