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Covimat 205 DC

The Covimat 205 is a tried-and-tested viscosity measuring device which, when integrated into a production process, **reliably determines the viscosity of a liquid 24 hours a day, 365 days a year.** It provides **measurement data without taking samples** and therefore without labor, material and time loss. The DC model is specially designed for **measurements under pressure and at high temperatures.**

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MEASURING HEAD

The measuring unit of the Covimat 205 contains the electronics, which perform two functions:
- The motor rotates the measuring body at a specified speed.
- It measures the viscosity and outputs a corresponding analog signal.

The speed can be set via a selector switch in 5 fixed steps or specified via an external control signal. The viscosity is measured using a torsion element. A standard 4-20 mA measuring signal proportional to the viscosity is output. This can be recorded or utilized via a control system provided by the customer.

Explosion-proof according to ATEX.

MEASURING CAGE

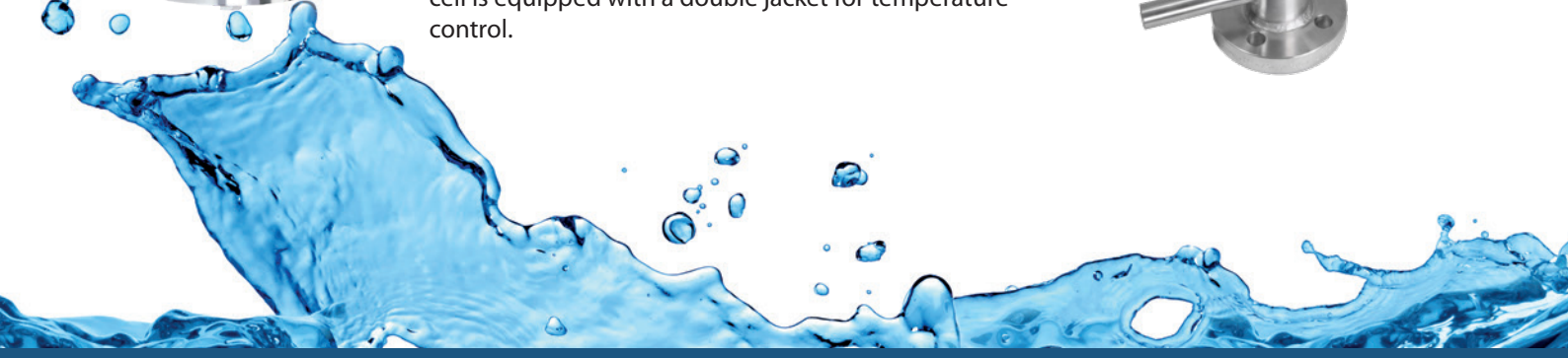
As the Covimat is a classic rotational viscometer, it measures viscosity independently of the density of the medium, unlike oscillating devices or capillary viscometers. The stainless-steel measuring cage forms the measuring gap and enables variable measuring bodies.

MEASURING BOB:

A large selection of different measuring body sizes is available for the various measuring ranges (standard sizes: 24, 35, 51, 57, 59 mm Ø). A double-slit system (DS) is also available for low-viscosity substances. Measuring system bearing: carbide

MEASURING CELL

The DC 40E and DC 40D measuring cells are suitable for continuous viscosity measurement in process systems with medium or high pressure and high temperatures. For direct temperature measurement in the measured substance, a cross connection is prepared for the insertion of a Pt 100 temperature sensor. The DC 40D measuring cell is equipped with a double jacket for temperature control.



