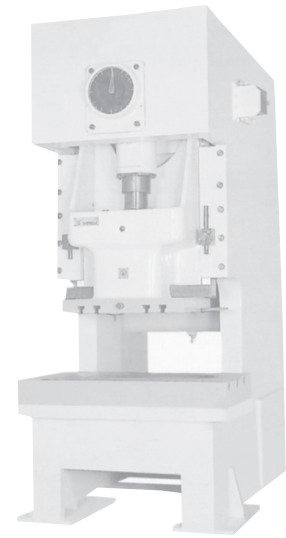
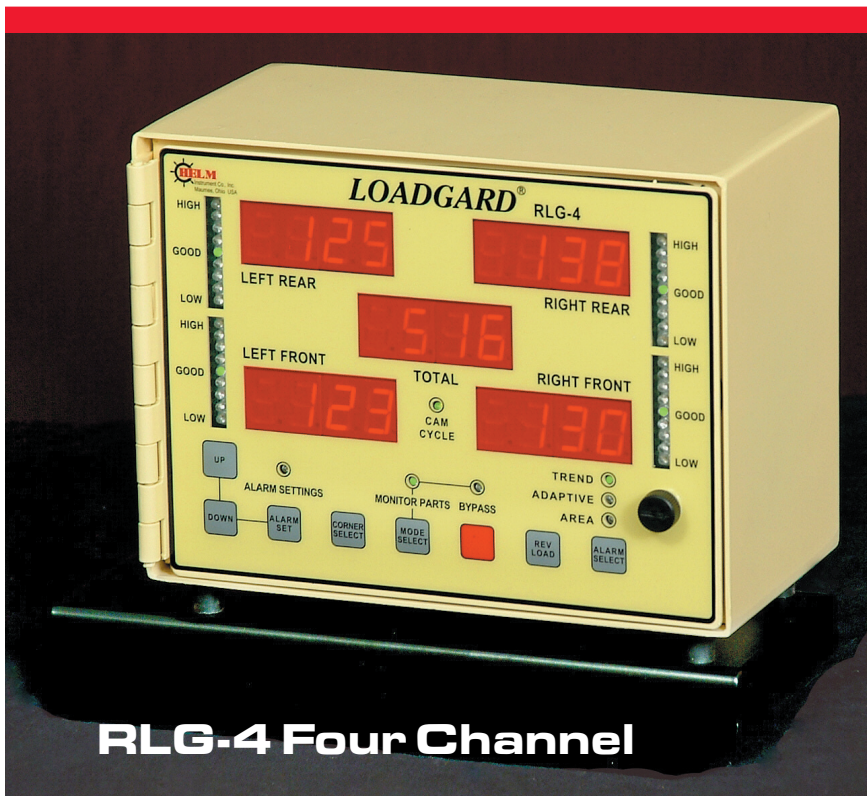




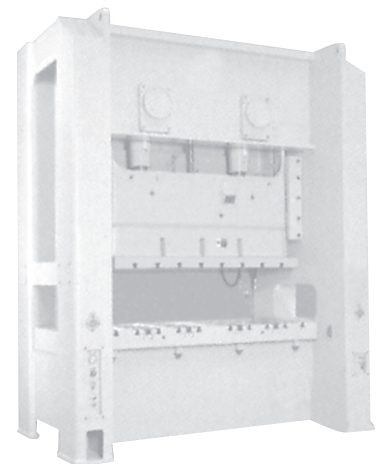
**RLG-2 Two Channel**



## Automatic Tonnage Monitors



**RLG-4 Four Channel**



## Applications

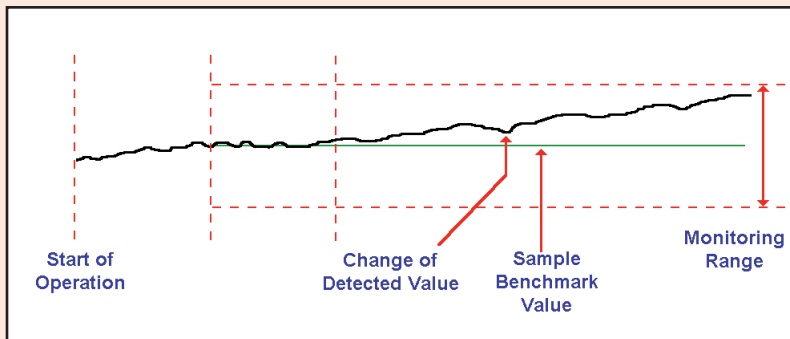
- Punch Presses
- Forging Machines
- Transfer Presses
- High Speed Stamping
- Assembly Operations
- Link Drive Presses
- In-Die Force Monitoring
- Thread Rolling

