



## 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 PReset.

#### 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/)

**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 when installed                              |
| Installation in.....       | Pollution degree 2 & meas. / overvoltage cat. II |

|             |                                                         |
|-------------|---------------------------------------------------------|
| FM, US..... | CL I, Div 2, Gp A, B, C, D T5;<br>CL I, Zn 2, Gp IIC T5 |
| FM, CA..... | CL I, Div 2, Gp A, B, C, D T5                           |

**Mechanical specifications**

|                                           |                       |
|-------------------------------------------|-----------------------|
| Dimensions (HxWxD).....                   | 73.2 x 23.3 x 26.5 mm |
| Dimensions (HxWxD) w/ 4000/9000 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 PR device) |
| Data retention, without power..... | ~ 10 years                                                           |

**Extended EMC immunity: NAMUR**

|                                                     |                          |
|-----------------------------------------------------|--------------------------|
| NE21, A criterion, burst.....                       | No loss of communication |
| Internal battery back-up (for real-time clock)..... | 2 years (@ 25°C)         |
| Calibrated clock accuracy.....                      | <±60 s/year @ 25°C       |
| Bluetooth communication.....                        | BLE 4.2                  |
| Bluetooth radio.....                                | Class 2                  |

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

|           |            |
|-----------|------------|
| EMC.....  | 2014/30/EU |
| ATEX..... | 2014/34/EU |
| RED.....  | 2014/53/EU |
| RoHS..... | 2011/65/EU |

**Bluetooth**

|                      |                      |
|----------------------|----------------------|
| Europe, CE.....      | 117-37823-1          |
| USA, FCC.....        | ID QoQBGM111         |
| Canada, IC.....      | 5123A-BGM111         |
| Japan, MIC.....      | R 209-J00192         |
| Korea, KC.....       | MSIP-CRM-BGT, BGM111 |
| China, SRRC.....     | 2018DJ6574           |
| Australia, RCM.....  | 42 004 182 772       |
| Brazil, Anatel.....  | 06541-18-11723       |
| Singapore, IMDA..... | N1861-20             |

**Standards**

|                              |            |
|------------------------------|------------|
| UL, Standard for Safety..... | UL 61010-1 |
|------------------------------|------------|

**Approvals**

|              |                              |
|--------------|------------------------------|
| ATEX.....    | DEKRA 13ATEX0098 X           |
| IECEx.....   | DEK 13.0026 X                |
| c FM us..... | FM18US0268X /<br>FM18CA0129X |

**I.S. / Ex marking**

|            |                       |
|------------|-----------------------|
| ATEX.....  | II 3 G Ex nA IIC T5 G |
| IECEx..... | Ex nA IIC T5 Gc       |