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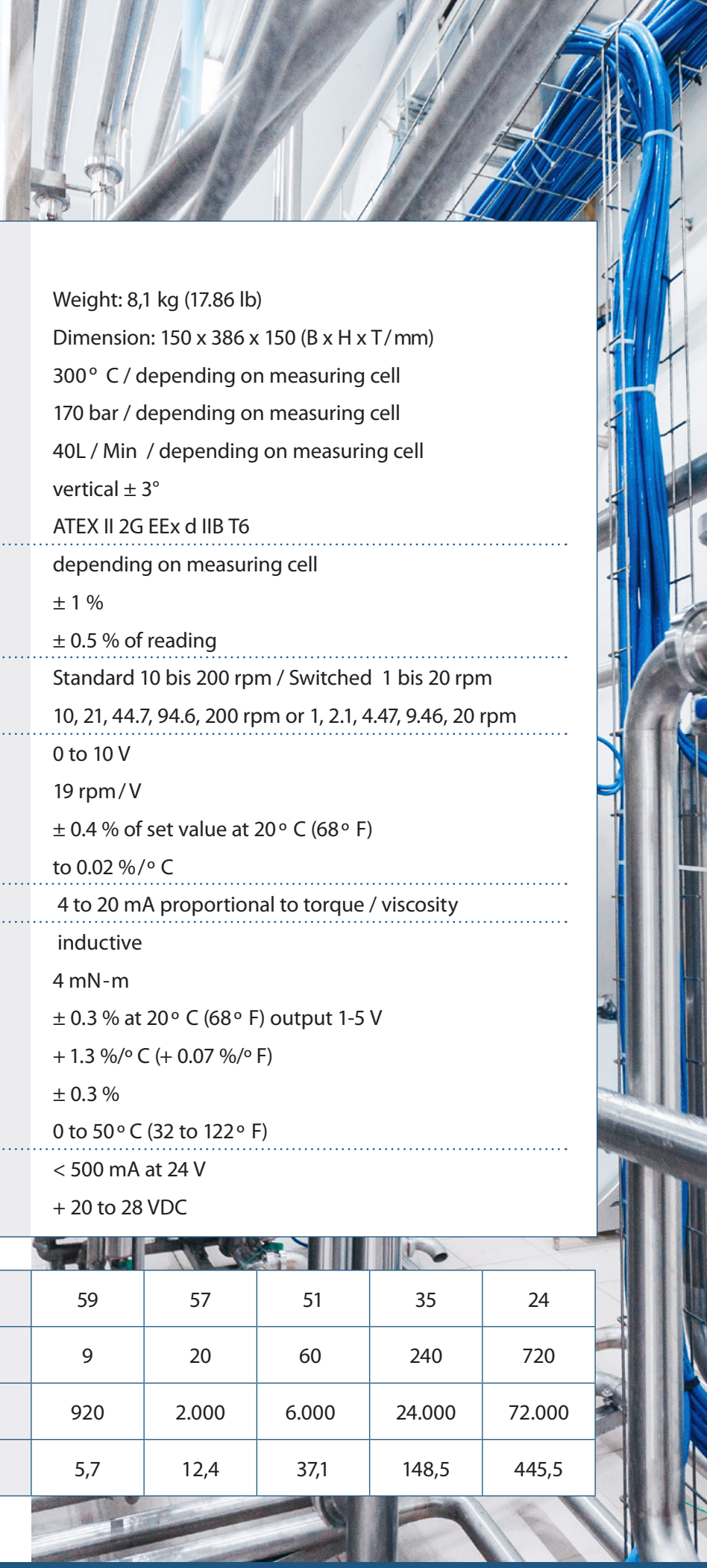

MEASURING BOB

Covimat 205 DC Dimensions	Weight: 8,1 kg (17.86 lb)
	Dimension: 150 x 386 x 150 (B x H x T / mm)
Maximum product temperature	300° C / depending on measuring cell
Maximum pressure	170 bar / depending on measuring cell
Maximum flow rate	40L / Min / depending on measuring cell
Installation	vertical ± 3°
Safety	ATEX II 2G EEx d IIB T6
Viscosity range	depending on measuring cell
Accuracy	± 1 %
Repeatability	± 0.5 % of reading
RPM Range	Standard 10 bis 200 rpm / Switched 1 bis 20 rpm
Fixed Speeds	10, 21, 44.7, 94.6, 200 rpm or 1, 2.1, 4.47, 9.46, 20 rpm
External speed control	0 to 10 V
Transfer function	19 rpm / V
Rotational speed accuracy	± 0.4 % of set value at 20° C (68° F)
Temperature coefficient – speed	to 0.02 % / ° C
Output signal	4 to 20 mA proportional to torque / viscosity
Torsion angle measurement	inductive
Maximum torque	4 mN-m
Torque tolerance	± 0.3 % at 20° C (68° F) output 1-5 V
Termperature coefficient – torque	+ 1.3 % / ° C (+ 0.07 % / ° F)
Linearity	± 0.3 %
Temperature range	0 to 50° C (32 to 122° F)
Supply Current	< 500 mA at 24 V
Supply voltage range	+ 20 to 28 VDC

Measuring bob Ø mm	59	57	51	35	24
Min. Viscosity [mPas]	9	20	60	240	720
Max. Viscosity [mPas]	920	2.000	6.000	24.000	72.000
Resolution [mPas/0,1 mA]	5,7	12,4	37,1	148,5	445,5

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