

1 EC-TYPE EXAMINATION CERTIFICATE



2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 94/9/EC**

3 **EC-Type Examination Certificate No:** FM14ATEX0020X

4 **Equipment or protective system:** 135165, L-Vis 520 Ex Smart Sensor, Inline Viscometer
(Type Reference and Name)

5 **Name of Applicant:** Anton Paar GmbH

6 **Address of Applicant:** Anton Paar Strasse 20,
Graz A-8054,
Austria

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Ltd, notified body number 1725 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3049003 dated 3rd October 2014

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN 60079-0:2012, EN 60079-1:2007, and EN 60529:1991 + A2:2013

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EC-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:



II 2 G Ex d IIB T6 Gb (Max. Medium Temperature $T_{\text{medium}} = 195^{\circ}\text{C}$) IP65



Digitally signed by Nicholas
Ludlam
DN: cn=Nicholas Ludlam,
o=Deputy Certification
Manager, ou=FM Approvals,
email=nicholas.ludlam@fmapp
rovals.com, c=GB
Date: 2014.10.08 10:25:55
+01'00'

Nicholas Ludlam
Deputy Certification Manager, FM Approvals Ltd.

Issue date: 8th October, 2014

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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SCHEDULE

to EC-Type Examination Certificate No. FM14ATEX0020X

13 Description of Equipment or Protective System:

135165, L-Vis 520 Ex Smart Sensor is a flameproof inline viscometer which can be immersed directly in the production liquid. It continuously displays the viscosity at the process temperature and reference temperature allowing 24-hour monitoring of suspensions, lubricants, starch and many more process liquids.

The process liquid flows through the sensor. The viscosity and temperature are measured simultaneously and both are displayed on the screen. Viscosity is determined in the range from 1 to 50,000 mPa.s.

The major components providing the flameproof protection are the motor housing and the terminal housing.

Operation Temperature Ranges:

The ambient operating temperature range is -20°C to 40°C for maximum process temperature of 195°C.

Input Pressure Rating:

The maximum input pressure of the liquid is 25 bar.

Electrical data:

The L-Vis 520 electrical ratings are up to 30 volts dc, 113 watts maximum.

14 Specific Conditions of Use:

1. Contact the manufacturer for flamepath joint design information.
2. The cable glands shall be suitably certified with a minimum rating of IP65.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 Test and Assessment Procedure and Conditions:

This EC-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
8 th October, 2014	Original Issue.

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Blueprint Report

Anton Paar GmbH (119935)

Class No 3615

Original Project I.D. 3049003

Certificate I.D. FM14ATEX0020X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>	<u>Electronic Drawing</u>
C82EK02	A	Kabelsatz Antrieb (NTC Cable Set)	3049003	Yes (pdf)
C82EK03	B	Kabelsatz 1 Gleitschu (PT100 Cable Set)	3049003	Yes (pdf)
C82EK04	C	Kabelsatz 2 Gleitschu (Coil Cable Set)	3049003	Yes (pdf)
C82IB004EN	A	Instruction Manual L-Vis 520	3049003	Yes (pdf)
C82MZ0068	B	Flamepaths L-Vis 520	3049003	Yes (pdf)
C82MZ0080	B	Grouting contacted parts for L-Vis 520	3049003	Yes (pdf)
C82PS01	D	L-Vis 520 Circuit Diagram for Sensor Board	3049003	Yes (pdf)
C82PS02	E	L-Vis 520 Circuit Diagram for Motion Control	3049003	Yes (pdf)
C82PS06	C	L-Vis 520 Circuit Diagram	3049003	Yes (pdf)
C82SL01	D	Label L-Vis 520	3049003	Yes (pdf)