

VAF

INSTRUMENTS



Obsolete



New

Retrofitting

Viscotherm[®] to ViscoSense[®]

732

Information Bulletin

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Introduction

Having over 50 years of experience and more than 50000 systems sold, VAF Instruments is the worldwide market leader for inline viscosity measurement and control systems. ViscoSense® is the latest innovative development in a long history of outstanding viscosity sensors for fuel oil applications. In this most demanding environment of diesel engines on board ships and in land based power plants, VAF Instruments has proven itself with high quality products and a comprehensive and professional customer support.

Accuracy

ViscoSense® is a highly accurate viscosity sensor with a superior measuring principle. This patented measuring principle is based on a torsional vibration of a pendulum in liquid. The measured damping of this piezo-driven vibration is directly related to the viscosity. A built-in temperature sensor is used to measure the temperature at the same location where viscosity is measured.

Reliability

ViscoSense® is able to measure inline the actual dynamic viscosity of a large range of liquids. Due to the operating principle based on a torsional vibration, the measurement is insensitive to unwanted external influences. Flow velocity, flow direction and pulsations have no effect on the sensor operation. The robust built sensor is designed to operate under the most difficult conditions in which a faultless and stable viscosity measurement is required.

Cost-effective operation

The ViscoSense® sensor is developed to measure viscosity without interruptions and with low operating costs. Since the sensor does not actually move, it is not subject to wear and therefore it ensures a long lifetime and a maintenance free operation. The surface of the pendulum (which has undergone special surface treatment to improve its non-stick performances) in combination with a smooth edged design makes the sensor highly insensitive to fouling and easy to clean. The sensor is calibrated for life and the accuracy will be kept without the necessity of re-calibration. Due to its compact design, the sensor is suitable for easy installation in any new or retrofit system.

Consult VAF Instruments for further information.

ViscoSense® is a registered trade mark of VAF Instruments B. V.

Retrofitting

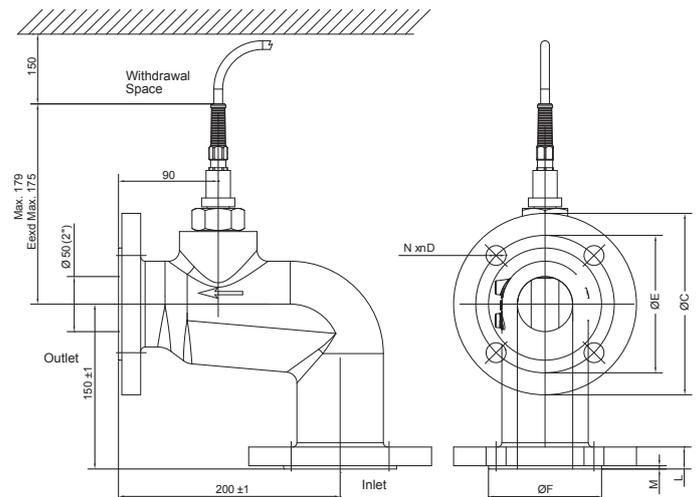
Retrofitting from Viscotherm® to ViscoSense®

Since 1962 VAF Instruments has manufactured the well known VAF Viscotherm® product line. In the year 2000, VAF has introduced the ViscoSense® and in 2007 the ViscoSense®2 has been launched which has been followed up by the ViscoSense®3 in 2014.

