

## Advanced Process Control Instruments Family

### FEATURES

- Wide variety of communication options: Ethernet, RS485, USB, Fieldbus, analog output
- Set-up and diagnostics through embedded web server
- Up to 8x 350  $\Omega$  load cells
- 24-bit resolution, 2400 samples per second, 300 updates per second.
- Easy parameters backup and restore via USB port, or SD card or internal memory.
- Flexible digital I/Os
- Graphical user interface, monochrome OLED display
- DIN rail mount enclosure

### APPLICATIONS

- Process weighing and control
- Force measurement
- High speed dynamic measurement
- Factory automation

### DESCRIPTION

The BLH Nobel G5 process control instrument offers high speed and high-performance control for industrial weighing and force measurement. G5 units set new performance standards geared towards your application demands of today while meeting tomorrow's expanding requirements. G5 offers a highly flexible instrument for your process automation needs.

A monochrome OLED display provides good visibility of process data such as weight and status. The advanced display and functional keypad allow easy navigation through parameters, menus and settings.

A built-in web server facilitates quick and easy operation and simplifies parameter changes through any



web-supporting device. The web pages display weight and status, as well as parameters and diagnostics information.

Flexible digital inputs and outputs can be configured according to your specific needs.

Several industrial communication interfaces such as Ethernet, RS485 and optional fieldbuses are available, each complying with industry standard protocols. Analog output (current or voltage) is available as well.

Software upgrades can easily be installed in the field using a SD card.

The G5-RMD's durable plastic enclosure is IP20 rated.

The unit is designed for 24 Volt DC operation.

BLH Nobel designs and customizes software for special applications upon request. Contact BLH Nobel for more information.

### CONFIGURATION



Vessel on 4 load cells



Junction box



G5-RMD



PC or PLC interface

## Advanced Process Control Instruments Family

| SPECIFICATIONS                                 |                                                                                     |
|------------------------------------------------|-------------------------------------------------------------------------------------|
| PARAMETER                                      | VALUE                                                                               |
| <b>WEIGHT/FORCE INPUT</b>                      |                                                                                     |
| Scale/platform support                         | Up to 8x 350 $\Omega$ load cells                                                    |
| Excitation                                     | 10 VDC                                                                              |
| Load cell input range                          | $\pm 3$ mV/V                                                                        |
| Sensitivity                                    | 0.3 $\mu$ V                                                                         |
| A/D conversion                                 | 24 bits, 2400 samples/second                                                        |
| Update rate                                    | 300 updates/second                                                                  |
| Zero drift                                     | <10 nV/V/ $^{\circ}$ K                                                              |
| Span drift                                     | <2 ppm/ $^{\circ}$ K                                                                |
| Filter                                         | Digital, 0.125 Hz to 50 Hz bandwidth, damping >70 dB at 150 Hz                      |
| <b>INTERFACES</b>                              |                                                                                     |
| Ethernet                                       | Process data and control, set-up and file transfer                                  |
| Protocol                                       | Modbus TCP, http, ftp                                                               |
| Set-up and diagnostics                         | Using web server                                                                    |
| RS485 port                                     | Isolated, for process data and control                                              |
| Protocol                                       | Modbus RTU                                                                          |
| Baud rate                                      | Up to 115 kbaud                                                                     |
| Insulation                                     | Operational                                                                         |
| Field bus options                              | For process data and control                                                        |
| Protocol                                       | ProfibusDP, PROFINET, DeviceNet, ControlNet, Ethernet/IP                            |
| USB                                            | For parameters backup and restore                                                   |
| Type                                           | Type 2                                                                              |
| SD card slot                                   | For files and program upgrade                                                       |
| <b>ANALOG OUTPUT</b>                           |                                                                                     |
| Current loop mode                              | 4–20 mA, 0–20 mA, $\pm 20$ mA, max load — 500 $\Omega$ , isolated                   |
| Voltage mode                                   | 0–10 V, $\pm 10$ V, min 1 k $\Omega$ load, isolated                                 |
| <b>USER INTERFACE</b>                          |                                                                                     |
| Display                                        | Monochrome OLED 128 x 32 pixel 55 x 13 mm                                           |
| Keyboard                                       | 4 membrane keys                                                                     |
| <b>DIGITAL I/O</b>                             |                                                                                     |
| Inputs                                         | 4, 24 VDC, common return, isolated                                                  |
| Outputs                                        | 4, 24 VDC, 0.1 A max, common return, isolated                                       |
| <b>ENVIRONMENTAL CONDITIONS</b>                |                                                                                     |
| Operating temperature                          | –10 to +55 $^{\circ}$ C, 14 to 131 $^{\circ}$ F                                     |
| Storage temperature                            | –25 to +85 $^{\circ}$ C, –13 to 185 $^{\circ}$ F                                    |
| Humidity                                       | Up to 85%, non-condensing                                                           |
| Ingress protection                             | IP20                                                                                |
| EMC, safety                                    | CE (Industrial)                                                                     |
| <b>POWER</b>                                   |                                                                                     |
| DC power option                                | 18–32 VDC, 12 W                                                                     |
| <b>MECHANICAL INTERFACE</b>                    |                                                                                     |
| Enclosure type                                 | DIN rail mount, plastic                                                             |
| Dimensions WxHxD                               | 95 x 162 x 100 mm, 3.7 x 6.4 x 3.9 inch (not including mating connectors or cables) |
| <b>APPROVALS—CONTACT BLH NOBEL FOR DETAILS</b> |                                                                                     |

BLH Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly.

## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase.

**To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.