

ProTech-GII

Overview

Woodward is releasing new ProTech®-GII models on 17 May 2013. These new models include the same basic functionality as current ProTech-GII models, and include the improvements listed below as well as new capabilities.

In an effort to minimize the risk of future application issues, and since the new/improved models are direct drop-in replacements for the existing models, Woodward plans to change all existing models to “non-preferred” on 15 July 2013, and all new models to “preferred”. Refer to Table 1 below for specific part-number information. Depending on the migration rate to the new ProTech-GII models, Woodward plans to inactivate all old non-preferred models within the next 12 to 18 months. Please inform affected purchasing teams and customers accordingly.

Product Change / Improvement

The below listed “preferred” models include the following changes, improvements, and additions:

1. All module speed inputs are shared with all other modules (A, B, C).
2. All module trip and alarm latch output statuses are shared with all other modules (A, B, C).
3. All module “Start”, “Reset”, and “Speed Failed Override” commands are shared with all other modules (A, B, C).
4. Added Speed Redundancy Manager Block:
 - With all input sensors/channels healthy, each module to be configured to select the desired speed (median, HSS, or LSS) to use for its alarm and trip logic.
 - Upon one failed input sensor/channel, each module to be configured to select the desired speed (HSS or LSS) to use for its alarm and trip logic.
 - Upon two failed input sensors/channels, each module to be configured to select the desired action (issue a trip command or use healthy speed input sensor/channel for its alarm and trip logic).
 - Allows users to configure the use of 3 or 2 or 1 speed input sensors/channels.
 - Includes “Speed Difference Detection” alarm function. Note that this feature can be easily used to assist in detecting a failed active or passive speed sensor.

Note: New speed redundancy manager logic allows users to configure the voting logic to meet Shell's 2-out-of-2 voting requirement when only two inputs are available/healthy.
5. Added Acceleration Redundancy Manager Block:
 - With all input sensors/channels healthy, each module to be configured to select the desired acceleration rate (median, HSS, or LSS) to use for its alarm and trip logic.
 - Upon one failed input sensor/channel, each module to be configured to select the desired acceleration rate (HSS or LSS) to use for its alarm and trip logic.
 - Allows users to configure the use of 3 or 2 or 1 speed input sensors/channels.
6. Added Boolean Input Manager Functions:
 - Each of the ProTech-GII's contact/Boolean inputs (Start, Reset, and Speed Failed Override) can be configured to use the respective contact/Boolean input command from any or all of the other modules.
 - When configured, any or all of the configured discrete input commands are “ORed” together. Example—If module A's “Reset” function is configured to use module A's and module B's “Reset” contact input commands, then a “Reset” command received from the A or B module will activate module A's Reset logic.
 - Boolean Input Manager functions can only be configured from the ProTech-GII's PCT software service tool.
 - The ORed Boolean Input Manager functions, if configured, only manage the action of a module's contact inputs commands. The Reset and Start keys on the module's front panel function independently of the Boolean Input Manager and only affect the respective module's action.

7. Added configurable “Failed Power Supply #1” and “Failed Power Supply #2” Alarm Override functions.
 - Allows users to configure the module to accept only one power supply, thus removing a nuisance Failed Power Supply Alarm indication.
8. Changed Speed Fail Alarm function to be overridden during the turbine start state/mode.
 - This removes a nuisance alarm during a turbine start-up.
9. Changed Speed Lost Alarm/Trip threshold level from 100 Hz to 200 Hz to reduce/remove nuisance alarms/trips when applied with speed gears that have less than 60 teeth and turbines that can slow roll at low speeds.
10. Changed the name of “Periodic Overspeed Test” to “Auto Sequence Test”.
11. Added an option to start the Auto Sequence Test Routine from the Auto Sequence Test screen. This allows a user to instantly start the Auto Sequence Test function when desired.
12. Added an option to disable Auto Sequence Test routine from the Auto Sequence Test screen. This allows a user to disable the Auto Sequence Test function from being performed. Since the Auto Sequence Test routine can be configured to be performed on a periodic basis, the “Disable” function allows users to temporarily disable the periodic test routine from being performed when desired.
13. Added an Auto Simulated Speed Test Failed Alarm to indicate the failure of the Auto Simulated Test routine.
14. Added a configurable permissive for any Test routine, which will not allow the Test function to be started if any other module has an “Alarm” condition active. Users now have the following configurable Test “permissive” options: None, Module Not Tripped, or Module Not In Alarm. If configured, the test routine’s permissive logic does not allow a module’s Test function to operate if any module is in its Tripped or Alarmed State (user configurable).
15. Added the ability to configure/select the screen to be shown as the Home Screen.
16. Added a configurable option to not jump to Home Screen on a trip condition.
17. Added an Overspeed Setpoint analog read value/register to Modbus® * communications.

