



EU Type Examination Certificate CML 19ATEX2489X Issue 0

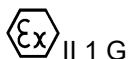
- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **M920 Zero Velocity Pickup**
- 3 Manufacturer **Barksdale, Inc.**
- 4 Address 3211 Fruitland Ave,
Los Angeles,
California 90058,
USA
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-11:2012

EN 60079-18:2015+A1:2017

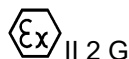
- 10 The equipment shall be marked with the following:



II 1 G

Ex ia IIC T4 Ga

-40°C ≤ Ta ≤ +80°C



II 2 G

Ex mb IIC T4 Gb

-40°C ≤ Ta ≤ +90°C

A Snowden



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11 Description

The M920 Zero Velocity Pickup is a magnetic pick up which is certified for use in areas requiring equipment protection level Gb or, when connected via intrinsically safe barriers, areas requiring equipment protection level Ga.

The equipment comprises a sensing device and circuit board mounted within a sealed stainless steel threaded housing. Electrical connections are provided for power and signal output and these may be via an integral cable or two-part three-pin connector (-P models are for use in intrinsically safe installations only).

The equipment is available with two output voltage options (M920-1 - TTL, M920-2 – $V_{out} = V_{in}$) and with various thread sizes and lengths, and has the following electrical ratings:

Signal	Pin (-P versions)	Wire	Ex mb installations (not -P versions)	Ex ia installations
Vin	A	Red	18V	U _i = 14V I _i = 85mA P _i = 0.3W C _i = 110nF* L _i = 0*
Vout	B	White	18V 10mA	U _i = 14V I _i = 85mA P _i = 0.3W C _i = 110nF* L _i = 0*
Ground	C	Black	N/A	N/A

* These values apply to the equipment supplied without a cable – refer to the conditions of use for parameters of integral cable.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	29 Jan 2020	R12419A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.



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13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each piece of equipment shall be visually inspected. No damage shall be evident, such as cracks in the compound, exposure of encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.
- iii. Each piece of equipment shall be subjected to an electric strength test in accordance with EN 60079-18 Clause 9.2, using a test voltage of 500Vac applied between the terminals and the body of the equipment, for a period of 1 second.

Alternatively:

- a d.c. test voltage of 700V may be applied
- a voltage of 20% higher may be applied for 0.1 second

No flashover or breakdown shall occur.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. Models supplied with an integral connector (-P suffix) shall be installed in intrinsically safe installations only. These models are supplied with a separate certification label and the user shall ensure that the label is attached to the installation, close to the equipment, after installation.
- ii. The equipment may be supplied with an integral cable of variable length with a capacitance of 200pF/m and inductance of 1μH/m or 30μH/Ω. The user shall consider these parameters in conjunction with any additional cabling during the installation of the equipment in intrinsically safe installations.

Certificate Annex

Certificate Number CML 19ATEX2489X
Equipment M920 Zero Velocity Pickup
Manufacturer Barksdale, Inc.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
800-0920	1 of 1	A	28 Jan 2020	Pickup, zero velocity
800-13212	1 of 1	A	28 Jan 2020	Pick up assembly, model M920
105A-13072	1 of 1	C	28 Jan 2020	Housing (Pin Output)
105A-13221	1 of 1	A	28 Jan 2020	Housing, pickup (Wired)
105A-13224	1 of 1	A	28 Jan 2020	Housing, marked
145B-13250	1 of 1	A	28 Jan 2020	Label, Pickup M920 (Pin output)
400A-13239	1 of 1	A	28 Jan 2020	M920-1 Parts list
400A-13240	1 of 1	A	28 Jan 2020	M920-2 Parts list
B800-13242	1 of 1	A	28 Jan 2020	M920 Schematic
800-13241	1 to 2	A	28 Jan 2020	PCB Assembly, Hall effect
015A-13242	1 to 2	A	28 Jan 2020	Raw PCB, Hall Effect Devices