

# INSTRUMENTS

## PHOTO CONTACT TACHOMETER

One meter provides precise RPM measurements with or without contact.

**Multi-Functional:** New patented design incorporates both a photo and contact tachometer into one precision instrument.

**Wide Measuring Range:** From 0.5 to 20,000 RPM in contact mode from 5 to 99,999 RPM in photo mode. Linear surface speed measurements are 0.2 to 6560 ft/min. or 0.05 to 1999.9 m/min.

**Memory Recall Button:** Automatically holds last reading for 5 minutes and recalls minimum and maximum readings.

**Highly Visible LCD Display:** Characters on the large 5 digit display reverse direction depending on which measurement mode you are in.

**Microcomputer LSI Circuitry:** Provides accuracy to 0.05% and permits readings to a resolution of 0.1 RPM in either photo or contact mode.

**Rugged Construction:** ABS plastic housing assures years of maintenance free performance. Designed to fit comfortably in either hand.

**Accessories Included:** 3" wheel, 1 cone adaptor, 1 cone tip, 1 funnel cone, 1 funnel tip, one sheet of tabs, carrying case.



### SPECIFICATIONS:

*Model No. HF964 - Mfg. No. K4010*  
*Photo/Contact Tachometer*

#### READING RANGE:

- Photo Mode:** 5 to 99,999 RPM
- Contact Mode:** 0.5 to 20,000 RPM
- Surface Speed:** 0.05 to 1,999.9 RPM/0.2 to 6,560 FPM
- Resolution:** 0.1 RPM < 999.9 RPM, 1 RPM > 1000 RPM;  
0.1 MPM < 99.99 MPM; 0.1 FPM < 99.99 FPM, 1 FPM > 1000 FPM
- Accuracy:** ±(0.5% + 1 digit)
- Sampling Time:** Photo: 1 sec. > 6 RPM; Contact: 1 sec. > 60 RPM
- Detecting Dist.:** 50 to 150 mm (2" to 6") typically; 300 mm (12") max.
- Display:** 5 digit LCD 10 mm high
- Power Supply:** (4) 1.5 V L AA batteries
- Time Base:** Quartz Crystal
- System Control:** Single chip micro computer LSI circuit
- Operating Temp.:** 0° to 50°C
- Dimensions:** 215 x 65 x 38 mm
- Weight:** 300 g

## PELICAN PROTECTOR EQUIPMENT CASES

Light, strong, watertight and airtight for the ultimate protection. Constructed of copolymer and polypropylene. Supplied complete with pre-scored pick and pluck foam or padded dividers (no cutting required). Custom foam insert fabricated on special order. Also includes ABS locking flanges, massive multiple latches and a comfortable moulded grip handle. **HA597** and **HA603** supplied with solid foam only.

### FEATURES:

**"O"-Ring Seal:** Exclusive 1/4" neoprene "O"-Ring guarantees a perfect seal. Neither dust nor water can penetrate this barrier to damage your equipment. These rings are easily replaced if damaged.

**Purge Valve:** All cases are absolutely airtight. Exclusive built-in "O"-Ring sealed pressure purge valve allows for quick equalization after changes in temperature or altitude.



### PROTECTIVE CASES

Model No.	Description	Inside Dimensions L" x W" x D"	Outside Dimensions L" x W" x D"	Wt. lbs.
HA292*	1200 Case	9 3/8 x 7 5/16 x 4 1/8	10 5/8 x 9 3/4 x 4 15/16	3.47
HA419*	1300 Case	9 3/8 x 7 5/16 x 6 1/4	10 5/8 x 9 3/4 x 7	4.28

### INTEGRAL PERSONALIZED NAMEPLATE

HA450*	1400 Case	12 x 9 1/8 x 5 1/8	13 3/8 x 11 11/16 x 6 1/16	5.49
HA501*	1500 Case	17 x 11 1/2 x 6 1/4	18 5/16 x 14 1/8 x 7	8.70
HA510*	1550 Case	18 7/8 x 14 1/2 x 7 3/16	20 5/8 x 17 3/16 x 8 9/16	13.37
HA536*	1600 Case	21 5/8 x 16 7/8 x 7 7/8	24 1/4 x 19 7/16 x 8 11/16	16.52

### RECTANGULAR HANDLE

HA597	1700 Case	35 3/4 x 13 3/4 x 5 1/4	38 7/16 x 17 9/16 x 6 1/4	19.72
HA603	1750 Case	50 1/2 x 13 1/2 x 5	52 7/8 x 17 1/2 x 6	28.34

\* Fold down handle

## ILLUMINOMETERS

Accurately displays light level in terms of Foot Candles (FC) or Lux, over a wide range.

Measures from 0 to 5000 FC in three ranges with a resolution from 0.1 FC and from zero to 50,000 lux in three ranges from 1 lux.

Automatic zero adjustment, sampling time of 0.4 second and large 0.5" LCD readout.



Model No.	Mfg. No.	Description
HF979	K7020	Illuminometer
HA292	1200C	Deluxe carrying case
HF211	CA-03	Vinyl carrying case

## SOUND LEVEL METER

- One button provides fast, accurate noise level readings
- Measures any level from 40-120 dB(A)
- Unit equipped with LED battery test indicator
- Uses 2.7 volt battery



Model No.	Mfg. No.	Description
HK708	SL-120	Sound level meter
HA292	1200C	Deluxe carrying case
HF211	CA-03	Vinyl carrying case

## ORION MULTIGAS DETECTOR

The standard for reliability, ease of use, and durability.

- Detects up to 4 gases including O<sub>2</sub>, CO, H<sub>2</sub>S, and combustible gas
- Simple, one-button calibration
- Easy to use under any conditions, in any environment
- Large display, with contrast for quick, easy readings
- Tough and durable, IP54 rating; passes a 6' drop test
- 4 sensors & alkaline battery pack included



Model No. HX110 Mfg. No. A-Orion **MSA**

## PULSTAR™ MAINTENANCE-FREE SINGLE-GAS DETECTORS

- Reliable, easy to use and durable with a service life of 24 months
- Sensor options for CO, H<sub>2</sub>S or O<sub>2</sub>
- Ideal for oil & gas, chemical, construction, utilities, fire service industries and many other industrial applications
- Provides a two-year service life with no maintenance
- Patented MSA-built Button™ sensors feature stainless steel construction and contain solid electrolyte, eliminating the possibility of sensor leakage
- Extremely small, thin sensor profile allows high performance in a very small package
- Offers a simple, easy to read display, allowing the user the count down the service life from 24 months with accuracy
- Designed to meet IP54 rating
- Highly water and dust resistant
- Audio alarm is loud and is designed not to be confused with other workplace sounds
- Optional vibrating alarm emits a pulsing vibration that further calls attention to the user when in alarm mode
- Designed to withstand a 6' drop
- Solid-state circuitry and rugged case design increases impact resistance and minimizes the chance for breakage



HX176



HX178

Model No.	Mfg. No.	Description
HX174	10032580	CO, 25 PPM & 100 PPM, with non-vibrating alarm
HX175	10032581	CO, 25 PPM & 100 PPM, with vibrating alarm
HX176	10032590	H <sub>2</sub> S, 10 PPM & 15 PPM, with non-vibrating alarm
HX177	10032591	H <sub>2</sub> S, 10 PPM & 15 PPM, with vibrating alarm
HX178	10032596	O <sub>2</sub> , 22.5% & 19.5%, with non-vibrating alarm
HX179	10032597	O <sub>2</sub> , 22.5% & 19.5%, with vibrating alarm