



## 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; 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 4000 / 9000 device
Max. required power.....	≤ 0.15 W

**Data logging**

Memory.....	100 MB
Capacity.....	> 2.75 million data points (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
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**Approvals**

ATEX.....	DEKRA 13ATEX0098 X
IECEX.....	DEK 13.0026 X
c FM us.....	FM18US0268X / FM18CA0129X

**I.S. / Ex marking**

ATEX.....	II 3 G Ex nA IIC T5 G
IECEX.....	Ex nA IIC T5 Gc