



The 750-644 I/O Module permits the wireless exchange of process data with up to seven other devices via Bluetooth® 2.0 radio technology. Interoperability with Bluetooth® devices is made non-proprietary via PAN and SPP Bluetooth® profiles. A special profile for time-sensitive applications is also available.

Reliable connections over distances of up to 1000m are possible using the WAGO 758-912 external antenna.

The module's extended diagnostic functions include cyclic and acyclic state information. For quick on-site diagnostics, main information on operational status and radio connection is also displayed via 8 LEDs.

The I/O module can be operated with all standard fieldbus couplers/controllers from the WAGO-I/O-SYSTEM 750. Module configuration is performed locally via WAGO-I/O-CHECK.

| Description | Item No. | Pack. Unit |
|------------------------------------|---|------------|
| Bluetooth®/RF Transceiver | 750-644 | 1 |
| Product discontinuation | Last Call: 01.06.2018 | |
| | | |
| Accessories | Item No. | Pack. Unit |
| Miniature WSB Quick marking system | | |
| plain | 248-501 | 5 |
| with marking | see Section 11 | |
| External antenna | WLAN/Bluetooth 2.4 GHz | 758-912 |
| | | |
| Approvals | | |
| FC | FCC approval (This device complies with part 15 of FCC rules) | |
| Bluetooth® | Bluetooth® approval | |
| Conformity marking | CE | |
| Korea Certification | KC | |
| UL 508 | | |
| ANSI/ISA 12.12.01 | Class I, Div. 2, Grp. ABCD, T4 | |
| TÜV 07 ATEX 554086 X | I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc | |
| IECEx TUN 09.0001 X | Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc | |

| Technical Data | |
|------------------------------------|--|
| Wireless technology | Bluetooth® 2.0 + EDR |
| Topology | Piconet (1 master, max. 7 slaves) |
| Coexistence | AFH and adaptive transmission power |
| Profiles | SPP, PAN |
| Operating modes | Communication mode with ad-hoc profile for high connectivity and real-time profile for time-critical applications, as well as configuration mode |
| Frequency band | 2402-2480 MHz (license-free ISM band) |
| Transmitter power | up to 20 dBm (Bluetooth® Class 1) |
| Receiver sensitivity | -94 dBm |
| Transmission range | max. 1000 m in open field, 100 m in buildings (using a WAGO external antenna, item no. 758-912) |
| Voltage supply (Bluetooth) | via 24 V DC field supply |
| Voltage supply (internal) | via system voltage DC/DC |
| Current consumption (Bluetooth) | approx. 8 mA, max. 35 mA |
| Current consumption (internal) | approx. 20 mA |
| Isolation | 500 V antenna/system |
| Internal bit width | 12, 24, 48 bytes configurable; incl. 1 byte control/status |
| Diagnostics (via visual indicator) | Device status, connection status ¹⁾ |
| Diagnostics (via process image) | Device status, connection status ¹⁾ , time monitoring |
| Configuration | WAGO-I/O-CHECK and WAGO-I/O-PRO CAA |
| Dimensions (mm) W x H x L | 24 x 64* x 100; *+ excess length of the SMA socket approx. 6.5 mm |
| Weight | 85 g |
| EMC immunity of interference | acc. to EN 61000-6-2, EN 61131-2 |
| EMC emission of interference | acc. to EN 61000-6-3, EN 61131-2 |
| ¹⁾ | Quality of radio connection, signal strength, interference |