VEL
20/40

Fungilab fgb

VEL INLINE PROCESS VISCOMETER

PROCESS CONTROL DIVISION

Fungilab
LEADING VISCOSITY TECHNOLOGY

VEL 20/40

IN-LINE AUTONOMOUS VISCOSITY SENSOR ALSO MEASURES TEMPERATURE AND DENSITY

Fungilab S.A. of Barcelona is proud to unveil our first in-line process viscometer: the VEL. With a patent pending "autonomous" viscosity sensor that operates directly in the main feed line, it is unaffected by pressure or vibrations, and requires no special piping or cleaning.

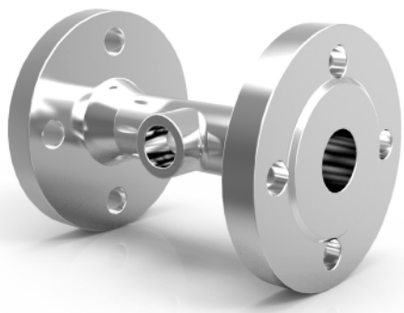
The Fungilab VEL Viscosity Sensor uses cutting edge vibrational technology to detect changes in the viscosity of liquids such as fuel oils, adhesives, coatings, and inks. Since this is an "autonomous" viscosity sensor, very limited maintenance and cleaning intervals are required.

Capable of detecting instant changes in viscosity, the Fungilab VEL Viscosity Sensor operates from 0.3 - 1000 cP viscosity range at 5 GPM (20 LPM) flow, and pressure up to 150 bar (2100 PSI). All wetted parts are stainless steel with optional DLC or PTFE coatings to aid the ease of cleaning, and 3/4" NPT and BSPP connections are offered. This sensor is intrinsically-safe and pending certifications for hazardous environments per ATEX, IECEX, FM and CSA requirements.

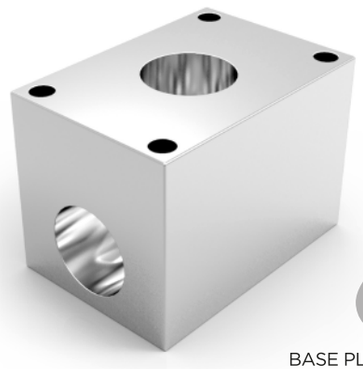
Literature and price quotations are provided upon request.

VEL SENSOR

BETWEEN FLANGES
FOR LARGE PIPES



INSERTION
INTO TANKS
AND BARRELS



BASE PLATES
FLOW THROUGH AND
FOR SMALL PIPES
AND BYPASS

ADVANTAGES

- **Complete autonomous sensor**
- **Small size:** easy integration to process lines
- **Fast dynamic response of the over environment fluctuations** (Temperature)
- **Low maintenance:**
  - · Continuous cleaning during measurement
  - · Auto-calibration
- **Update rate 1Hz**
- **Fluid properties measurements** in HPHT conditions, >150 bars (>2100 psi), 200°C
- **Wetted parts contain latest coating technology:**
  - · Easy cleaning · Reduces fluid adhesion
  - · Added resistance to chemical and abrasive degradation in the working environment

APPLICATIONS

- **Flexographic and rotogravure printing**
- **Fuel quality measurement**
- **Oil condition monitoring**
- **Chemical process control**
- **Percent solids control**
- **...**

TYPICAL FLUIDS

- **Paints and inks**
- **Varnishes and lacquers**
- **Heavy fuel oil**
- **Marine diesel oil**
- **Lubricating oils**

SPECIFICATIONS

PARAMETER	VALUES	
> VISCOSITY		
Range	0.3 to 1000 cP	
Accuracy	0.8% of full scale (typ)	2% of full scale (max)
Repeatability	0.5% of full scale	
> TEMPERATURE		
Range	-55°C to 200°C	-67°F to 392°F
Accuracy	0.1°C	
Repeatability	0.1°C	
> DENSITY		
Range	600 to 2000 kg/m3	0.6 to 2 g/cm3
Accuracy	0.1% of full scale (typ)	0.5% of full scale (max)
Repeatability	0.1% of full scale	
> OPERATION ENVIRONMENT		
Operation temperature	-55°C to 200°C	
Operating pressure	Up to 150 bars	Up to 2175 PSI
> MECHANICAL		
Material	Stainless steel 316, Hastelloy	
L x W x H	6.35 x 6.35 x 30 mm	
Coating	PTFE, DLC (Option)	
Sample volume needed	< 2 ml	
> FEATURES		
Auto-cleaning	Yes	
Auto-range	Yes	
Update rate	1 Hz	
> COMMUNICATION	USB, RS232, Bluetooth, MODBUS RTU / RS485, MODBUS TCP / IEC 62591	
> CERTIFICATIONS	CE, ATEX, IECEX, FM, CSA	

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The future of viscosity control realized.

