

NAMETRE TRANSMITTERS

VISCOSCOPE 1810



VISCOSCOPE 600



MODEL 400



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MODEL 1810

The transmitter model 1810 includes the servo board to drive the sensor and receive the measurement signal. The unit has two 4 digit LED displays where viscosity and temperature can be viewed.

The model 1810 is a multiplexed unit providing the capability to have up to four sensors connected. These sensors can be of a different type and measuring range. The 1810 has a built in exponent display, making it capable to display up to 6 decades of viscosity with a resolution of one 1000th cP. The process temperature is displayed with a resolution of 100th of a degree below 100 degrees.

Built in temperature compensation according to ASTM D341 enables the instrument to display the viscosity at a reference temperature. An external input for density can be used to update the viscosity by the density to calculate the viscosity in cP or cSt. Further, a fixed density can be manually entered and used in the calculation.

Analog outputs for viscosity and process temperature are available to connect the model 1810 with your process control system or pen recorder. A third analog output transmits the decade information, so that a process control system can record the viscosity over the same wide dynamic range as the instrument itself. A unidirectional serial output transmits the data in an ASCII protocol. This RS232 serial port of the 1810 can be interfaced to a PC.

Alarms can be set and output. Either a dry relay contact or an analog alarm output are available for each sensor.

The system can be easily expanded in the field to the maximum number of sensors at any time.

With standard 19" rack dimensions the transmitter is easily mounted into standard racks. A wall mount housing providing Nema 4 rating is available.



- Multiplex up to 4 sensors
- Autorange over 6 decades
- +/- 2% of reading accuracy
- Multiple configurable outputs
- Integral temperature and density compensation

VISCOSCOPE 600

The transmitter ViscoScope 600 includes the servo board to drive the sensor and receive the measurement signal. The transmitter operates a single sensor.

The unit has two 5 digit LED displays, where all available parameters can be viewed. Viscosity, process temperature, block temperature, resonant frequency and internal electronic temperature are available for a view into your process and diagnostics of the system. One single analog input is available to integrate another parameter. The zero setting for the sensor is easily done from the front panel.

Optically isolated analog and serial outputs are available to interface the system with your process control system, pen recorder or PC. With dimensions of 3HE by 21TE the transmitter uses a quarter width of a standard 19" rack mount. A panel mount housing of 144 by 144 mm as shown in the picture above is standard. NEMA 4X and NEMA 7 housings are optionally available.

Two optional alarm relays can be configured for the most important process parameters, and includes two configurable LED alarms on the front panel.



VISCOSCOPE 400 AND 600

- Autorange up to 3 decades
- +/- up to 2% of reading accuracy
- Multiple configurable outputs optional
- Cost effective design



VISCOSCOPE 400

The transmitter ViscoScope 400 includes the servo board to drive the sensor and receive the measurement signal. The transmitter operates a single sensor.

The system has a single 5 digit LED display, where viscosity, process temperature, block temperature or internal electronic temperature can be indicated. A single analog input provides for integration of a further process parameter. The zero setting for the sensor is easily done from the front panel. Optically isolated analog and serial outputs are available to interface the ViscoScope 400 system with your process control system, pen recorder or PC.

Two optional alarm relays can be configured for the most important parameters and the front panel includes two configurable LED alarms.

The ViscoScope 400 is available in a wall mount housing (NEMA 4 / IP65).



VISCOSCOPE

1810

VS600

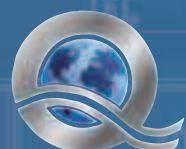
VS400

Measurement Parameters	<ul style="list-style-type: none"> • Viscosity • Process (sensor) temperature 	<ul style="list-style-type: none"> • Viscosity • Process (sensor) temperature • Block temperature • Internal electronic temperature • External input • Resonance frequency (sensor diagnostics) 	<ul style="list-style-type: none"> • Viscosity • Process (sensor) temp • Block temperature • Internal electronic temperature • External input
Multiplex	Up to four sensors	Not available	
Display	1 x 4 digit LED display plus exponent for viscosity, resolution 0.001 cP 1 x 4 digit LED display for temperature, resolution 0.01°C to 100°C	1 x 5 digit LED viscosity display 1 x 5 digit LED temperature display Other parameters can be temporarily indicated via front panel	1 x 5 digit LED viscosity display; Other parameters can be temporarily indicated via front panel
Range	Up to six decades	Up to three decades	
Zero adjustment	Manual adjustment on rear panel for each sensor	For hardware and software components via keyboard	
Configurable filters	Moving average 0-600 seconds	P1 filter Moving Avg. 0-200 samples	0-20 sec
Configurable alarm system	Two relay alarms OR Two 4-20mA alarms	Two LED alarm indicators	
Analog outputs	Three per sensor 0/4-20 mA or 0/2-10 VDC for viscosity, range and temperature; configurable for any range	Two outputs, 0/4-20 mA or 0/2-10VDC, configurable for any range and measurement parameters	Maximum two 0/4-20 mA or 0/2-10VDC outputs; one of the output slots can be used for a serial or analog output
Serial output	One RS232 ASCII protocol, unidirectional	Optional	
External density input	4-20mA input for density compensation	0/4-20mA input for other process parameters	
Temperature compensation	+/- 20°F / 10°C according to ASTM D341	Not available	
Housing*	19" standard rack mount 133x430x330mm (5.25"x17"x13")	Panel mount housing 144x144x218mm (5.7"x5.7"x8.6") NEMA 1	240x 120x102mm (9.5"x4.7"x4") Wall mount housing, PC NEMA 4 / IP65
Ambient temp.	0-50°C	0-50°C	
Power supply	105-125 VAC, 60 Hz, 15 W	95...260 VAC, 50...60 Hz, 15 W	
Accuracy	+/- 2% of reading		
Reproducibility	+/- 1% of reading		
Repeatability	+/- 0.25% of reading		
Factory Calibrated	To NIST traceable standards		

OPTIONS

Power supply	210-250 VAC, 50Hz, 15W	24 V AC/DC	
Housing*	Wall mount housing NEMA 4	Wall mount housing NEMA 4 250x240x236 mm (10x 9.5x 9.3") 19" rack in 42TE, 63TE or 84TE	Standard
Analog outputs	Standard	Third output 0/4-20mA switchable to 0/2-10 VDC	Second analog output 0/4-20mA switchable to 0/2-10VDC
Alarm Relays	Standard	Two SPDT relays, configurable for any available alarm parameter	
Serial Output	Standard	One RS232 or RS485 modbus protocol, in place of second 4-20mA output on VS400	

NOTE: all dimensions are HxWxD



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