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C. Control and Signal Modules

VG3—Discrete PROFIBUS Pass-through Module

1. Product Overview

The Discrete PROFIBUS Pass-through Modules are required to provide a means for the customer to communicate through the Tool Changer. Refer to Section 8—Drawing or wiring information.

PROFIBUS connectors are provided for interfacing on the Master and Tool modules. When the Tool Changer is coupled, the Master and Tool electrical modules communicate with each other using a spring loaded pin block. A flexible boot surrounds the pin block to seal the connection from moisture and liquid while coupled.

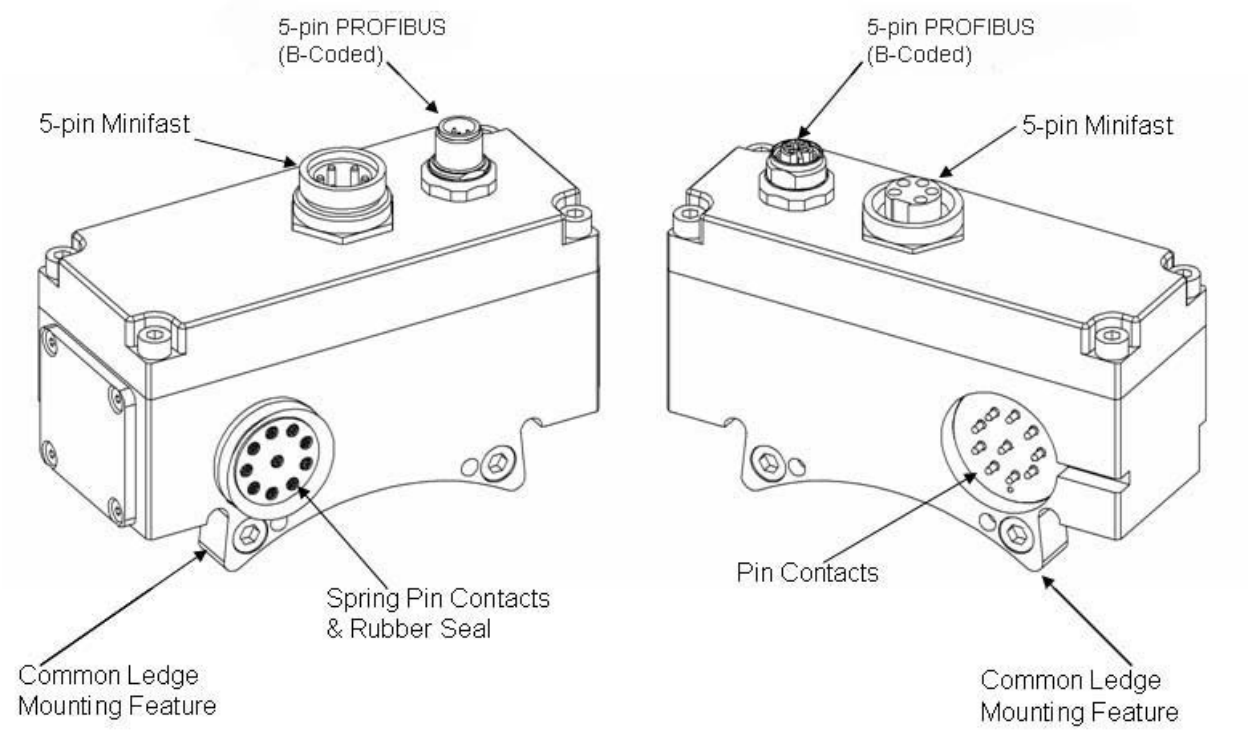

Figure 1.2—Discrete PROFIBUS Pass-through Module (VG3)

2. Installation

The Discrete PROFIBUS Pass-through Modules are typically installed by ATI prior to shipment. The steps below outline the field installation or removal as required.

DANGER: Power and air should always be removed prior to maintenance or repair.

2.1 Installing

1. It may be necessary to clean the mounting surface on the Tool Changer prior to installing the module in order to remove any debris that may be present.
2. Apply Loctite-222® (or similar) thread locker to the socket head cap screws and tighten using a hex key.

2.2 Removal

1. All customer connections up to the module need to be disconnected.
2. Remove the socket head cap screws and pull the module off the Tool Changer.

3. Operation

VG3-M Discrete PROFIBUS Pass-through Module passes signals to the tool module when coupled.

4. Maintenance

Contact pins on the control module should be inspected and cleaned periodically to ensure electrical continuity is maintained. Care should be taken not to bend or pull out the contacts when cleaning. Do not use an abrasive media to clean the contact pins as erosion may occur to the contact surface.

5. Troubleshooting

Symptom	Possible Cause / Correction
Loss of Communication	Check/Replace cabling up- and down-stream of the Tool Changer modules. Inspect Discrete PROFIBUS Pass-through Module contact pins for debris/wear.

6. Recommended Spare Parts

Assembly	Part Number	Description
VG3 Discrete PROFIBUS Pass-through Module Master	9120-VG3-M	Discrete PROFIBUS Pass-through Module Master
	4010-0000030-01	V-Ring
	9005-20-1198	Master Cleat Sub-assembly
VG3 Discrete PROFIBUS Pass-through Module Tool	9120-VG3-T	Discrete PROFIBUS Pass-through Module Tool
	9005-20-1199	Tool Cleat Sub-assembly

7. Specifications

Discrete PROFIBUS Pass-through Module

VG3-M/VG3-T Discrete PROFIBUS Pass-through Module with signal pass-through for customer use.

Weight (coupled) 2.66 lbs. (1.21 kg) VG3-M, VG3-T

Pass-Through Signals

VG3-M, VG3-T 10 @ 4 Amp, 24VDC Turck Minifast 5-pin Male RSFL-56
Master Side (Power)
Turck Minifast 5-pin Female RKFL-56
Tool Side (Power)

PROFIBUS 5-pin Male FSFDLW4.5 B-coded
Master Side
PROFIBUS 5-pin Female FKFDLW4.5 B-coded
Tool Side

8. Drawings

Drawings are available on the ATI website or by contacting an ATI representative.