

RealTrac Access Point

Description and intended use

RealTrac Access Point (access point, repeater, reader) is the stationary multi-purpose device included into the RealTrac Real Time Location System.

RealTrac Access Point is fixed to the ground map or premise layout (geographic coordinates).

Primary functions of RealTrac Access Point are distance measurements between itself and mobile devices included into the RealTrac System, and data transmission to the location server. For precise positioning of any mobile device the RealTrac server needs to receive the data of distances from the mobile device to at least 3 access points (triangulation).



Besides the measurements of the distance to the available mobile devices of the system, RealTrac Access Point acts as repeater while data transmitting from any other access points to the RealTrac System's server and backwards.

Additionally, RealTrac Access Point allows transmission of the voice communication data inside the RealTrac System.

Capabilities

RealTrac Access Point provides digital data transmission channel for mobile equipment of RealTrac System used for transmission of distance measurement results, various system information, voice messages, sensor readings from the mobile devices, etc., to the server.

Access point could operate in 2 modes: as gateway (in case of Ethernet cable connection) between wire and wireless network segments, and as repeater for wireless network 802.15.4a. In repeater mode the access point re-transmits all messages from the mobile devices to the adjacent access points for further data packages transmission to the server.

Universal solution for voice communication,
positioning and monitoring

Intended use

There are two various makes for the body of RealTrac Access Point, namely Base and Strong.

Base body is designed for indoor use without any special operating conditions.

The body's design is modern and laconic. The body is made of high-quality plastic and harmonically fits into any most stylish interior.

By virtue of special mounting openings the device could be fixed on a wall or ceiling.

As opposed to the Base body, Strong body is designed for outdoor use, on production facilities, etc. – where the need for advanced protection and reliability exists. RealTrac Access Point produced in Strong body is also certified for use in mining industry and directly in the mines.

The Strong body provides dust and moisture protection level IP 67 making it completely impermeable for dust and almost impermeable for water (temporary submersion is allowed to the depth of up to 1 m). At the same time it is quite compact, produced of steel and glass, its design and shape are laconic and allow its use in the premises as well.



Specifications

Parameter	RealTrac Access Point Body Base	RealTrac Access Point Body Strong
Overall dimensions, mm	160x100x32	210x80x113
Weight, g	Not more than 350	800 r
Bandwidth, GHz	2.4 – 2.48	2.4 – 2.48
Operating temperature range, °C	0 – 60	-30 - +60
Dust and moisture protection (Ingress Protection)	IP 40	IP 67
Operating radius to the mobile devices, m	Up to 400 m outdoor, up to 100 m indoor	Up to 400 m outdoor, up to 100 m indoor
Positioning precision, m	Up to 1-2	Up to 1-2
Operating time – access point	Yes	Yes
Operating time – repeater	Yes	Yes
Power supply	5V, 1A	9-12V 0,7A
Power unit connection	220V, 50Hz	220V, 50Hz

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