MicroVission control panel

Features and specifications

VILTER

EMERSON

For use on all Vilter reciprocating compressors

Reliable operation

- Based on proven Vission 20/20 technology
- Low thermal footprint enables high ambient operating temperature
- Advanced noise isolation technology reduces EMI interference
- Built-in diagnostic functions simplify troubleshooting
- Scheduling, maintenance, and service options

Enhanced communication

- Network accessibility provides full control and monitoring from remote systems
- Ethernet IP and Modbus TCP protocols
- Modbus RTU serial communications
- VNC remote desktop viewing capable (with ethernet network)
- Multiple compressor sequencing and cross control panel sequencing (i.e. Vission 20/20)
- USB flashdrive memory for downloading reports and set-points

Easy to use

- Same easy to use interface as Vission 20/20; frequently used controls remain visible while navigating to other screens
- 10-inch color touch screen
- Compressor stop button is always visible
- Convenient in-the-field SD card software updates
- Easy retrofitting from Viltech and Vantage

Flexible and expandable

- Configurable software for maximum application flexibility
- Expandable I/O adapts to future expansion requirements and customer needs
- Accepts most sensor types, which can easily be set-up in the configuration screen

Hardware

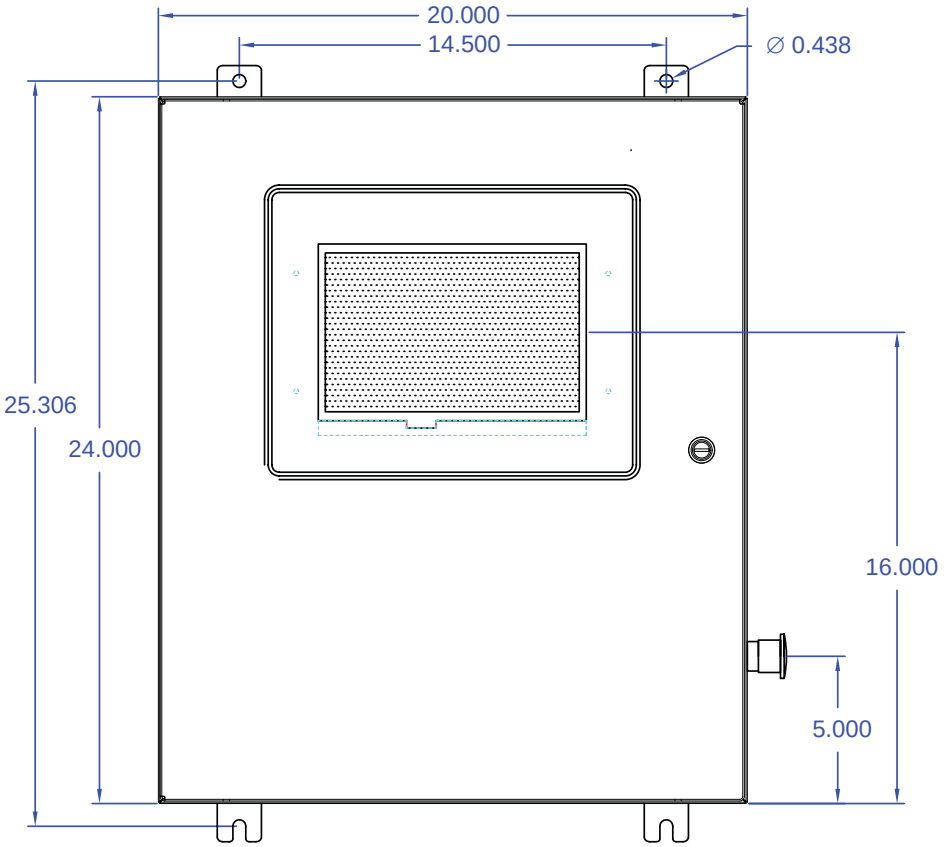
- Solid state input and output circuits
- Field wiring terminal strip
- DC power supply
- Oil heater control
- Circuit breakers
- Emergency stop button
- AC line filter for EMC suppression
- ARM Cortex-A8 CPU technology
- NEMA 4/4X enclosure
- Class 1 Div 2 options
- Standard pressure sensors are high quality refrigeration-rated devices with 4-20 mA output signal
- Standard temperature sensors are RTDs or 4-20 mA
- Motor current sensors are 4-20 mA transmitters
- No refrigerant piping in the control panel