* Modbus is a trademark of Schneider Automation Inc.
18. Added the ability to configure the module’s Trip Latch function to be latching or non-latching.
19. Added the option to configure a module’s Speed Probe Type to “Passive”, “Active”, and “Not Used”. The “Not Used” option allows users to wire two speed probes into only two of the ProTech-GII modules, and not have related nuisance alarms.
20. Added Date & Time Stamp information to the Peak Speed/Acceleration Log.
21. Added a configurable option to include the module’s trip state into the module’s Alarm Latch logic. This capability allows any module trip to be indicated as a module Alarm condition also and functions the same as the original ProTech 203 logic.
22. Added an option for users to issue a module trip command when entering the module’s “Configuration” mode. Note: Entry of the “Configuration Level” password is required for users to issue module trip command from the module’s front panel.
23. Added a configuration change time stamp function which records and displays the date and time of the last configuration change was saved to memory (via the front panel or service tool).

Preferred Model Numbers

The following table shows the new “preferred” ProTech-GII part numbers:

Description	Non-Preferred Part Number	Preferred Part Number
ProTech-GII – Bulkhead Mount, HV/LV, ind. relay	8237-1244	8237-1594
ProTech-GII – Bulkhead Mount, HV/HV, ind. relay	8237-1245	8237-1595
ProTech-GII – Bulkhead Mount, HV/LV, voted relays	8237-1246	8237-1596
ProTech-GII – Bulkhead Mount, HV/HV, voted relays	8237-1247	8237-1597
ProTech-GII – Bulkhead Mount, HV/HV, voted relays – limited front panel config.	8237-1656	8237-1597
ProTech-GII – Panel Mount, HV/LV, ind. relay	8237-1367	8237-1598
ProTech-GII – Panel Mount, HV/HV, ind. relay	8237-1368	8237-1599
ProTech-GII – Panel Mount, HV/LV, voted relays	8237-1369	8237-1600
ProTech-GII – Panel Mount, HV/HV, voted relays	8237-1370	8237-1601
ProTech-GII – Panel Mount, HV/HV, voted relays – limited front panel config.	8237-1660	8237-1601
Spare Module for ProTech models 8237-1596 & 8237-1600	5437-1119	5437-1124
Spare Module for ProTech models 8237-1597 & 8237-1601	5437-1120	5437-1125
Spare Module for ProTech models 8237-1594 & 8237-1598	5437-1121	5437-1126
Spare Module for ProTech models 8237-1595 & 8237-1599	5437-1122	5437-1127

Table 1. Preferred ProTech-GII Part Numbers

Customer Action

1. Customers who are currently using a “non-preferred” ProTech-GII model and do not require any of the above listed changes/improvements should take no action. Woodward is committed to supporting the listed “non-preferred” models for a period of 20 years after inactivation. Refer to the related product support plan for these models.
2. It is recommended that customers who are purchasing ProTech-GII units for use in new applications order part numbers from only the “preferred” part-number list.
3. Customers who have a “non-preferred” ProTech-GII model but wish to have/utilize one or more of the above listed changes/improvements can return their ProTech-GII unit(s) to Woodward/Fort Collins, Colorado, USA, for a conversion to the changed/improved part number at a cost of US\$1750 per unit. Please contact your Woodward representative after 17 May 2013 to schedule model conversions.



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Complete address / phone / fax / email information for all locations is available on our website.