## Features

- Two or Four Channel, Strain Gage input
- 24 volt DC or 110 volt AC power input
- Three selectable alarming methods:
  - High-Low Trend – Adaptive Learn – Area Under the Curve
- Built-in machine capacity alarms
- Reverse (snap-thru) load alarm. Factory set at 20%
- Ethernet communication port - optional
- Backed by over 45 years of experience

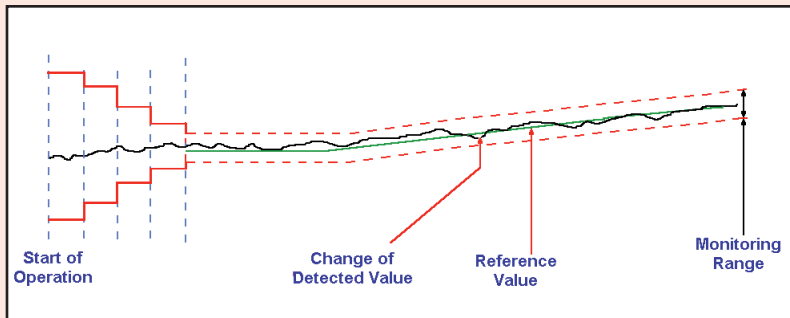
## Select the Alarming Method for your Application

### TREND



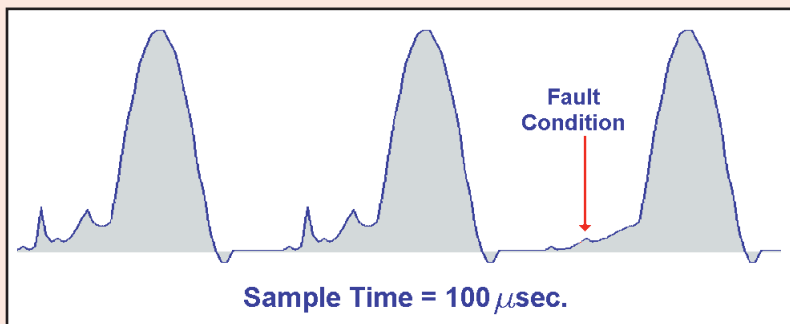
Invented by Helm over 25 years ago, Trend alarming allows you to establish the quality window that the process must operate within. Limits are selectable from 5% to 45%, in 5% increments. Once the forming process begins, the Trend alarms are automatically set above and below the sample benchmark value. Machine shutdown is activated if the forming force varies outside the monitoring range.

### ADAPTIVE LEARN



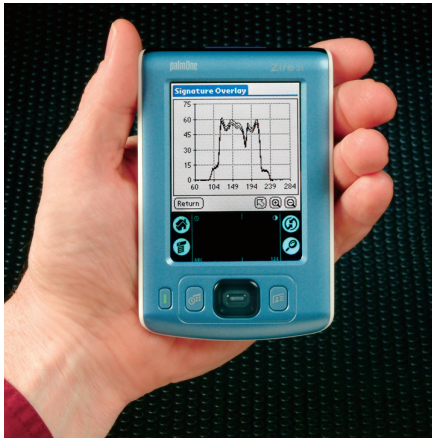
Changes in material thickness, hardness or temper are quickly detected with this alarming method. Upper and lower limits are continuously adjusted during the production run based on the average tonnage developed over the last 100 machine strokes. Adaptive learn alarming is ideal for high speed forming operations and guarantees precision tonnage control.

### AREA UNDER THE CURVE



Utilizing Helm signature analysis techniques, this alarming method continuously monitors the energy curve developed while each part is formed. If any area of the forming signature changes, machine stop is initiated. Area under the curve monitoring does not require a resolver or other external timing device. Applications include presses performing deep draw or stretch forming operations and machines using nitrogen die cylinders.

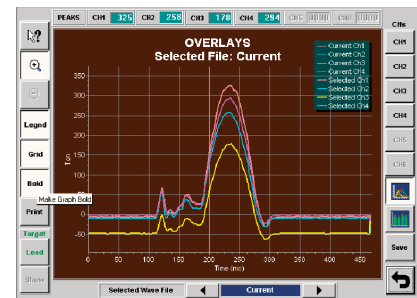
# RLG...The New Standard in Tonnage Monitors



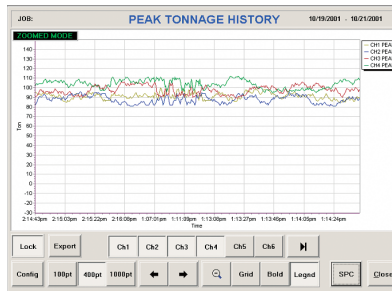
The RLG includes infrared technology for capturing tonnage and signature information on your Palm® handheld. Current tonnage readings, the last 200 overload events and 1000 tonnage signatures are stored in the RLG. Each overload is displayed with a date and time stamp and the tonnage signatures are viewed in real time or retrieved from the history file.

