Motor-Generator Computer Interface

H-MGI-Series
Motor-Generator Interface Module with I/O Package
Hampden's Four-Step Solution for Motor Signal Acquisition

Bring your investment in Electric Motor Technology along with you into the 21st Century

Dimensions: 18"H x 23"W x 12"D
Shipping Weight: 80 lbs.

Purpose

The Hampden **Model H-MGI-Series** Motor-Generator Interface package provides an all-in-one solution for interfacing motors and machines with computers.

Providing ease-of-connection for real-world signal levels, the **Model H-MGI-Series** connects to any standard IBM-compatible computer via an RS-232 serial cable.
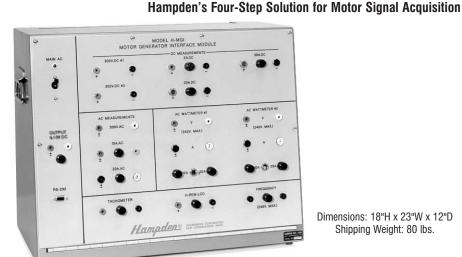
It's four steps and you're up and running:

1. Unpack the **Model H-MGI-Series** Motor Interface
2. Plug in the inputs from your machines into the clearly labeled inputs on the **Model H-MGI** front panel.
3. Plug the supplied RS-232 cable from the **Model H-MGI** into your computer.
4. Install the Hampden Acquisition software on your computer.

That's it! Your motor experiments can now be recorded and analyzed by the software included with the **Model H-MGI**. Hampden includes typical templates for many standard fractional and integral motor setups.

Typical Experiments

DC:	Torque vs. Alternate Current
	Speed vs. Alternate Current
	Speed vs. Applied Armature Voltage
AC:	Power Factor vs. Load
	Torque vs Current
	H.P vs. Load
	Efficiency of a Single Phase Motor
	vs. Current "V"-curves

Description

The Hampden **Model H-MGI-Series** Motor-Generator Interface Module is directly compatible with:

H-MGI-100

- Hampden Series 100 Motors

H-MGI-REM

- Hampden H-REM-120
- Hampden H-REM-1A
- Hampden Series 2 2Hp Motors
- Hampden Series 3 3Hp Motors

The **Model H-MGI-Series** also provides inputs for the Hampden **Model H-REM-LC-D** Digital Load Cell and **Model HPT-100A** Digital Photo Tachometer.

Specifications

The Hampden **Model H-MGI-Series** allows the following output and inputs:

INPUTS	OUTPUT
AC Volts	0–10 DC Volts
AC Amps	
AC Watts	
DC Volts	
DC Amps	
45-65 Hz	

This module consists of one analog output and eleven analog inputs at real-world levels which go to microprocessor controlled high-resolution 16 bit sigma-delta A/D converters to acquire the appropriate sensor signal. The digital data is translated into the appropriate format such as engineering units; when the computer requests this data, it is sent over a single RS-232 interface cable. The output signal can be used to run motors via a variety of Hampden solid state controllers. Furnished complete with cords.

Supplies Required

1Ø AC-50/60Hz

Option

For National Instruments modules, specify **H-MGI-VIEW**, available with and without LabVIEW software.

All Hampden units are available for operation at any voltage or frequency

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H-MGI-G
Motor-Generator Interface Module

◄ **MODEL H-MGI-G**
Motor-Generator Interface Module
Dimensions: 8¼"H x 19"W x 8¼"D
Shipping Weight: 35 lbs.

Interior Power Supply:
   24V DC

Software:
   Utility - Configure Modules
   Scada - Genie Data Acquisition and Control
      Software.

Interconnection Cords:
   22 Hampden PP-4

Manuals:
   Operating and Instruction manual

Options 1:
   Sixteen Relay outputs
   32-Hampden PP-4

The **Model H-MGI-G** can be mounted inside the **HMD-100-CM-DA** console. For the internal version, specify **Model HMD-100-CM-DA-CDL** at time of order.

Purpose

The Hampden **Model H-MGI-G** Motor-Generator Interface Module interfaces with the following digital meter modules:

- **MODEL ACVA-DA-100/300**
   AC Volt/Ammeter with Digital Meters
- **MODEL DCVA-DA-100/300**
   DC Volt/Ammeter with Digital Meters
- **MODEL ACWM-DA-100/300**
   AC Wattmeter with Digital Meters

Hampden modules:

- **MODEL H-REM-LC-D**
   Digital Load Cell
- **MODEL HPT-100A**
   Digital Photo Tachometer
- **MODEL HMD-100-CM-DA**
   Console

Specifications

Protection:
   1-pole UPG circuit breaker.

Pilot Light:
   Glodot

Interface Receptacle:
   RS-232 9-Pin

Power Required:
   120V AC

Converter:
   RS-485 to RS-232

Analog Inputs:
   Channels – 16
   Sample Rate – 10 Hz
   Resolution – 16 Bit

Hampden Mobile Student Experimentation Stations with Computer Data Logging

The **HMD-100-CM-DA-CDL** Console consists of twelve analog inputs which go to microprocessor controlled high-resolution 16 bit sigma-delta A/D converters to acquire the appropriate sensor signal. The digital data is translated into the appropriate format such as engineering units; when the computer requests this data, it is sent over a single RS-232 interface cable.

MODEL HMD-100-CM-DA
Shipping Weight: 700 lb.

All Hampden units are available for operation at any voltage or frequency

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