



सीएसआईआर - केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान  
CSIR - CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH  
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)  
(COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH)

बरवा रोड, धनबाद, झारखंड - 826015, भारत  
BARWA ROAD, DHANBAD, JHARKHAND - 826015, INDIA

ज्वालासह एवं उपकरण सुरक्षा / FLAMEPROOF & EQUIPMENT SAFETY  
परीक्षण प्रमाण पत्र / TEST CERTIFICATE



NABL Certificate No.  
TC-5962

TYPE EXAMINATION CERTIFICATE

FORMAT NO.: (CIMFR: DQM: FLP02: F-01: REV-01)  
(Flameproof & Equipment Safety)

Certificate No.: CMF 21 INEx 0294

ULR No.: TC596221000000349F

Dated: 02/08/2021  
(Issue No. 0)

1. Applicant : M/s. TRI-FLP Engineers Pvt. Ltd.,  
Gala No. 7, Plot No. A-164, 165 and 166,  
Ground Floor, Gulmohar Park, Gulmohar Park Road,  
Phase I, MIDC, Chole Village, Dombivli,  
Thane, Maharashtra, 421204.
2. Manufacturer : Same as Above.
3. Equipment : FLP/WP Thermocouple Head with Sensor
4. Designated by : Type No.: TFE-THS-02.
5. Type of protection : Ex db, Gas Group: IIC, EPL Gb/Db.
6. Marking : (Ex db IIC T6 Gb) (Ex tb/tc IIIC T85°C Db/Dc)

This certificate is issued as verification that a sample/documentation was assessed and found to comply with the IS/IEC Standard list below. This certificate relates to only design and construction of the equipment. It does not cover requirement related to manufacturing process and usage.

7. Standard: 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:

IS/IEC 60079-0:2017	Explosive atmospheres – Part 0: General requirements.
IS/IEC 60079-1:2014	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”.
IS/IEC 60079-31:2013	Explosive atmospheres – Part 31: Equipment Dust ignition protection by enclosure “t”.

This type test certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the standards listed above.

8. Degree of ingress protection: IP-67 (O ring 3mm thick gasket ) as per IS IEC 60529:2001(Reaffirmed 2014)

9. Test & Assessment Reports: A sample(s)/documents of the equipment listed have successfully meet the examination and test requirements as recorded in IN/CIMFR/TR21/P/ 1276 Dated: 3 August, 2021.

*2.8.21*



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**SCHEDULE**

10. Description of equipment: FLP/WP Thermocouple Head with Sensor, Type No.: TFE-THS-02, Rated at 15A, 15 to 250V AC/DC, material of construction Cast Aluminium Alloy LM-6 with 4mm minimum wall thickness.

Description/Size	Volume (cc)		Dimension (mm)	Min. Wall Thickness (mm)	Nos. & Size of Bolts/Fasteners
	Gross	Nett			
Single Enclosure	200	150	Ø90x100	4	Threaded

13. Drawings:

Sl. No.	Drg. No.	Title	Sheet	Rev.	Date
1.	DRW-TFE-THS-02	Flameproof Weatherproof Thermocouple Head with sensor	1 of 1	0	23/02/2021

12. Routine Testing: A routine overpressure test in accordance with IS IEC 60079-1:2014 clause 16 shall be carried out at a pressure of 9Kg/cm<sup>2</sup> for a period of at least 10 seconds and test results must be recorded. The overpressure test shall be considered satisfactory, if no permanent deformation or damage invalidating type of protection is observed, the joints shall in no place have been permanently enlarged and no leakage through the walls of the enclosure is observed.

13. Specific conditions of use: Not Applicable

14. Details of certificate changes (for issue 1 and above): Not applicable.

15. Additional Information: It may be used at 60°C amb with tempratue class T5.

16. History: (CMF 21 INEx 0294 Dated: 02/08/2021, Issue No. 0)

Approved for issued on behalf of CIMFR  
Position

Dr. A. K. Singh  
Chief Scientist & HORG

*This Institute reserves the right to review, amend or withdraw this Type Examination certificate at any time if considered necessary in the interest of safety.*

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