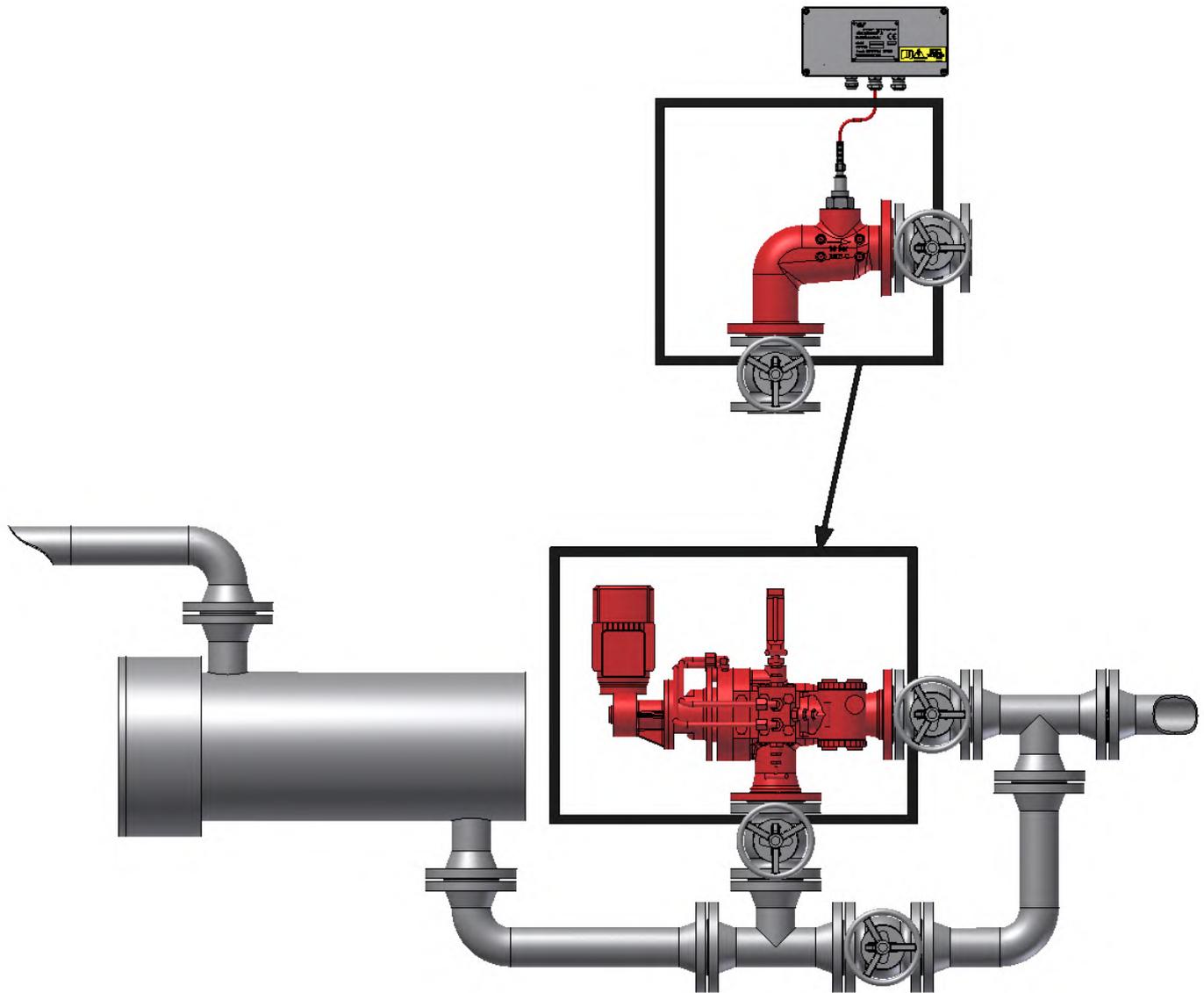
The ViscoSense® is used to measure and control the viscosity of (heavy) fuel oil for ships and power plants engines and replaces the Viscotherm® systems in all applications with the following advantages:

- the sensor is a state-of-the-art design without moving parts;
- the smooth edged design makes it highly insensitive to fouling;
- once calibrated the sensors' accuracy is set for life; this provides you with excellent measurement quality against low operation costs;
- fast and accurate measurement of viscosity and temperature of the fuel oil;
- insensitive to disturbing vibrations;
- temperature measurement standard included.

For replacing a complete conventional Viscotherm® system with a ViscoSense® system an adapter housing is available.



Typical system arrangement



Flange	Max. working pressure [bar]	C	N x ØD	E	F	H	G	L	M
DIN PN16 / 25 / 40	16 / 25 / 40	165	4 x 18	125	102	75	45	20	3
ANSI Class 150RF	20	152,4	4 x 19	120,6	92	75	45	19,1	1,6
ANSI Class 300RF	40	165	4 x 19	127	92,1	84	54	22,2	1,6
JIS 10K	10	155	4 x 19	120	100	75	45	16	2
JIS 16/20K	20	155	4 x 19	120	100	84	54	18	2

Quotation & ordering information

Please supply the following data when ordering a ViscoSense® system or requesting for a quotation:

1. Model and serial number of existing Viscotherm®:

2. Please select the following options:

replacement of sensor and DP transmitter

replacement of controller

replacement of control valve

(replacement of indicator)

Name:

Place and date:

For further information see relevant Product Bulletins
or www.vaf.nl

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Specifications subject to change without notice.

Agents and distributors in more than 50 countries.

