Heath's HVC - Intrinsically Safe & Durable

The new intrinsically safe Heath Volume Corrector (HVC) is a powerful device that can be assembled and programmed in a variety of configurations. Featuring a heavy-duty rust free powder coated aluminum housing designed to withstand the most extreme weather conditions. It is a microprocessor based, self-contained system designed for the purpose of performing ideal gas law calculations using integral pressure, temperature and volume sensing devices. The HVC is equipped to provide pulse outputs representative of uncorrected and corrected volume.

Based on new circuit technology it has extended memory, configuration and calibration data are stored in flash memory, it operates with low power and the Host software is compatible with LVC, XVC and RVC correctors. HVC Host is the companion software interface to the HVC instrument. The application program provides for configuration, calibration, local and remote communication, interrogation, data collection and data processing.

The HVC is suitable for direct mounting on most diaphragm, rotary or mechanical turbine meters. The instrument utilizes a 1.5-volt encapsulated "D" cell alkaline battery as its primary power source. The HVC incorporates a multi-level on board uninterruptible power supply. This consists of the main alkaline battery and a "AA" lithium cell to power the instrument and an additional lithium-ion cell to backup memory. These cells are easily replaced in the field.

Features:

- *Intrinsically Safe UL 913 and CSA C22.2, Class I, Division 1, Group D*
- *Non-volatile Flash memory saves Calibration, Transducer Coefficients, Configuration & Site info if all power is lost.*
- *Multi-Drop to several instruments from one modem.*
- *Measures, records and processes pressure and temperature sensor data every meter revolution or every minute.*
- *Single Alkaline "D" battery provides power for up to 4 years.*
- *Event Log - records alarms & configuration changes.*
- *Phone out upon alarm.*
- *Continuous LCD displays Corrected Volume (default).*
- *HVC Host is compatible with Windows 7, Vista and XP.*

See back for specifications and ordering instructions

Specifications

Functionality

Profiler Data Recording:	Circular log: 130 days/hourly: Time/Corrected/ Uncorrected/ Avg. Pressure/ Avg. Gas Temperature
Non-Volatile Flash Memory:	Prevents loss of calibration and configuration if all power is lost
Event Log:	Records alarms & configuration changes
System Alarms:	H/L Press, H/L Temp, Main and Back-up Battery
Contract Usage Alarms:	High Day, Warning Month, High Month
Contract Management:	Nomination, Allocation
Communication Protocols:	Sandia (Native), Modbus RTU, Modbus ASCII
Units of Measure:	PSIG, KPA, BAR Deg. F, Deg. C
HVC Host:	Windows 7, Vista and XP compatible; will operate the HVC, LVC, XVC and RVC
Supercompressibility Correction:	NX-19

Mechanical

Housing:	Aluminum IP64 powder coated over chromate surface preparation
Dimensions:	Overall 8.65” x 6.25” x 4.65” (meter mount)
Weight:	6 lbs (including battery)
Mounting:	Universal rotatable base plate
Pressure Connection:	¼” NPTF
Temperature Probe:	¼” O.D. x 6” probe x 6’ armor; ¼” NPTM slip fitting (others available)
Security:	Lockable stainless steel hasp
Display Scroll:	Push button switch
Drive Mechanism:	Universal drive dog, reversible mechanical brass gear train
Display:	Odometer style eight digit uncorrected volume counter

Electrical

Primary Power Pack:	1.5 volt; 1 D cell alkaline battery with IS protection board
Back Up Power:	3.6 volt field replaceable lithium cell
Transducer:	10 millivolt per volt excitation;12 point polynomial compensation
Temperature Sensor (gas and air):	Integrated circuit type
Flow Detector	Falling reed input pulse
Display:	Eight digit LCD
Com 1:	RS 232 via serial cable
Com 2:	RS 232 modem & multi-drop addressable native Sandia or Modbus

Performance

Accuracy:	+/- 0.5% of reading inclusive of linearity, hysteresis, repeatability, long term drift & temperature
Temperature:	-40°F to + 170°F
Humidity:	5 - 95% non-condensing
Primary Power Pack Life:	Up to 48 months based on 1 minute wake-up interval and no comms
Back Up Power Life:	Up to 12 months based on 1 minute wake-up interval and no comms

Options

Outputs:	Form “C” splitter - provides 2 corrected and 2 uncorrected pulse outputs
External Power:	Allows connecting 6 - 15VCD from external power source
Communication:	Internal 2400 baud “land line” modem, multi-drop harnesses, radio modem, cell modem, IP modem, surge protection

Certifications

Intrinsic Safety:	UL 913 and CSA C22.2, Class 1, Div 1 Group D
CE:	EMC directive EN 61326-1
Corrosion Resistance:	MIL-STD-810F

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7/11