



## Bluetooth communication enabler

### 4512

- Bluetooth communication between the PR 4000 and 9000 devices and iOS/Android devices
- Live monitoring of process values and diagnostics on compatible smart devices or directly on the PR 4512
- Advanced data logging and event logging using the built-in real-time clock



#### Applications

- Program devices via Bluetooth using an iOS/Android device running the free PPS app (PR Process Supervisor).
- Use PPS data for preventive maintenance.
- All logged data can be exported in .csv format, for advanced data analysis off-site.
- On-site analysis of real-time process data on an iOS/Android compatible device.
- Off-site analysis of historic process data on a PC using PRreset.

#### Technical characteristics

- PR 4512 runs Bluetooth 4.2, and requires a smart device with 4.0 or newer.
- PPS is compatible with iOS and Android devices.
- The PR 4512 automatically detects the device setting on the connected PR 4000 and 9000 device.
- An internal battery energizes the 4512 real-time clock for at least 2 years, should the 4512 remain de-energized.
- Typical data logging capacity is more than 30 days at 1 second intervals.
- Easy to read dot matrix LCD display.
- Fast pairing or safe pairing via two-factor authentication.

#### Mounting / installation / programming

- Mounting in Zone 2 / Div. 2.
- The 4512 can be moved from one device to another. The individual system 4000/9000 device configuration of a transmitter can be saved and downloaded to subsequent transmitters.
- Programmed parameters can be protected by a user-defined password.
- When mounted on devices that are installed upside down, a menu selection rotates the 4512 display 180 degrees and reverses the up/down button functions.
- All data, including configuration, data log and event log from a PR 4000 / 9000 device can be transferred to a PC using the PR 4590.
- Please find an updated list of countries who have approved the use of 4512 at: [www.prelectronics.com/4512-bluetooth-approvals/](http://www.prelectronics.com/4512-bluetooth-approvals/)

#### Note

- If you need an installation instruction in hard copy, you can order it for free when placing your order.

**Order**

| Type | Description                     |
|------|---------------------------------|
| 4512 | Bluetooth communication enabler |
| 4590 | ConfigMate Interface            |

**Environmental Conditions**

|                            |   |
|----------------------------|---|
| Operating temperature..... | -20°C to +60°C                                      |
| Storage temperature.....   | -20°C to +85°C                                      |
| Relative humidity.....     | < 95% RH (non-cond.)                                |
| Protection degree.....     | IP20  |
| Installation in.....       | Pollution degree 2 & meas. /<br>overvoltage cat. II |

**Mechanical specifications**

|  |                       |
|--|-----------------------|
| Dimensions (HxWxD).....                      | 73.2 x 23.3 x 26.5 mm |
| Dimensions (HxWxD) w/ 4000/9000<br>unit..... | 109 x 23.5 x 131 mm   |
| Weight approx.....                           | 30 g                  |

**Common specifications****Supply**

|                          |   |
|--------------------------|---|
| Supply voltage.....      | 6.5...20 V supplied from host<br>4000 / 9000 device |
| Max. required power..... | 0.15 W  |

**Data logging**

|   |   |
|---|---|
| Memory.....   | 100 MB  |
| Capacity.....   | > 2.75 million data points<br>(depending on the connected<br>PR device) |
| Data retention, without power.....                            | ~ 10 years  |
| Extended EMC immunity: NAMUR<br>NE21, A criterion, burst..... | No loss of communication  |
| Internal battery back-up (for<br>real-time clock).....        | 2 years (@ 25°C)  |
| Calibrated clock accuracy.....                                | <±60 s/year @ 25°C  |
| Bluetooth communication.....                                  | BLE 4.2   |
| Bluetooth radio.....  | Class 2   |

**I.S. / Ex marking**

|             |  |
|-------------|--|
| ATEX.....   | II 3 G Ex ec IIC T5                                      |
| IECEX.....  | Ex ec IIC T5 Gc  |
| FM, US..... | Cl I, Div 2, Gp A, B, C, D T5; Cl<br>I, Zn 2, Grp IIC T5 |
| FM, CA..... | Cl I, Div 2, Gp A, B, C, D T5                            |

**Observed authority requirements****Directives**

|           |                              |
|-----------|------------------------------|
| EMC.....  | 2014/30/EU & UK SI 2016/1091 |
| ATEX..... | 2014/34/EU & UK SI 2016/1107 |
| RED.....  | 2014/53/EU & UK SI 2017/1206 |
| RoHS..... | 2011/65/EU & UK SI 2012/3032 |

**Standards**

|                          |                         |
|--------------------------|-------------------------|
| Standard for Safety..... | ANSI/ISA 61010-1 : 2004 |
|--------------------------|-------------------------|

**Bluetooth**

|                          |                          |
|--------------------------|--------------------------|
| Europe, CE.....          | 117-37823-1              |
| USA, FCC.....            | ID QoQBGM111             |
| Canada, IC.....          | 5123A-BGM111             |
| China, SRRC.....         | 2018DJ6574               |
| Australia, RCM.....      | 42 004 182 772           |
| Brazil, Anatel.....      | 06541-18-11723           |
| Japan, MIC.....          | R 209-J00192             |
| Korea, KC.....           | MSIP-CRM-BGT, BGM111     |
| Malaysia, SIRIM QAS..... | RAHY/63M/1020/S(20-4544) |
| Singapore, IMDA.....     | N1861-20                 |
| EAC.....                 | TR-CU 020/2011           |

**Approvals**

|              |                              |
|--------------|------------------------------|
| ATEX.....    | DEKRA 13ATEX0098 X           |
| IECEX.....   | DEK 13.0026 X                |
| UKEX.....    | DEKRA 21UKEX0167X            |
| c FM us..... | FM18US0268X /<br>FM18CA0129X |
| CCC.....     | 2025322310006444             |