Fungilab
LEADING VISCOSITY TECHNOLOGY

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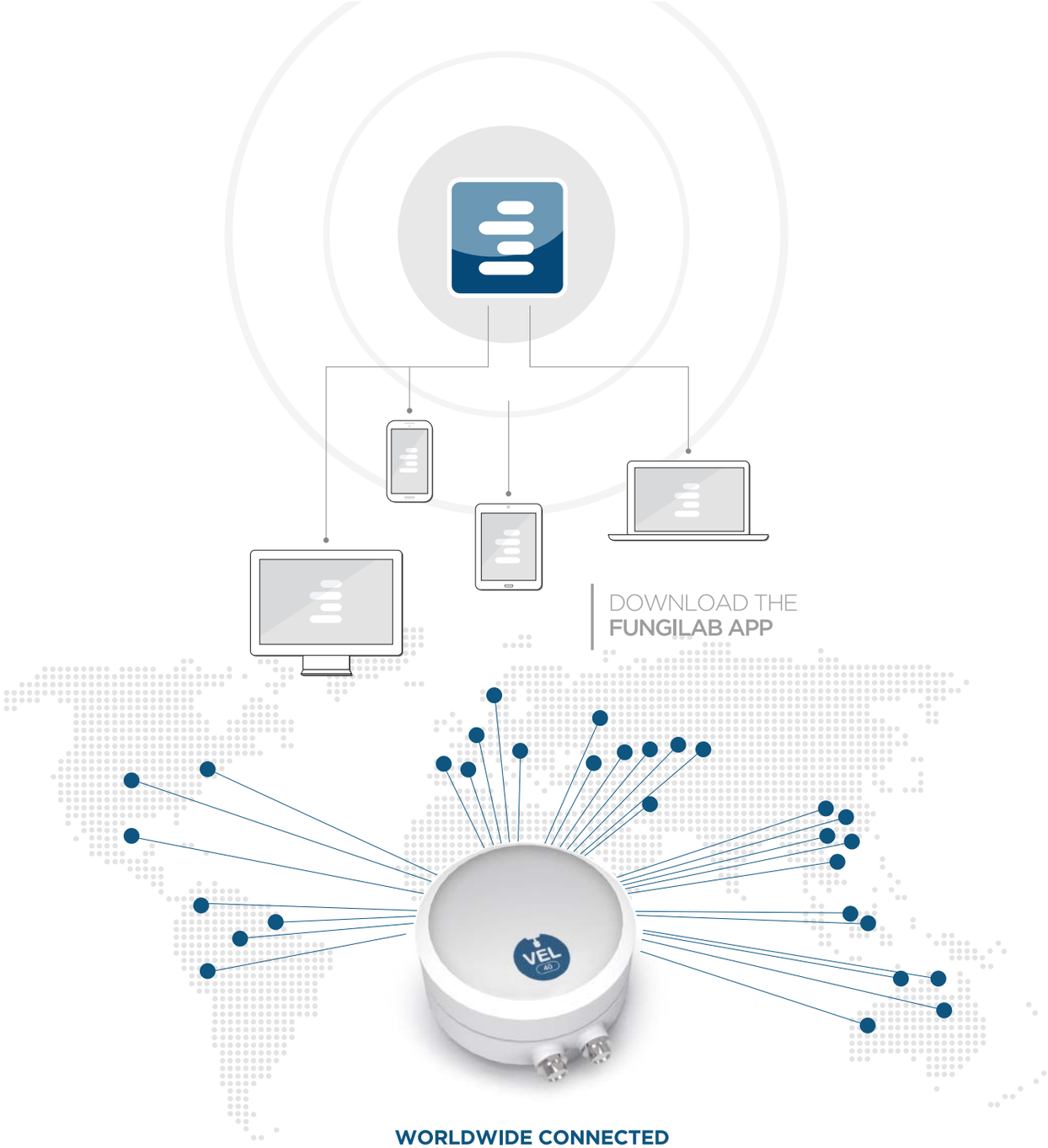

WORLDWIDE CONNECTED