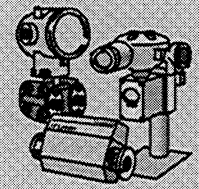


## Multi-Variable Analog Interface for Smart Transmitters



### DESCRIPTION

The **MVA, Multi-Variable Analog** interface for smart transmitters converts a single transmitter's digital PV or SV signals into four (4) 1-5 volt analog signals. Each module's output is factory characterized to an accuracy of 0.045%.

In addition to analog outputs, a "smart status" relay output is provided that is derived directly from the transmitter's digital status.

The **MVA** provides a cost effective way to interface into analog instrumentation while utilizing all the advantages of Honeywell's DE digital communications.

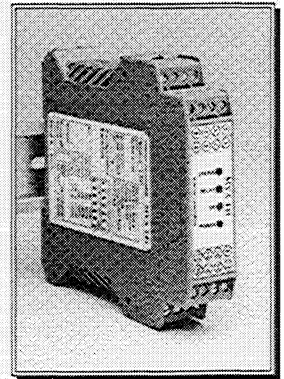
The **MVA** is fully compatible with all single and multi-variable DE transmitters. It can be used in conjunction with any of the DE control system interfaces. In addition, handheld communicators may be used with NO disturbances to the analog outputs or status.

The **MVA's** compact module design is suitable for DIN rail mounting and can be conveniently mounted in close proximity to the analog instrumentation.

The **MVA** operates from a single +24VDC source and is internally short-circuit protected. All connectors are screw compression type and removable.

### FEATURES

- ◆ 4 analog outputs (PVs or SVs).
- ◆ Independent transmitter status relay output.
- ◆ Use with single or multivariable transmitters.
- ◆ "Smart status" LED indicator.
- ◆ Configurable burnout and forced I/O manual mode action.
- ◆ Modular DIN rail mount.
- ◆ Test mode.
- ◆ Compatible with 4 or 6 byte DE protocol modes.



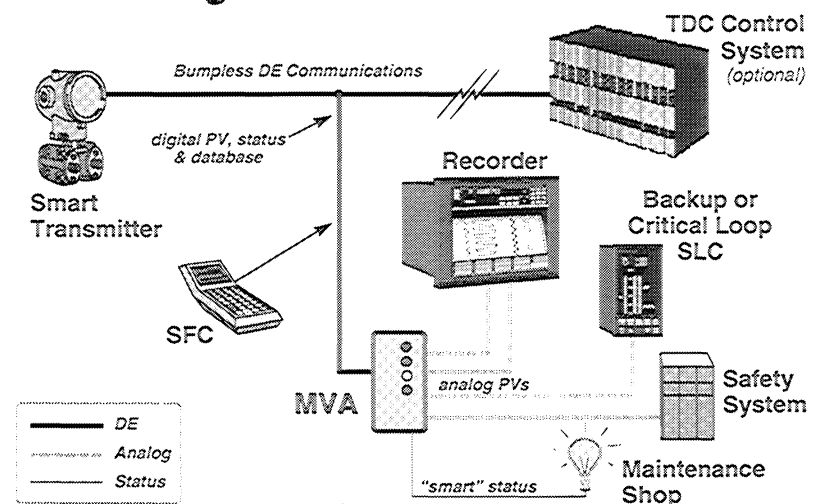
### ADVANTAGES

- ◆ Does NOT require external configuration tools.
- ◆ Enables non-bumping communications.
- ◆ Compatible with all control system DE input cards.
- ◆ No calibration required.

### BENEFITS

- Allows mixing of DE and analog instrumentation:
  - Recorders
  - Controllers
  - Trip Switches
  - Safety Systems
  - Indicators
- Expands functionality while maintaining full digital integration.
- Leverages wiring savings associated with multivariable transmitters.
- Capitalizes on "smart status" capability.
- Economically extracts PVs and SVs.
- Enables full digital, non-bumping communications for any application.
- Enables stand-alone digital operation.

