

# Graphite® Module: PROFIBUS Protocol



## PROFIBUS Protocol Communication

The GMPB plug-in module expands the communication capabilities of our Graphite HMI operator interface panels by seamlessly integrating with PROFIBUS DP protocol networks.

Red Lion's GMPB module provides easy integration of Graphite HMIs with PROFIBUS Decentralized Periphery "DP" protocol networks, allowing translation to more than 300 machine protocols. Configure the GMPB module using Red Lion's Crimson® software, which makes setup simple via an intuitive graphical user interface with drag-and-drop functionality.



### Applications

- Factory automation
- Manufacturing
- Oil & gas

### Product Highlights

- Seamless PROFIBUS DP network integration
- Automatic baud rate detection
- Support for over 300 machine protocols
- All-in-one solution

### Features & Benefits

- PROFIBUS DP protocol conversion
  - Easily integrates Graphite units into PROFIBUS DP protocol networks
  - 9-pin serial connector for easy installation
  - Automatic baud rate detection from 9.6 Kbaud to 12 Mbaud
  - Converts between PROFIBUS and more than 300 machine protocols
- All-in-One Solution
  - Removes need for external devices and communication gateways
  - Cost-effectively saves space and time
  - -40° to 75°C T<sub>AMB</sub> Operating Temperature
    - Reliably works in harsh environments
  - Powered from Graphite Host
    - Simplifies deployment by eliminating external power
- Easily Programmed
  - Seamless configuration using Red Lion's Crimson desktop software

# Graphite Module: PROFIBUS Protocol Ordering Guide and Specifications

## Ordering Guide

Part Number	Description
GMPBDP00	Graphite Module, PROFIBUS Protocol Interface

## Module Specifications

### Power

Power will be supplied by the Graphite host device. Some modules, depending on usage may consume high levels of power. This may limit the total number of modules that can be installed on a single Graphite host. Check the Graphite module and Graphite host data sheets for specific usage and power requirements.

**GMPB Max Power: 2.6 W**

### LEDs

STS - Status LED shows module condition.

DP - LED shows communications state.

WD - LED shows communications state.

DATA - LED shows data exchange.

### Communications

PROFIBUS Port: FIELDBUS TYPE: PROFIBUS-DP per EN 50 170.

Baud Rates: 9.6 KBaud to 12 MBaud, auto baud rate detection.

Station Address: software programmable in the range 1 to 125.

Output Power: +5 VDC @ 90 mA max. on the D-Sub connector pins 5 (GND) and 6 (+5 V).

Network Isolation: 500 Vrms @ 50/60 Hz for 1 minute between PROFIBUS-DP network and Graphite host.

### Environmental Conditions

Operating Temperature Range:  $-40$  to  $+75^{\circ}\text{C}$   $T_{AMB}$ , or lowest range among equipment used in your Graphite system. Consult the user manual or [www.redlion.net/Optemp](http://www.redlion.net/Optemp) for further details.

Storage Temperature Range:  $-40$  to  $+85^{\circ}\text{C}$   $T_{AMB}$   
Operating and Storage Humidity: 85% max relative humidity, non-condensing.

Altitude: Up to 2000 meters

### Certifications and Compliances

#### CE Approved

EN 61326-1 Immunity to Industrial Locations

IEC/EN 61010-1

RoHS Compliant

#### ATEX/UKEX Approved

⊕ II 3 G Ex nA IIC T4 Gc

DEMKO 14 ATEX 1387X

EN 60079-0, -11, -15, -31

UL23UKEX2879X

#### IECEx Approved

Ex nA IIC T4 Gc

IECEx UL 15.0035X

IEC 60079-0, -11, -15, -31

#### India PESO Approved:

A/P/HQ/MH/104/7441 (P549599)

#### UL Listed: File #E302106

#### UL Hazardous: File #E317425

ABS Type Approval for Shipboard Applications

### Construction

Case body is all metal construction.

### Connections

Pluggable DB9F connector.

### Mounting

Screws to host.

### Weight

8 oz (224 g)

### Warranty

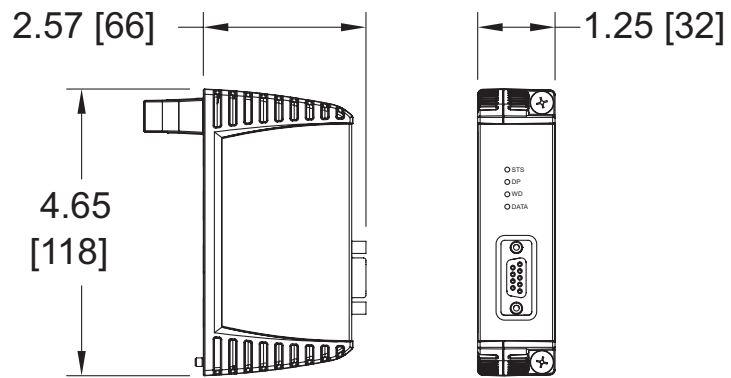
2 years on design and manufacturing defects.

Specifications are subject to change.

Visit [www.redlion.net](http://www.redlion.net) for more information.

# Graphite Module: PROFIBUS Protocol Dimensions

## Dimensions In inches [mm]





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