

# Converting LVDT to IA







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#### **VeriFast Integrated Amplifier**

## Why Migrate to IA?

- Enhanced Design. VeriFast™ IA boasts design improvements that lead to reduced integration time and easier maintenance. Featuring sturdier construction, thicker coil wires, soldered connector, and low pressure molded.
- Identical Mechanical Dimensions. VeriFast™ IA weld bodies maintain the same mechanical dimensions as LVDT weld bodies, ensuring seamless compatibility.
- Reduced Installation Time. The Integrated Amplifier simplifies the setup and integration process, reducing installation time. They can be wired directly to analog field blocks.
- No Calibration. Pre-calibrated and preset coils eliminate the need for calibration. VeriFast™ IA weld bodies come with an integrated analog amplifier, eliminating the need for a separate signal conditioner. Calibration is not required.
- Improved Support. VeriFast™ IA's design leads to easier troubleshooting, reducing downtime and support-related challenges.
- Reduce Operational Costs. VeriFast™ IA's enhanced design and pin cost improvements provide long-term cost savings.
   Similar pricing per point as LVDT, with a seamlessly crimped core, resulting in a cost reduction of \$40 CAD/pin.
- IA MicroView. New versions are available for seamless integration with IA weld bodies.
- Dedicated and Interchangeable Weld Bodies. VeriFast™ IA offers dedicated and interchangeable weld bodies to cater to different welding needs. All current weld body styles are accessible and serve as straightforward replacements for LVDT weld bodies.



# **VeriFast IAdapt Module**

The VeriFast IAdapt Module is designed to *replace* the Signal Conditioner when converting existing machinery from LVDT to IA weld bodies. This module facilitates pass-through connections, eliminating the requirement for rewiring the control panel. The IAdapt becomes essential only in cases of LVDT to IA conversion where the customer prefers to avoid rewiring. To complete the process, simply disconnect the four colored Signal Conditioner terminals, uninstall the Signal Conditioner, install the IAdapt module, and then reattach the four terminals. This method of reusing the existing terminals not only saves time but also helps prevent wiring errors during the conversion.

- No re-wiring necessary. Unplug the 4 connectors from the Signal Conditioner, remove it, install the IAdapt and re-connect the 4 connectors.
- PLC programming is not required. Weld pin positions will need to be retaught, and maybe tolerance windows adjusted.
- Physically change the LVDT weld body with the IA body, which connects to the existing wiring.

Please visit our website. Products/VeriFast IA/LVDT weld body user manuals <a href="https://www.cntrline.com/products/verifast-ia">https://www.cntrline.com/products/verifast-ia</a>

IAdapt Module 617-07160

Important: Under specific conditions, FlexFast Machines can be modified to support fixtures with IA Weld Bodies and fixtures with LVDT Weld Bodies. It's essential to note that the fixture must consist entirely of either IA or LVDT components; a mix of IA and LVDT on the same fixture is not allowed. Contact CenterLine for evaluation of your FF Machine.



#### **FlexFast**

Two options exist for converting a FlexFast from LVDT to IA: (Plus changing the weld bodies)

- a) Replace the QBridge FF with a QBridge Analog. This also requires changing the cable from the QBridge to the machine and re-wiring the panel end. This prevents the fixture from being confused with an LVDT fixture, (if used in multiple machines.) This only works if ALL LVDT's on the FlexFast are being replaced.
- b) Add a QBridge Analog (614-61573) block and wire in a separate cable. This allows the use of both the LVDT fixtures with one Harting connector, and the IA fixtures with a different Harting connector.





IAdapt Module 617-07160



QBridge Analog 614-61573

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#### **User Installed**

Two options exist for converting a User Installed LVDT to IA: (Plus changing the weld bodies)

- **Replace** the Signal Conditioners with IAdapt modules. (617-07160) This allows the wiring to remain the same.
- **b) Replace** or re-do the wiring. LVDT's are wired to the Signal Conditioner and the analog signal leaves the signal conditioner and goes to the analog card. The IA signal goes directly to the card, and sometimes the original wires will not reach. Up to the user how to address this.





IAdapt Module 617-07160



#### **NetLink**

Two options exist for converting an LVDT to IA when using NetLink: (Plus changing the weld bodies)

- a) Replace the Signal Conditioners with IAdapt modules. (617-07160) This allows the wiring to remain the same.
- b) Rewire the IA body directly to the field block. Two options also exist for this.
  - Use an analog input on a field block. A cross over cable may be necessary. (617-02129) This is dependent on the type of field block used
  - ii. Use I/O Link on a Balluff field block. This requires using a Balluff I/O Link Interface (614-51718) and a cross over cable. (617-02129)





IAdapt Module 617-07160





#### **MicroView**

If using MicroView, replacement is the only option for converting from LVDT to IA. (Plus changing the weld bodies)

There are 6 versions of MicroView that are compatible with IA. See chart below. When replacing the MicroView, all wiring can remain.

LVDT Version		Equivalent IA Version	
Smart Number	3 x 5 Part Number	Smart Number	3 x 5 Part Number
VFMV-V1-A-A	420-70823	VFMV-V1-D-D	420-77699
VFMV-V1-A-B	420-70824	VFMV-V1-D-B	420-77700
VFMV-V1-A-C	420-70825	VFMV-V1-D-C	420-77702
VFMV-V1-D-S*	420-72321	VFMV-V2-D-B	420-77704
VFMV-V2-A-A	420-73061	VFMV-V2-D-D	420-77703
VFMV-V2-A-B	420-73062	VFMV-V2-D-B	420-77704
VFMV-V2-A-C	420-73063	VFMV-V2-D-C	420-77705

<sup>\*</sup> GM specific version





V1 = Hard wired

A = LVDT

B = LPT

D = IA

C = Analog

V2 = Connectorized



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