



Member of the FM Global Group

FM Approvals  
1151 Boston Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781-762-9375 [www.fmapprovals.com](http://www.fmapprovals.com)

# CERTIFICATE OF COMPLIANCE

## ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

***P2.3 (P/N 4256XXXX99), P2.4 (P/N 4257XXXX99), P2.5 (P/N 4258XXXX99), P2.83 (P/N 4263XXXX99),  
P2.84 (P/N 4264XXXX99) Rated 115VAC, 50/60Hz, 1.7A and P4.3 (P/N 4280XXXX99), P4.83 (P/N  
4281XXXX99) Rated 115VAC, 50/60Hz, 1.7A . Sample Gas Pumps.***

x = denote power supply, position of pump head, material of pump head, material of valves and accessories (only P4.XX)

### Equipment Ratings:

Industrial electrical equipment meeting basic electrical, mechanical and fire protection requirements.

### FM Approved for:

Bühler Technologies GmbH  
Ratingen D-40880 Germany



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

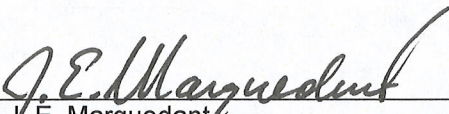
CSA C22.2 61010-1, 2004 Re-affirmed 2009

Original Project ID: 3038101  
Canadian Project ID: 3038101C

Approval Granted: *July 24, 2012*

Subsequent Revision Reports / Date Approval Amended			
Report Number	Date	Report Number	Date

FM Approvals LLC

  
J. E. Marquedant  
Group Manager, Electrical

*24 July 2012*  
Date

# CERTIFICATE OF CONFORMITY



1. **ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM21NCA0007
3. **Equipment:** Model P2.3, P2.4, P2.83, P2.84, P4.3 and P4.83 Sample Gas Pumps  
(Type Reference and Name)
4. **Name of Listing Company:** Bühler Technologies GmbH
5. **Address of Listing Company:** Harkortstrasse 29  
Ratingen  
D-40880  
Germany
6. The examination and test results are recorded in confidential report number:  
3038101C\_Rev120709 dated 24<sup>th</sup> July 2012
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
CAN/CSA-C22.2 No. 61010-1:R2009
8. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

## Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

24 September 2021  
Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

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# SCHEDULE



to Canadian Certificate of Conformity No: FM21NCA0007

9. Equipment Ratings:

The P2.3, P2.4, P2.83 and P2.84 pumps (models 4256\*\*\*\*9\*00, 4257\*\*\*\*9\*00, 4263\*\*\*\*9\*00 and 4264\*\*\*\*9\*00) operate at 115 Vac, at a current of 1.5 to 1.6 A, or 2.3 to 2.78 A, depending upon motor utilized. The P4.3 and P4.83 pumps (models 4280\*\*\*\*9\*00 and 4281\*\*\*\*9\*00) operate at 115 Vac, at a current of 2.55 to 2.8 A. The pumps are rated for an ambient temperature range of -20°C to +60°C.

10. Description of Equipment:

**General** – The sample pumps move sample gases from stacks to an analyzer. A sample pump consists of a motor and a pump head, which can be split by an intermediate flange with variable versions.

**Construction** – The sample pumps are of painted metal construction. The motors for the pumps provide a terminal box fitted with an M16x1.5 cable gland suitable for use with a 6 to 10 mm diameter cable.

**Model types** – Approved model number variants are as defined below.

**42aabcdef9g00. Sample Gas Pumps, where:**

aa = Base model: 56, 57, 63, 64, 80, 81

(where 56 = P2.3, 57 = P2.4, 63 = P2.83, 64 = P2.84, 80 = P4.3, 81 = P4.83)

b = Motor voltage: 2

c = Pump head position: 1, 2

d = Pump head material: 1, 2, 3, 4

e = Valve material: 1, 2

f = Screw-in connections: 9, 1, 2, 3, 5

g = Connection kit for parallel operation: 0, 1, 2

11. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Requirements.

12. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

13. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
24 <sup>th</sup> July 2012	Original Issue.

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# **SCHEDULE**



to Canadian Certificate of Conformity No: FM21NCA0007

Date	Description
24 <sup>th</sup> September 2021	<u>Supplement 1:</u> Report Reference: RR228650 dated 24 <sup>th</sup> September 2021. Description of the Change: Re-create certificate in new format. Reformat model number scheme in Certificate and Approval Guide listing. Refer to FM21CA0055X certificate history for changes to hazardous location pump variants under RR228650.

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# CERTIFICATE OF CONFORMITY



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2. **Certificate No:** FM21NCA0007
3. **Equipment:** Model P2.3, P2.4, P2.83, P2.84, P4.3 and P4.83 Sample Gas  
**(Type Reference and Name)** Pumps
4. **Name of Listing Company:** Bühler Technologies GmbH
5. **Address of Listing Company:** Harkortstrasse 29  
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Germany
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## Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

2 December 2021  
Date

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# SCHEDULE



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# **SCHEDULE**



to Canadian Certificate of Conformity No: FM21NCA0007

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24 <sup>th</sup> September 2021	<u>Supplement 1:</u> Report Reference: RR228650 dated 24 <sup>th</sup> September 2021. Description of the Change: Re-create certificate in new format. Reformat model number scheme in Certificate and Approval Guide listing. Refer to FM21CA0055X certificate history for changes to hazardous location pump variants under RR228650.
2 <sup>nd</sup> December 2021	<u>Supplement 2:</u> Report Reference: RR230190 dated 2 <sup>nd</sup> December 2021. Description of the Change: Addition of alternate motor supplier/type, impacting equipment ratings field of certificate.

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