

OTMC 100

Technical Data



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The product information, specifications, and technical data embodied in this manual represent the technical status at the time of writing and are subject to change without prior notice.

We have done our best to ensure that the information given in this manual is useful, accurate, up-to-date and reliable. However, OMICRON does not assume responsibility for any inaccuracies which may be present.

The user is responsible for every application that makes use of an OMICRON product.

OMICRON translates this manual from the source language English into a number of other languages. Any translation of this manual is done for local requirements, and in the event of a dispute between the English and a non-English version, the English version of this manual shall govern.

1 Technical Data

1.1 General specifications

Characteristic	Specification
Dimensions	Overall height (without connector and mounting kit): 106.2 mm / 4.17" Diameter: 115.5 mm / 4.55"
Weight	< 500 g / 1.1 lbs
Degree of protection	IP67 according to EN 60529
Power consumption	< 2 W
Satellite receiver	Hardware revision 3 (see type plate) 32 channels GPS frequency: 1575.42 MHz, L1 band GLONASS frequency: 1602.00 MHz, L1 band Previous OTMC 12 channel GPS receiver GPS frequency: 1575.42 MHz, L1 band

1.2 Networking and management

Characteristic	Specification
Networking	1 Ethernet port, 10Base-T/100Base-TX Ethernet Supports IPv4 and IPv6 Power over Ethernet (PoE) according to IEEE 802.3af DHCP Zeroconf (MDNS/DNS-SD) Waterproof Ethernet connector according to IEC 61076-3-106 (Variant 4)
Management	Web interface (HTTP/HTTPS) TFTP, FTP and SSH access Automated configuration via SSH and XML files Failsafe software upgrade in the field Email notifications Syslog (local and remote) SNMP (for IEEE C37.238-2011)

1.3 Timing performance

Characteristic	Specification
Timing accuracy	±100 ns to reference time (TAI/UTC)
Supported timing protocols	PTP according to IEEE 1588–2008 (IEEE 1588 version 2) NTP v4 according to RFC 5905 Time (RFC 868) Daytime (RFC 867)
PTP features	Default profile IEEE 1588-2008, Annex J Power profile according to IEEE C37.238-2011 (IEEE profile for use of IEEE 1588-2008 Precision Time Protocol in power system applications) Power profile IEEE C37.238-2017 (IEEE profile for use of IEEE 1588-2008 Precision Time Protocol in power system applications) IEC/IEEE 61850-9-3:2016 One-step and two-step operation End-to-end (multicast) and peer-to-peer delay mechanisms PTP over UDP/IPv4, UDP/IPv6 and Ethernet/IEEE 802.3 (IEEE 1588-2008 Annex D, E, and F) PTP management interface High performance (up to 512 messages per second)

1.4 Environmental conditions

Characteristic	Specification
Temperature range	Operation: –40 °C ... +70 °C (–40 °F ... +158 °F) Storage: –40 °C ... +85 °C (–40 °F ... +185 °F)
Weathering resistance	For outdoor use (IP67)
Climate	IEC 60068-2-30, Test Db, damp heat, cyclic (6 cycles, 55 °C)
Vibration	IEC 60068-2-6, Test Fc, sinusoidal vibration, 6 mm at 5 – 9 Hz, 2 g at 9 – 200 Hz
Shock	IEC 60068-2-27, Test Ea, 15 g/11 ms half sine

1.5 Standards and certificates

Characteristic	Specification
Conformity	Radio Equipment Directive (RED)
EMC emission	EN 55022, EN 61326-1
EMC immunity	EN 55024, EN 61326-1, EN 62305-4
Safety	IEC 62368-1, IEC 60950-22
Certificates	 The logo is a blue octagon with a white border. Inside the octagon, the text 'TÜV' is prominently displayed in a large, bold, sans-serif font. Below 'TÜV', the text 'SÜD' is written in a smaller, bold, sans-serif font. The octagon is divided into four quadrants by a white cross. In the top-left quadrant, the text 'Safety tested' is written in a small, sans-serif font. In the top-right quadrant, the text 'Production monitored' is written in a small, sans-serif font. Below the octagon, the letters 'C' and 'US' are printed in a bold, sans-serif font, separated by a small gap.