The KAM® CHA™ Colorimeter/Haze Analyzer is the ideal quantitative solution for in-line monitoring of both the color of refined products and the presence of haze (water and/or sediment).

Utilizing a unique 5-LED design, the KAM® CHA™ detects fluid color variations within 1% of scale. Final outputs are expressed as haze plus one of three industry-standard color scales (Saybolt, Platinum–Cobalt, ASTM D1500) or digitally in X,Y,Z. Measurement is fully automatic, and the output signal can be sent to the SCADA, PLC’s, or to a Central Control Room for logging or display on chart recorders or monitors.

The KAM® CHA™ is factory calibrated to certified absolute standards and does not require site calibration. Using long-lasting LED light sources ensures long-term, stable performance with limited maintenance and power requirements. In addition, all electronics are located within an explosion-proof enclosure directly on the atmospheric end of the optical probe, creating a complete and compact unit with maximum installation flexibility.

The KAM® CHA™ probe can be installed in an analyzer loop or in the main line, and because it’s easily mounted through a full-opening ball valve, you can insert or retract the probe without ever needing to drain the pipe.

**KEY FEATURES**

- 5-LED design offers greater accuracy over other, 3-LED models
- Uses LEDs for long-term performance with minimal power and maintenance requirements
- Inserts in directly in pipeline under process conditions
- Outputs for haze plus industry scales ASTM D1500, Platinum-Colbalt, and Saybolt
- All requisite electronics housed on atmospheric end of probe; requires no additional controller

**APPLICATIONS**

- Multi-product pipeline interface detection
- Transmix/regrade reduction
- Haze monitoring/quality control at refineries and pipeline terminals
- Haze monitoring/quality control for incoming diesel fuel in power and marine applications
- Haze/quality control for aviation fuels at pipeline, tank farm, fuel trucks and carts
### AVAILABLE MODELS and MOUNTING OPTIONS

- **Insertable CHA™**
  - on a main pipe, with 2", 3", or 4" flanged seal housing

- **Insertable CHA™**
  - on a main pipe, with 2" MNPT seal housing

- **CHA™ flow through spool**
  - with 1" or 2" weld-neck flanges

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### SPECIFICATIONS

- **Media:** Refined products
- **Material:** Wetted parts—316 stainless steel, sapphire
- **Power:** 12–24 VDC 20 Watts max
- **Outputs:** (2) 4-20 mA (haze + color scale) RS485 (MODBUS; X,Y,Z)
- **Fluid temperature:** -40° to 200°F (-40° to 93°C)
- **Electronics temp.:** -4° to 140°F (-20° to 60°C)
- **Pressure ratings:** ANSI 150, 300, 600
- **Accuracy:** Haze ± 5%, Color ± 1%
- **Repeatability:** Haze ± 1%, Color ± 1%
- **Reproducibility:** Haze ± 1%, Color ± 1%
- **Haze Range:** 0-100%
- **Color Range:** Complete range of ASTM D 1500; Saybolt; Platinum-Cobalt; X,Y,Z
- **Mounting:**
  - 1" and 2" Flanged Flow Through
  - 2" MNPT Seal Housing
  - 2", 3", or 4" Flanged Seal Housing
- **Hazardous area:** PTB04 ATEX 1027 (Ex II 2 G Ex db IIB T6 Gb)
  - NEMA4 (IP66 equivalent)
- **Sensor Dimensions:** 3.5” x 1.25”Ø (89 mm x 32 mm)
- **EX enclosure:** 4.6” x 7.1” x 4.4” (117 mm x 180 mm x 112 mm)
- **Shaft length:** 12” to 60” (305mm to 1524mm)
- **Pipe size:** 1” to 48” (25 mm to 1219 mm)
- **Weight:** from 20 lbs. (9kg)

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**FOR MORE INFORMATION ON KAM PRODUCTS**
visit [WWW.KAM.COM](http://WWW.KAM.COM)

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