



Ontploffingvoorkomingstechnologie
Explosion Prevention Technologies

MTEx Laboratories

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INSPECTION AUTHORITY (IA) CERTIFICATE

WIKA INSTRUMENTS (PTY) LTD.
P.O. BOX 75225
GARDENVIEW
2047

Issued: 2023/05/18
Expire: 2026/05/18
Revision: 0
Job File Number: 2186

Applicant:

WIKA INSTRUMENTS (PTY) LTD.

For validity purposes, the following marking must be added to all equipment covered by this certificate:

IA Number: MTEx-S/23.0185 X
Manufacturer: WIKA Alexander Wiegand SE & Co. KG
Supplier: WIKA Instruments (Pty) Ltd.
Equipment: Pressure Gauge and Temperature Gauge
Model/Type: PGU23.1a0-bcd, PGU26.1a0-bcd and TGU73.1a0-bcd
Ex Rating: Ex ia IIC T4 Ga
Ex ia IIC T4 Gb
Serial No: All units imported between the issue and expiry dates of this Certificate.

Standards used:

SANS 60079-0: 2019 Ed.6 IEC 60079-0: 2017 Ed.7	Explosive atmospheres – Part 0: General requirements.
SANS 60079-11: 2012 Ed.4 IEC 60079-11: 2011 Ed.6	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i".

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

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(3) of the Occupational Health and Safety Act, provided that the apparatus is used as prescribed in accordance with:

- 1) Any conditions set out in this Certificate.
- 2) This certificate only covers equipment imported between the "Issued" and "Expiry" dates.
- 3) When the supporting Q.A.N. (Quality Assurance Notification) of the equipment manufacturer expires, it is the responsibility of the applicant (as mentioned above) to submit a valid Q.A.N to MTEx Laboratories.
- 4) The test results presented in this "Ex" Test Report relate only to the item or product testing.
- 5) Note: It is the responsibility of the supplier to ensure that the marking label complies with the requirements of the relevant regulator.
- 6) This Certificate validates all units imported between Issued and Expiry dates.

Reviewed by + Signature (ExTL):	A. van Niekerk	
Approved by + Signature (ExCB): (MTEx Laboratories Technical Signatory)	D. Young	



Megaton Systems (Pty) Ltd.
T/A MTEx Laboratories



Website: www.mtexlab.co.za
Reg No: 2012/055110/07
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MTEx Laboratories is an Accredited Test Laboratory (ATL) in terms of the
ARP 0108: "Regulatory Requirements for Explosion-Protected Apparatus"

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1. OVERVIEW

The gauges are intended for use with an intrinsically safe battery-powered device of ignition protection type "ia", e.g. a radio module, and are supplied with one intrinsically safe supply/signal circuit.

Type Code	
<u>Pressure gauge</u>	<u>Temperature gauge</u>
PGU23.1a0-bcd	TGU73.1a0-bcd
PGU26.1a0-bcd	

- a Nominal size 0
 = 100 mm 6 =
 160 mm
- b gauges with explosion protection
 A,I,M,U,V
- c Type of ignition protection
 I= intrinsic safety
- d Zone
 A = Zone 0 Gas [Ex ia IIC T4 Ga]
 B = Zone 1 Gas [Ex ia IIC T4 Gb]

2. REASON FOR REVIEW

Revision 0: ARP 0108 requirement (Initial IA Certificate).

3. DOCUMENTATION PROVIDED

- IECEx Certificate of Conformity (IECEx BVS 22.0036X Issue 0).
- EU-Type Examination Certificate (BVS 20 ATEX E 099 X Issue 00).
- IECEx Quality Assessment Report (DE/BVS/QAR07.0010/18).

4. ELECTRICAL / SAFETY PARAMETERS

Electrical parameters			
Max. input voltage	U _i	DC	7 V
Max. input current for gas atmosphere	I _i		250 mA
Max. input power	P _i		330 mW
Effective internal capacitance	C _i		4.75 µF
Effective internal inductance	L _i		negligible
Temperature range			
Ambient temperature range			-40 °C ≤ T _{AMBIENT} ≤ + 60°C
Media temperature range			-40 °C ≤ T _{MEDIA} ≤+100°C

5. INSTALLATION INSTRUCTIONS

The instructions provided with the product shall be followed in detail to assure safe operation.

6. CONDITIONS OF CERTIFICATE (X)

- Due to separation requirements of IEC/SANS 60079-11 the IS-circuit and the enclosure shall be considered as being galvanically connected. The functional separation is ensured. The gauge shall be included in the equipotential bonding / grounding of the application via process connection.
- Intensive charging processes shall be avoided for use of the gauge in areas requiring EPL Ga equipment.

MTEEx Laboratories

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MTEEx Laboratories takes no responsibility for any non-conforming tests / assessments / results which is not in compliance with the relative Standards. By marking the equipment as mentioned in the documentation, the manufacturer takes full responsibility that the equipment has indeed complied with the original type assessment and has been subjected to any routine verification(s) / test(s) respectively.

End of Certificate