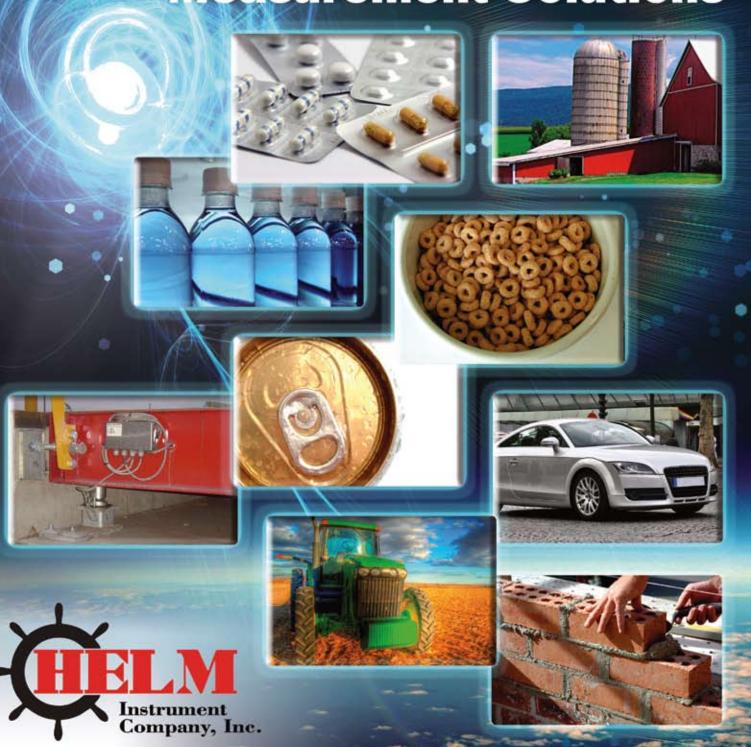
Strain Gage Measurement Solutions



Mastering a world of applications using Specialty I/O Modules for Allen-Bradley PLCs Rockwell Automation Encompass Product Partner











From truck scales to food products, assembly lines to blister packs, Helm modules provide you precise force and position measurements within a world of applications.

Strain Gage Input

Helm modules connect directly to the Allen-Bradley PLC backplane. This seamless integration eliminates the cost of adding additional I/O and auxillary control boxes. Each module features two independent channels of strain gage signal conditioning, adjustable high-low alarm setpoints and on-board power supply. The modules are compatible with all industry standard load cells and transducers.



Model HM-604

Application



Model HM-1520

1746



Model HM-1756

1756

Applications:

- Metalforming
- Pharmaceutical
- Assembly
- Powder Metal
- In-die
- Compaction
- Die Cast
- Thermoforming

Standard Peak Monitoring HM-1756-PLM HM-604-PLM HM-1520-PLM Thru-the-Stroke Monitoring HM-604-TSM N/A HM-1756-TSM with Resolver Interface Force Versus Position N/A HM-1756-LDT N/A Ultra High Speed N/A Up to 5,000 RPM N/A HM-1756-UHS

1769

Specifications:

- 12 Bit Resolution
- Internal Time Conversion 140 Microsecond – HM-604 100 Microsecond – HM-1520 and HM-1756
- Gage Excitation ±4 volts DC
- Internal Diagnostics
- Single Slot 2 Channel Input
- Strain Gage Input 175-700 ohm

Weigh Scale Applications

Helm weigh modules are

factory programmed for the static force measurements found in weighing applications. The dual channel, single-slot modules also feature a built-in programmable tare function for accurate, no drift operation. No external amplification or junction boxes are required.

Applications:

- Filling
- Batching/Blending
- Process Weighing
- Level Control
- Bulk Weighing

Specifications:

- 16 Bit Resolution
- Internal Time Conversion 10 Microsecond
- Module Accuracy 0.01% Full Scale
- Strain Gage Input
 - 2 350 ohm *or* 4 – 700 ohm



Licensed through the Rockwell Automation Encompass program since 1994, Helm modules reside directly on the I/O back plane. Helm is a Global member of this best-in-industry association.



Point I/O HM-1734 shown. Also available in armor point version.

Platform	Model
1734	HM-1734-WM
1738	HM-1738
1746	HM-604-WM
1756	HM-1756-WM
1769	HM-1525

Resolver Input

Helm resolver modules

interface with all sine-cosine type resolvers for absolute position monitoring. Combining strain gage and resolver modules delivers real time signature analysis for accurate part quality control.

Applications:

- Programmable Limit Switch
- Die and Brake Monitoring
- Packaging
- Conveyors
- Signature Analysis



Model HM-1530



Model HM-571



Model HM-7100-D

Specifications:

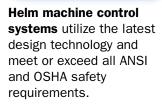
- 12 Bit Resolution
- 0.1 Degree Scaling
- Internal Time Conversion 200 Microsecond
- Master/Slave Operation
- Strokes Per Minute
- Internal Diagnostics

Platform	Model
1746	HM-571
1746	HM-7100-D
1769	HM-1530

System Integration

Helm control systems combine basic machine operating functions with PLS, die monitoring, tonnage control, brake stopping time and servo feed interface in one affordable system. Expandable I/O configuration allows for easy integration of auxiliary factory operations including conveyors, transfer systems and scrap removal. Production downtime reporting, job recipe management, counters and on screen fault prompts are standard in all Helm-Pak systems. A variety of mounting options and operator interface displays are available.







The modular design allows the Helm-Pak to be customized for a wide range of applications. All systems include Ethernet communication for plant-wide networking capability.

Load Cells and Force Transducers

Helm manufactures a complete line of standard and custom designed load cells. Capacities range from a few pounds to several thousand tons. All load cells are manufactured under controlled laboratory conditions and supplied with certificate of calibration.



"The quality of a part is directly related to the force applied. But first, you must make a good measurement."

— Donald F. Wilhelm Founder, Helm Instrument 1923 – 2006

Helm Instrument Company is the leading designer and manufacturer of process control systems, force transducers and software for the metalforming industries. Helm introduced press load monitoring and signature analysis in 1968, in-die force sensing in 1972, and holds numerous patents on sensor designs, instrumentation and applications. From our strategic location in the industrial Midwest, we supply and support our customers with a complete staff of representatives worldwide.

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