

Datasheet: com.tom BASIC 10.1

The com.tom BASIC 10.1 is a ready-to-use gateway and edge cloud controller for the rapid development of IoT application specific solutions. The device contains several communication interfaces like Ethernet and a serial port, as well as a secure industrial-proven portal connection.

The device includes a local web server for parametrization, programming logic (WEB-PLC, with a graphical editor) and alarm functions.

With the WEB-PLC editor and the integrated com.tom PORTAL communication this device offers turnkey solutions for process data acquisition, process automation and remote service.



Technical data

IPC@CHIP®	SC143-LF Embedded Controller
Ethernet interface	1 x 10/100BaseT, RJ45 connector with traffic and link LED
Serial interface	1 x RS232, RS485 or RS422 (selectable) with DSUB9 connector
Digital inputs/outputs	<p>8 channels (input or output). When used as an output the signal can be read back via the input function.</p> <p>inputs:</p> <ul style="list-style-type: none"> max. 8 x sink 24 V DC, 5 mA (typ.) TRUE: 15 V DC min (nom.) FALSE: 5 V DC max (nom.) <p>outputs:</p> <ul style="list-style-type: none"> max. 8 x transistor (high side) 24 V DC, 500 mA (max.) short circuit and overload resistant <p>no potential isolation</p>
Analog inputs	<p>8 channels (voltage or current)</p> <p>input type configurable per channel:</p> <p>0 – 10 V / 4 – 20 mA (+/- 3%)</p> <p>no potential isolation</p>
SD Card interface	MMC/SD memory card
Supply voltage	<p>24 VDC (-15% / +15%)</p> <p>mating connector Weidmüller BL 3.50/03 included in the delivery scope</p>

Active current	max. 240 mA (at 24 VDC)
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Software engineering

Operating System	IPC@CHIP® RTOS Real-time operating system
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WEB-PLC editor and runtime	<p>Web based editor installed on the internal web server</p> <p>Up to 786 I/O values</p> <p>Up to 64 portal variables</p> <p>PLC function units:</p> <ul style="list-style-type: none"> - Binary: AND, OR, XOR - Bits and Bytes: Extract, Pack, Put Bit, Shift register, Unpack - Controllers: On/Off, P, Shade - Messages: Send, Receive - Numerical: Addition, Subtraction, Multiplication, Division, Minimum, Maximum, Counter, Compare, Signal Limiter, Signal Converter, Signal Smoother, Signal Tracker - Special: First Cycle, OpenVPN, Portal Status - Storage, selection, edge detection: Demultiplexer, Multiplexer, RS Flipflop, T Flipflop, Trigger, State Machines - Timing: Local Clock, UTC Clock, TON, TOFF, TP, Timer, Compare Time, Time Switches <p>PLC diagram:</p> <ul style="list-style-type: none"> - Up to 256 function units, I/O values, portal variables and constants - IPO cycle time: 25 – 1000 ms
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WEB-PLC additional functions	<p>Event log: System events are logged with timestamp, message and event type</p> <p>Simple Network Time Protocol (SNTP) synchronization of the system clock</p> <p>OpenVPN: Integrate the com.tom device into a virtual private network</p> <p>DHCP Server: Up to 100 clients, up to 10 static leases</p> <p>NAT: Route traffic between a local (internal) and a global (external) network, up to 500 mappings, up to 10 static mappings</p> <p>Firewall: Filter incoming traffic, up to 500 rules (including dynamic rules for outgoing traffic), up to 30 static rules</p> <p>CODESYS network variables: Up to 32 lists and 256 values</p>
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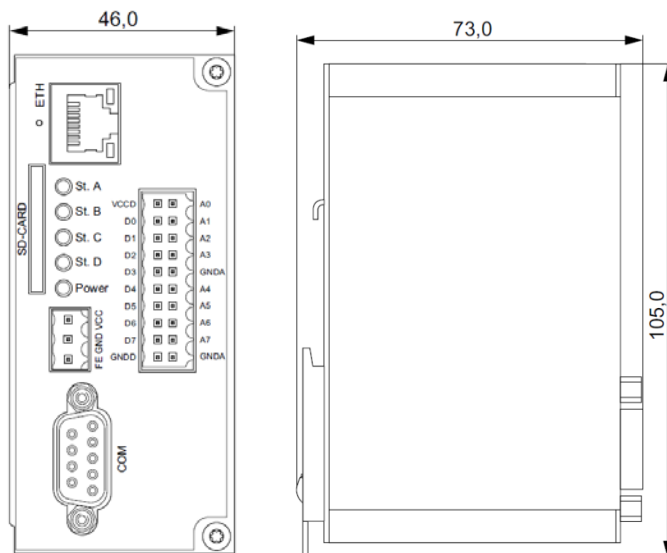
	COM Server: According to RFC 2217
	Modbus: RTU master and TCP client, up to 32 devices and 256 values. RTU slave and TCP server, up to 128 values
	Time switches: Up to 8 switches, crontab format
	MicroBrowser interface
	Update: Via com.tom PORTAL, local WEB page or SD card
	Export: Export the diagram and/or the settings of the com.tom device as an update package
com.tom PORTAL communication	Transferred information: <ul style="list-style-type: none">- device information- GPS information (optional)- portal round trip times- update url, trigger and status- OpenVPN activation and status- I/O values- portal variables

Environmental

Operating temperature (TA)	0°C to +55°C (-20°C to +60°C upon request)
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Mechanical data

Size (W x L x H)	46 x 105 x 73 mm
Material	Hot-dip aluminium-zinc coated steel sheet (DIN EN 10215).
Mounting	DIN rail mounting



Compliance and Conformity

CE, R&TTE, RoHS/WEEE	
- EMC emission	IEC 61000-6-4
- EMC immunity	IEC 61000-6-2
- Protection Rating	IEC 60529: IP20
- Low Voltage Directive	IEC 60950-1

Order information

com.tom BASIC 10.1:	571099
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