Type Examination Certificate

for Electrical Equipment used in Potentially Explosive Atmosphere

Issued by Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK		
Applicant	Keit ltd Unit 4 Zephyr Building, Harwell Campus, Oxfordshire OX11 0RL	
Manufacturer name	Keit ltd Unit 4 Zephyr Building, Harwell Campus, Oxfordshire OX11 0RL	
Product name	FTIR Spectrometer	
Type/model code	IRmadillo See attachment 1	
Type of protection	Flameproof	
Group, Temperature Class and EPL	IIB+H_2, T4, Ga/Gb	
The equipment shall be marked with the following	Ex db IIB+H_2 T4 Ga/Gb	
Ratings	See attachment 1	
Special condition for safe use	See attachment 2	
Certificate number	**CML 21JPN1201X**	
Term of validity	From 12-04-2021 to 11-04-2024	

This is to certify that the equipment specified above complies with the requirements stipulated in Ordinance on Examination of Machines and Other Equipment of the Ministry of Health, Labour and Welfare, Japan.

Issue date: 12-04-2021

Signature of chief examiner:

Attachment 1: Ratings and model codes

ASM0627-08 - E - A - x - x - xx Tamb = -15°C to +40°C. TANALYTE = -15°C to +80°C
ASM0627-08 - E - C - x - x - xx, See below table:

Ambient and analyte temperature			
Connector option M =			
	= 25	= D	= K
M	T_{amb} = -15°C to +49.5°C $T_{ANALYTE}$= -15°C to +80°C	T_{amb} = -20°C to +49.5°C $T_{ANALYTE}$= -20°C to +80°C	T_{amb} = -15°C to +49.5°C $T_{ANALYTE}$= -15°C to +220°C
H or T	T_{amb} = -15°C to +54.5°C $T_{ANALYTE}$= -15°C to +80°C	T_{amb} = -20°C to +54.5°C $T_{ANALYTE}$= -20°C to +80°C	T_{amb} = -15°C to +54.5°C $T_{ANALYTE}$= -15°C to +220°C
G	T_{amb} = -15°C to +60.9°C $T_{ANALYTE}$= -15°C to +80°C	T_{amb} = -20°C to +60.9°C $T_{ANALYTE}$= -20°C to +80°C	T_{amb} = -15°C to +60.9°C $T_{ANALYTE}$= -15°C to +220°C
Analyte pressure			
Min	1 bara/0 barg	1 bara/0 barg	0.3 bara
Max	20 barg	20 barg	42.37 bara

Attachment 2: Special condition for safe use

The following are special conditions for safe use:

1. The media to be monitored must be in an area where dust particles are excluded.
2. The DIP probe must be mounted so that is it protected from impact.
3. On equipment fitted with DIP probe option ‘K’, the rate of change of temperature on the end of the probe must be limited to 50°C per minute maximum.
4. It is responsibility of the manufacturer, installer and end user to ensure chemical compatibility between the process analyte and the cone glass and sealing O-ring materials.
5. Model Dependant Specific Conditions of Use

Option	Applicable Specific Condition of Use
M	Isolate equipment from power supply before disconnecting either connector.
H	Fit protective caps to connectors immediately following separation. When wired data communications (Option U) also chosen, equipment must be isolated from power supply before data connector is disconnected
T	(no additional conditions)
G	When used for terminating braided cables, glands are only suitable for fixed applications. Cables must be effectively clamped to prevent pulling or twisting.