## Add these networking options to your RLG for displaying:

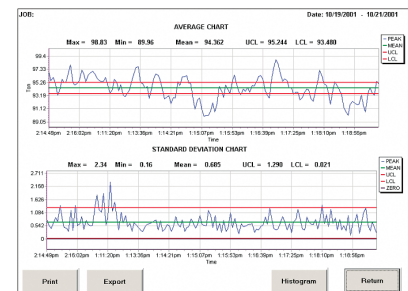
- Tonnage Values
- Alarm History
- Current and Stored Load Signatures
- SPC Charts



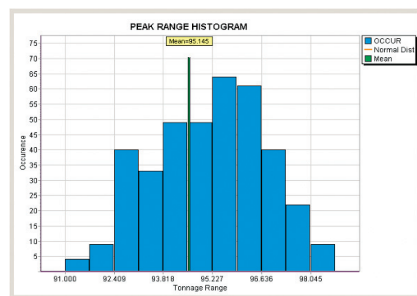
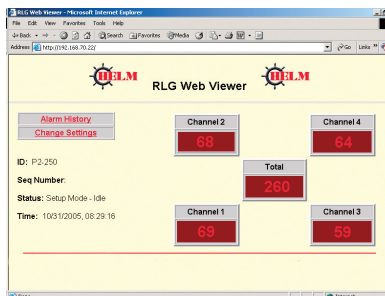
✓ **Mariner AD – for quick interface with laptops**



✓ **Ethernet-Firstmate Module – for connecting to your plantwide network**

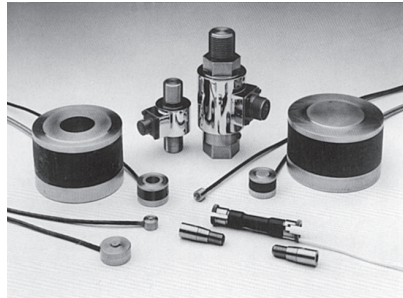


✓ **Web-View Module – for browser based access on your LAN or the Internet**



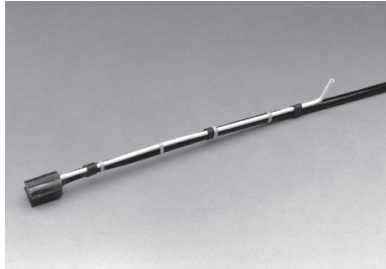


For press machine monitoring, Helm HT-400 sensors are mounted directly to the frame for accurate measurement of compression or tension forces. An industry standard since 1968, all HT-400 sensors are manufactured to within 1% and may be interchanged without recalibration of the machine.

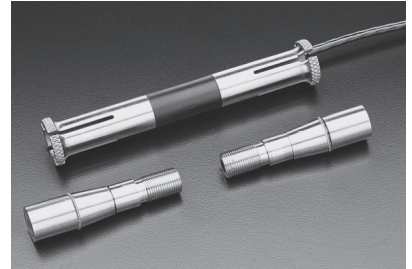


Helm load cells and monitoring systems are used in many secondary forming operations including assembly, staking and riveting. Contact your Helm representative for additional information or visit our website at: [www.helminstrument.com](http://www.helminstrument.com).

All Helm sensor kits include required quantity of HT-400-35 sensors (35 foot cable length standard), T-21 protection boxes, WS cover plates and weld or drill mounting hardware.



Model SG-573  
In-Die/Station Monitoring



Model T-2640  
Die Cast/Injection Molding

## SPECIFICATIONS

- Number of channels** ..... Two or Four
- Power Requirements** ..... 24 volts DC or 110 volt AC
- Sensor Inputs** ..... Two or Four Helm Strain Gage sensors
- Operating Range** ..... Single stroke to 1000 strokes per minute
- Instrument Gain** ..... Selectable from 50 to 7000
- Output Relays** ..... Two independently wired relays for capacity and selected alarm functions. Each relay rated at 24 VDC, 1/2 Amp. 110 VAC system supplied with two 24-volt dry contact relays.
- A to D** ..... 12 bit
- A to D Sample Rate** ..... 100 microseconds
- Display Resolution** ..... Up to .1% full scale
- Overall Accuracy** ..... 1% full scale

## ORDERING INFORMATION

Power/Mounting Options	Two Channel	Four Channel
110 volt AC with bracket	.....RLG-2AC	.....RLG-4AC
110 volt AC with flange	..... RLG-2AC-FL	..... RLG-4AC-FL
24 volt DC with bracket	..... RLG-2DC	..... RLG-4DC
24 volt DC with flange	..... RLG-2DC-FL	..... RLG-4DC-FL

Sensor Installation Kits		
Drill/Tap Installation	..... L2--DB	..... L4-DB
Weld/Pad Installation	..... L2-WB	..... L4-WB



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or E-Mail us at: [sales@helminstrument.com](mailto:sales@helminstrument.com)

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