### Digital Control Integration with Analog Instrumentation . . .



# Vektron Corporation

## Industrial Interfaces

1051 County Line Road  
 Huntingdon Valley, PA 19006-1229  
 Tel: 215/396-9088 Fax: 215/396-2872  
 vektron@voicenet.com

## SAFETY SYSTEM ADVANTAGES

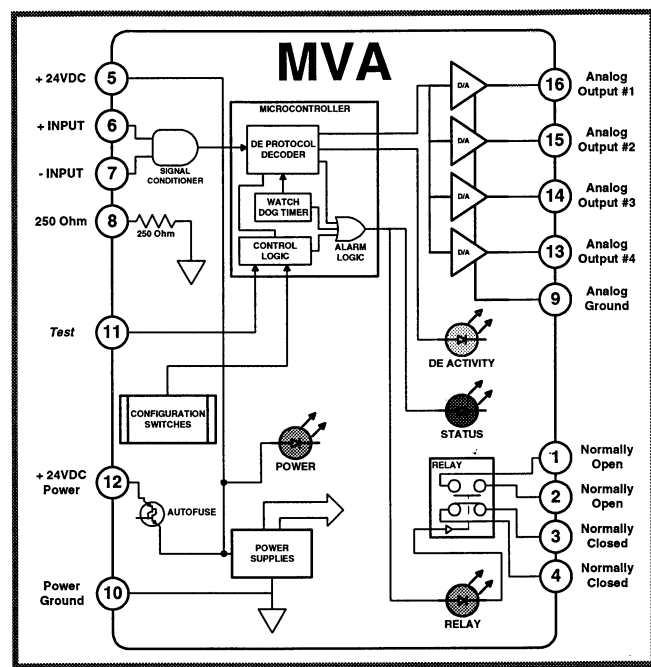
- The MVA is a cost effective means of integrating digital transmitters with safety systems.
- The MVA's "smart status" output enhances the speed at which safety shutdown systems are able to respond by tracking the transmitter's PV/SV status, device STATUS, DE signal integrity and positive contact output.
- Fully supports forced I/O manual mode for validation testing of safety shutdown system.

## COMPATIBILITY

The MVA module is fully compatible with all Honeywell DE products, all 3rd party DE products, commercially available "smart" safety barriers and carries the CE mark.

## ORDERING INFORMATION

MODEL: MVA-141



## Specifications:

# Input Channels:	1
Input Type:	Honeywell DE, 4 or 6 byte, multivariable broadcast formats A thru F <i>[listen only]</i>
Input (Loop) Loading:	10 Kohms, min.
Analog Outputs:	4 @ 1-5 volts, nom. $\pm 10\%$ over/under-range, min.
Analog Output Accuracy:	$\pm 0.045\%$ F.S., into 10 Kohms load, min.
Analog Output Throughput Delay:	50 msec., max. to 99% of new PV/SV value
PV/SV Selection:	PV1, PV2, PV3, PV4 or SV1 (switch configurable)
Status Relay: (Type) (Action)	1 Form A and 1 Form B, 5A @ 24VAC/DC, 120/240VAC Relay energized when "smart status" = good. Relay de-energized when "smart status" = bad.
"Smart Status":	Transmitter status, forced I/O manual mode <sup>1</sup> , DE signal integrity, MVA test mode and MVA fault.
LED Indicators (4): POWER RELAY DE STATUS <sup>2</sup>	Green: <u>ON</u> when +24Volt power is present. Green: <u>ON</u> when NOT tripped (relay energized) and "smart status" = good. Yellow: <u>ON</u> when DE signal is present. Red: <u>BLINKS</u> when "smart status" = bad (relay de-energized, tripped). <u>ON</u> steady for MVA fault. <u>OFF</u> when "smart status" = good (NOT tripped).
Fault State:	All analog outputs = burnout High/Low/LKG and STATUS relay is de-energized, tripped.
Test/Validation Mode:	Trips relay (de-energized), LEDs indicate BAD status, all analog outputs forced to 3.00 volts
Field Communicator Interaction:	No change to PV/SV value or Status state. Value may be a delayed due to interleaved communications.
Power Supply:	+18VDC to +30VDC, +24VDC nom. @ 80mA. typ (excludes transmitter)
Connectors:	Screw type, compression, removable, keyed
Module Size:	Approx. 4.5"(H) x 0.88"(W) x 3.9"(D)
Operating Temperature:	0°C to +60°C, ambient
Mounting:	35mm DIN rail (top hat, EN50022)
Regulatory Approvals:	CE Mark

Note 1: Transmitter forced I/O manual mode response action is user configurable on the MVA

Note 2: The STATUS relay is de-energized (tripped) on transmitter status of CRITICAL, NON-CRITICAL, BAD PV, FORCED I/O MODE, no DE, missing PV/SV or MVA fault.

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MVA\_SPEC.DOC  
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vektron@voicenet.com