Controls and safety

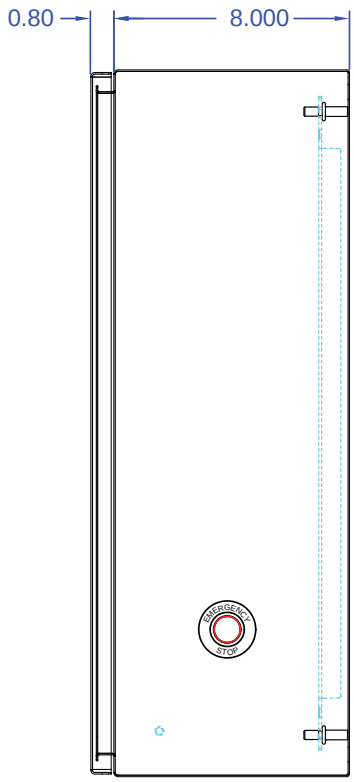
- Linux operating system for efficient and secure operation
- Four levels of security for login
- More comprehensive safety alarms than previous models
- Auto-cycle control
- VFD control
- Suction pressure, process temperature, and discharger pressure control (2 set points each)
- Real-time and historical data stored
- Pump-down control set-points
- Pull-down control set-points

Coming Soon

- User Configurable I/O
- Condenser control
- Multi-language capability

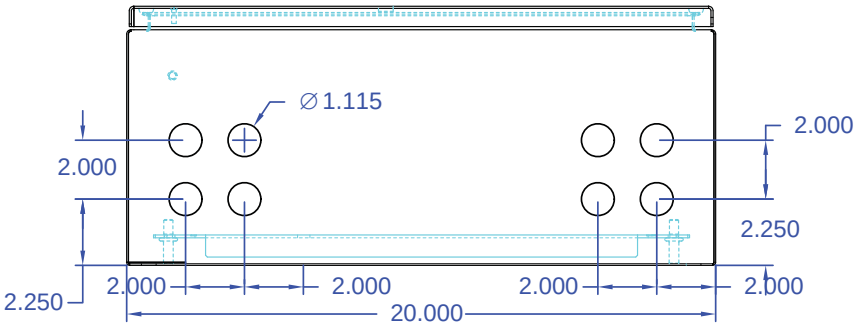


FRONT VIEW



RIGHT SIDE VIEW

TYPE1 ENCLOSURE BUILT TO TYPE4 STANDARDS
CARBON STEEL, PAINTED BLUE
24"(H) X 20" (W) X 8" (D)



BOTTOM VIEW

Dimensions and Weights	
Overall Size	24”H x 20”W x 8”D (610 mm H x 508 mm W x 203 mm D)
Weight	54 lbs
Design	NEMA 4 (NEMA 4X stainless optional)
Material	Powder coated steel (stainless optional)
Finish	Vilter™ blue

Panel Display	
Size	10.1” wide diagonal (216.96 mm x 135.6 mm)
Dot Format	1280 x 800
Type	Color LCD with durable 5-wire touch screen interface
Brightness	400 cd/m2
Backlight	Dual lamp CCF, LED
Overlay	Polycarbonate
Touchscreen	5-wire industrial rated touch screen
Certification	UL 508A, cUL

Environmental Operating Ranges	
Operating Temperature	32°F to 140°F (0°C – 60°C) with optional panel heating and cooling. Panel heating option required for low temperature operation.
Storage Temperature	32°F to 176°F (0°C – 80°C)
Humidity (non condensing)	0% to 90%
Vibration	2.0 g’s (19.61 m/s2)
Shock	100 g’s (980 m/s2)
RFI Immunity	15 v/m (15 Hz to 1.5 gHz)
EMI Immunity	Complies with CE EMC directive

Input/DC Output Power	
Input Power	88 – 125 VAC, 47 – 63 Hz (standard) 185 – 264 VAC, 47 – 63 Hz (optional)
DC Output Power	24 VDC @ 4.17 amps (100 watts maximum)

CPU		
Type	ARM	
Clock	18 Hz	
I/O	TFT display (1) USB port (2) RS-485 ports 5-wire touch	LVDS display Micro SD card slot Ethernet port

Analog Inputs		
Type	0 – 5 VDC	1 – 5 VDC
	0 – 10 VDC	4 – 20 mA
	ICTD	RTD

	Digital Output Modules	Digital Input Modules
Type	Triac, zero-crossing solid state relay	Opto-isolated
Isolation	3 KV	5 KV
Operating Current	3 amps maximum	
Peak 1-cycle Surge Current	30 amps maximum	
Voltage	400 VAC maximum	264 VAC maximum
Fusing	5 amps	

Temperature Sensor	
Type	100Ω RTD

Pressure Sensor	
Material	100% stainless steel welded parts
Over Pressure	2X range
Burst Pressure	5X range
Technology	Signal-conditioned silicon strain gauge
Range	0 – 200 psia and 0 – 414.5 psia
Output	4 – 20 mA
Accuracy	+/- 1% of span
Excitation Voltage	9 – 30 VDC
Temperature Range	-67°F to 221°F (-55°C to 105°C)

Motor Current Sensor	
Technology	4 – 20 mA transmitter
Accuracy	+/- 2%
Temperature Range	-76°F to 212°F (60°C to 100°C)

External Communication Ports		
Serial Port #1	Type	RS-485
	Protocol	MODBUS
	Baud Rate	9.6K to 115K
Serial Port #2	Type	Ethernet
	Protocol	MODBUS TCP
	Data Rate	Ethernet I/P
USB #1	USB 2.0 compliant	

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