IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 19.0181X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-05-18		
Applicant:	**Barksdale Inc.** 3211 Fruitland Ave Los Angeles, CA 90058 **United States of America**		
Equipment:	**M920 Zero Velocity Pickup**		
Optional accessory:			
Type of Protection:	**Intrinsic safety, encapsulation**		
Marking:	Ex ia IIC T4 Ga (Tamb: -40°C to +80°C) Ex mb IIC T4 Gb (Tamb: -40°C to +90°C)		

Approved for issue on behalf of the IECEx Certification Body: **A Snowdon MIET**

Position: **Assistant Certification Manager**

Signature: (for printed version)

Date: May 18, 2020

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

IECEx Certificate of Conformity

Manufacturer: **Barksdale Inc.**
3211 Fruitland Ave
Los Angeles, CA 90058
United States of America

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CML/ExTR19.0231/00

Quality Assessment Report:

GB/CML/QAR20.0012/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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.

See Annex for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:
See Annex for Specific Conditions of Use.

Annex:

IECEx CML 19.0181X Annex Issue 0.pdf

Annexe to:	IECEx CML 19.0181X Issue 0
Applicant:	Barksdale, Inc.
Apparatus:	M920 Zero Velocity Pickup

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 – Vout = Vin) 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	Ui = 14V Ii = 85mA Pi = 0.3W Ci = 110nF* Li = 0*
Vout	B	White	18V 10mA	Ui = 14V Ii = 85mA Pi = 0.3W Ci = 110nF* Li = 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.

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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 IEC 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.

Specific Conditions of Use

The following conditions relate to the safe use and installation 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.