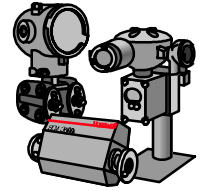


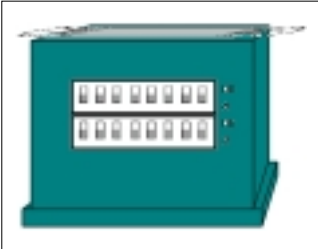
CIM

Combo Interface Module

Preliminary



DESCRIPTION



The **Combo Interface Module, CIM**, enables a TPS xPM STI-MV IOP module to accept any mix of analog 4-20ma or bi-directional DE inputs from field instruments on a per channel basis.

The **CIM** accepts 4byte DE, 6 byte DE (single or multivariable), analog 4-20ma(1-5volts) on any of the 16 input channels.

The **CIM** is installed between the FTA IOP connector and the IOP cable. In redundant applications, two **CIMs** are required.

The **Combo Interface Module** is ideal for both MRO and new installations, eliminating the need for two IOP module types (analog & DE), enabling digital integration and higher channel densities while utilizing less card slots and FTAs.

FEATURES

- Accepts Analog or Bi-Directional DE on Any Channel
- Compatible With Any STI-MV and Most FTAs
- Simple to Install & Configure
- Analog-to-DE Transmitter Mode Change from TPS
- No Wiring or Software Changes

OPERATION

The **CIM** always presents 16 channels of DE data to the STI-MV IOP module, either directly from a DE field instrument or internally generated from the **CIM**'s internal A/D converter.

The **CIM** operates by allowing all DE communication traffic to pass directly through the **CIM**, or converting analog 4-20ma signals to 4byte DE digital and then passing that digital signal to the STI-MV IOP module.

HOW IT WORKS

Each of the **CIM**'s 16 input channels is configured via a DIP switch for either *analog* or *DE*.

If a channel is configured as *digital*, the **CIM** passes the bi-directional DE digital communication signal (4byte or 6 byte) directly through to the STI-MV IOP Module.

If a channel is configured as *analog*, the **CIM** will convert the analog 1-5volt (4-20ma) input signal to 4byte DE for processing by the STI-MV IOP module. The 4byte DE 'status' is bad if the analog input is below 3.8ma, above 21.8ma., or if the A/D channel diagnostics is bad.

If a DE configured channel losses communication activity the **CIM** will continue to pass the bad signal to the STI-MV IOP module.

CIM module channel types may be re-configured "hot".

Module power is derived directly from the IOP cable. The **CIM** shares the common +24VDC IOP FTA power and is internally fused. No special installation tools are required. Both connectors are well secured via integral connector snap locks.

The **CIM** design shares common technology from the field proven MVA/MTS designs. Proprietary Vektron technology is incorporated in the analog-to-DE converter and incorporation of **ISA S84** and **IEC 61508** safety requirements.

COMPATIBILITY

The **CIM** module is release independent and does NOT require any system modification. It is fully compatible with all single and multivariable field instruments. All *digital* bi-directional DE channel data is unchanged by the **CIM**. Analog inputs are processed with minimal delay and broadcasted at the 4byte DE data rate to the STI-MV IOP. On DE channels, there is no impact or disturbances as a result of communicator usage. On *analog* channels, there is no impact or disturbances as a result of HART communicator usage.

Channels configured for DE may be connected to a Smartline transmitter in *analog* mode and later switched to *DE* mode from the TPS console. Channels configured for *analog* may be connected to a Smartline transmitter in *analog* mode and can NOT be inadvertently switched to *DE* mode from the TPS console.

The **CIM** may be used with any STI-MV IOP module and a variety of FTA types (*see TABLE 1: Compatible FTAs & IOPs*).

WHY GO DIGITAL ?

Digital field instruments are more accurate and repeatable than analog. Digital integration is a cost-effective means of **multivariable** process measurement. Digital integration establishes a solid, secure basis for regulatory and advanced control through increased integrity of the process data. Digital integration of field devices provides centralized database management, and substantially reduces project implementation time, streamlines maintenance and improves plant safety.

