BLH NOBEL
A VPG Brand

G6-RM

ADVANCED PROCESS CONTROL INSTRUMENTS FAMILY

FEATURES

- DIN Rail mount
- Modular system with flexible configuration
- Up to 6 weighing / force measurement channels per unit
- Synchronized sampling of all channels
- Fast update rate – up to 800 updates per second
- Easy access to service and control panel
- Integrated flexible digital I/O
- Communication: Ethernet, Profibus, PROFINET, DeviceNet, Modbus, USB, RS485, Modbus/TCP, EtherNet/IP
- Easy parameter backup and restoration via USB port or internal memory



DIN-Rail Mount Unit

CE

APPLICATIONS

- Process weighing and control
- Force measurement
- Web tension measurement and control
- Automation
- Force vector calculations
- High dynamic force measurement
- High speed batching / blending systems

DESCRIPTION

The BLH Nobel G6-RM family of process control instruments offers high speed, high performance control for industrial weighing and force measurement applications plant wide. G6-RM units set new standards geared for today's application demands and tomorrow's expanding requirements.

G6-RM instruments accommodate up to three different, easily installed, modules for advanced performance, more functional channels, custom applications, or repair. This provides customers with a highly flexible, upgradeable, single instrument system capable of weighing up to six independent vessels or scales. For web tension applications, up to six zones (rolls) can be monitored simultaneously. Inputs and outputs can be configured according to customer requirements.

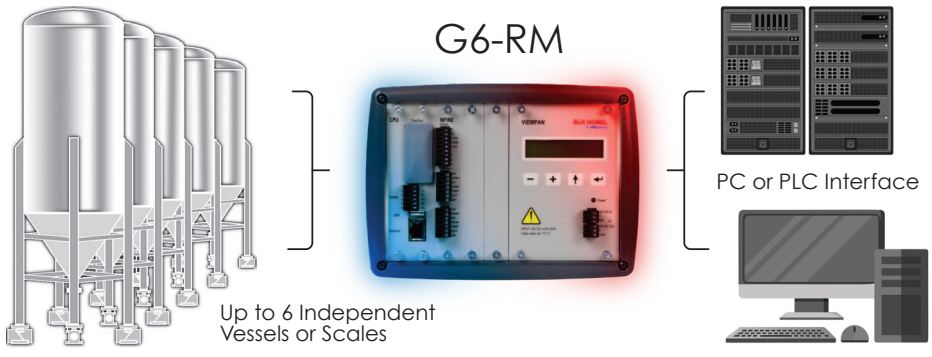
A wide variety of industrial communication interfaces (Ethernet, RS485), Protocols (Modbus RTU, Modbus TCP, EtherNet/IP) and Fieldbuses (Profibus, PROFINET or Devicenet) are available.

Software upgrades can be downloaded to the instrument from our website, or be transferred to the G6-RM unit via a standard USB port connection.

Custom software designed to customer requirements for special applications is available upon request.

DIN Rail mount units are rated IP20. Power supply is 24 VDC.

CONFIGURATION



Technical contact: blhnobel.usa@vpgsensors.com,
Europe: blhnobel.eur@vpgsensors.com, Asia: blhnobel.asia@vpgsensors.com

SPECIFICATIONS

PARAMETER	VALUE
Enclosure types	DIN
Dimensions W × H × D	229 × 168 × 145 mm
Enclosure design	Aluminum housing
ENVIRONMENTAL	
Temperature range – Rated performance	–10 to +50°C
Temperature range – Storage	–25 to +85°C
Protection	IP20
EMC	Class A group 1 equipment, industrial electromagnetic environment (acc. to EN 61326-1:2013)
Markings	CE
Display	2 × 16 character LCD with backlighting
Keyboard	4 membrane keys
POWER	
DC SUPPLY module	24VDC ±15%, 40 W
CPU MODULE	
Interfaces	Isolated
RS485 port	For process data and control
Protocol	Modbus RTU
Baud rate	Up to 115 kbaud
USB, supported units	Version 2.0
Keyboard	USB keyboard for PC
Memory stick	USB type for PC For backup and restore of set-up parameters. For change to a new program version
Ethernet	For process data and control
Protocol	Modbus TCP and EtherNet/IP
Field bus or Industrial Ethernet, Optional	For process data and control
Available field busses	Profibus, PROFINET or DeviceNet

PARAMETER	VALUE
WFIN1 (1 INPUT) AND WFIN2 (2 INPUTS) WEIGHT/FORCE INPUT MODULES	
Max. no. of load cells	8 per channel
Excitation voltage	5 VDC
A/D conversion	3.9 kHz, 16,000,000 units (24 bits)
Input range	±7 mV/V
Update rate	2.3 to 300 readings per second
No. of weight channels	Up to 6 channels
Sensitivity	0.1 µV
Zero drift	<10 nV/V/K
Span drift	<2 ppm/K
Digital I/O	4 inputs, 24 V, isolated with common return 2 outputs, 24 V, max. 100 mA, isolated with common return
HSWF2 HIGH SPEED WEIGHT/FORCE INPUT MODULE	
Max. no. of load cells	4 per channel
Excitation voltage	10 VDC
A/D conversion	20 kHz, 16,000,000 units (24 bits)
Input range	±4.5 mV/V
Update rate	12.5 - 800 readings per second
No. of weight channels	Up to 6 channels
Sensitivity	0.1 µV
Zero drift	<10 nV/V/K
Span drift	<2 ppm/K
Digital I/O	4 inputs, 24 V, isolated with common return 2 outputs, 24 V, max. 100 mA, isolated with common return
DIO8 MODULE, DIGITAL INPUT AND OUTPUT MODULE	
Separate I/O module	2 units can be used
Type	8 inputs, 24 V, isolated with common return 8 outputs, 24 V, max. 100 mA, isolated with common return
AOUT1 / AOUT4 ANALOG OUTPUT MODULES	
Number of channels	1 or 4, separately isolated channels
Resolution	65,000 units, 16 bits
Voltage output	0 to 10 V, –10 to 10 V, >1 kΩ load
Current output	4 to 20 mA, 0 to 20 mA, –12 to 20 mA or –20 to 20 mA <500 Ω load
Update rate	Analog input update rate, adjustable smoothing filter

ORDERING INFORMATION

Part Number Nomenclature: G6-RM-FB-S1-S2-S3-P-SW

Code	Type	Part Number Reference	Description
G6	Instrument type	G6	—
RM	Enclosure type	RM	Rail mount
FB	Fieldbus interface	0 P N D	None Profibus PROFINET DeviceNet
Si	Slot 1 to 3 type	0 2 3 4 6 7 8	Blank HSWF2—High speed weight/force, dual input module WFIN1—Weight/force, single input module WFIN2—Weight / force, dual input module AOUT1—Analog output, single channel AOUT4—Analog output, 4 channels DIO8—Digital input and output module
V	User interface and power	V	Viewpan, 24 VDC
SW	Software version	W F S	Weighing Force Special version (contact factory for option code)

Example of actual part number: G6-RM-0-4-8-0-V-F

Where:

G6 instrument (G6)

DIN Rail mount (RM)

No field bus or special protocol (0)

Slot 1 = WFIN1 (4)

Slot 2 = DIO8 (8)

Slot 3 = Blank (0)

Power = Viewpan (V)

F = Force software version

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