

Datasheet: com.tom BASIC 9.1

The com.tom BASIC 9.1 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, PROFINET (IRT) 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
PROFINET interface	2 x 10/100Base T, RJ45 connectors, integrated 2-port switch, module and network status LED, PROFINET I/O profile
SD Card interface	MMC/SD memory card
Supply voltage	24 VDC (-15% / +15%), mating connector Weidmüller BL 3.50/03 included in the delivery scope
Active current	max. 200 mA (at 24 VDC)

Software engineering

Operating System	IPC@CHIP® RTOS
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
WEB-PLC additional functions	<p>Event Log: System events are logged with timestamp and message</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>Messages: Send and receive short messages (up to 10 templates respectively)</p> <p>CODESYS network variables: Up to 32 lists and 256 values</p> <p>COM Server: According to RFC 2217</p>

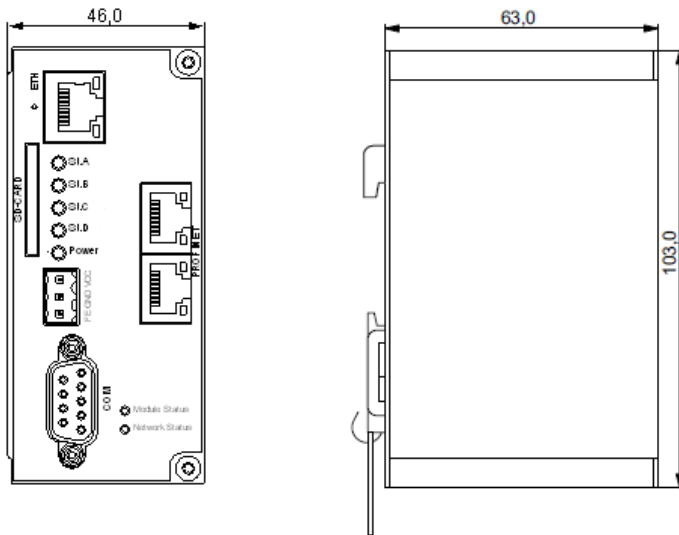
	<p>Modbus: RTU master and TCP client, up to 32 devices and 256 values. RTU slave and TCP server, up to 128 values</p> <p>PROFINET I/O: Up to 32 modules and 64 values</p> <p>Time switches: Up to 8 switches, crontab format</p> <p>MicroBrowser interface</p> <p>Update: Via com.tom PORTAL, local WEB page or SD card</p> <p>Export: Export the diagram and/or the settings of the com.tom device as an update package</p>
com.tom PORTAL communication	<p>Transferred information:</p> <ul style="list-style-type: none">- device information- 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 103 x 63 mm
Material	Completely 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
- Electrical Shock	IEC 61140: Class III
- Low Voltage Directive	IEC 60950-1
- R&TTE Directive	EN 301 489-1/-7, EN 301 511

Order information

Order-No. com.tom BASIC 9.1:	571061
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