ORDERING INFORMATION

Model #: **CIM-16-S** Switch Programmable

HONEYWELL PROPRIETARY

SPECIFICATIONS : (PRELIMINARY)

# of Input Channels:	16 per module
Input Type(s):	Honeywell Digitally Enhanced (DE) Protocol, 4 or 6 byte mode (single or multivariable), bi-directional, or analog 1-5volts (4-20ma).
Input Type Selection:	DIP Switch or Jumper
Analog Conversion Accuracy:	12 bits, min.
Analog Conversion Latency:	10msec.
Analog to Digital DE:	4byte DE (PV1, Status) @ 267msec. broadcast rate
Status Indicator (green LED):	ON = fault. BLINKING = normal operation. OFF = no power.
Power:	+24VDC @ TBD ma.
Operating Temperature Range:	-20°C to +70°C, ambient
Dimensions:	3.25"W x 0.6875"D x 3.5"H (max.)
Mounting:	between FTA and IOP Cable, accepts FTA connector clamp and contains integral cable clamp for IOP connector.
Compatible IOP:	STI-MV (all revisions)
Compatible FTAs:	see Table 1
Environmental:	sealed or conformal coated
Regulatory Approvals:	Designed to meet CE Mark, Industrial Level

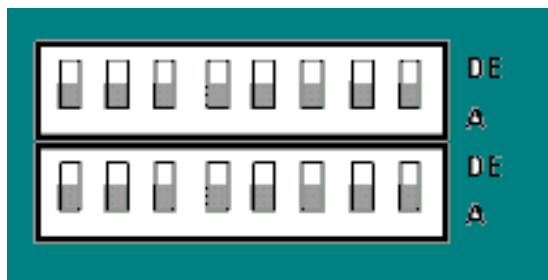


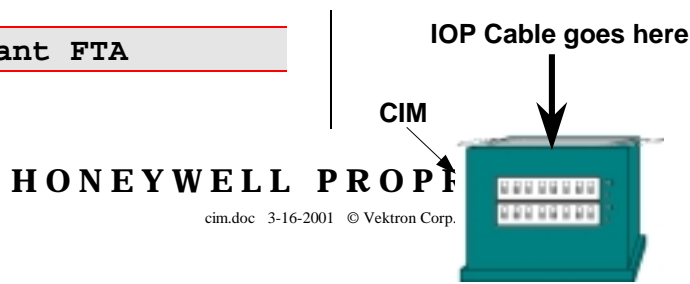
TABLE 1: Compatible FTAs & IOPs

	Model Number	Comment
FTA	MU-TAIH01, 02, 03	single
	MU-TAIH12, 13, 22, 23, 52, 53, 62	redundant
	MC-TAIH02, 03	single
	MC-TAIH12, 13, 22, 23, 52, 53, 62	redundant
	BU-THAI11, BU-GHAI11	HART
STI-MV IOP	MU-PSTX01, 02, 03 MC-PSTX02, 03	

FIGURE 1: Combo Interface Module

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FIGURE 2: Non-Redundant FTA



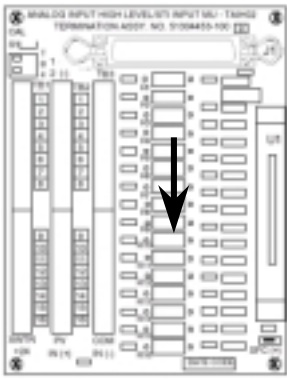
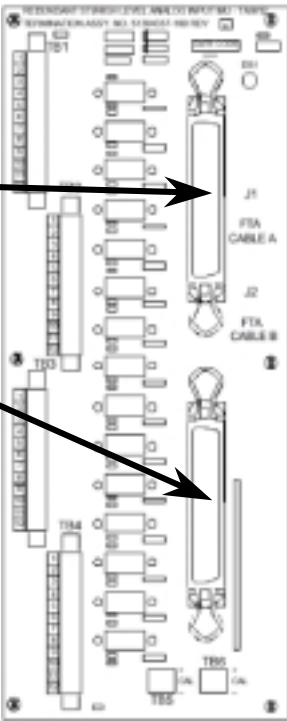


FIGURE 3: Redundant FTA



NOTE: Requires 2 CIM modules.