Regional NSW

Registration No MDR 141807 GD-2
Reference CERT0007219

NOTICE OF REGISTRATION OF PLANT DESIGN (PLANT USED TO DETERMINE OR MONITOR THE PRESENCE OF GAS)

You are notified that the design of the item of plant (used to determine or monitor the presence of gas) detailed below has been registered in accordance with Part 5.3 of the *Work Health and Safety Regulation 2017* and clause 177(1) of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.*

The conditions of registration in the attached Schedule have been imposed. You must comply with the conditions of registration in accordance with section 45 of the *Work Health and Safety Act 2011.*

Name of the registration holder:	Nautitech Mining Systems Pty Ltd ABN 40 094 272 616, ACN 094 272 616	
Address of registration holder:	Unit 3/9 Packard Ave CASTLE HILL NSW 2154	
Plant design registration number:	MDR 141807 GD-2	
Date the registration was granted:	21 December 2018	
Date the amendment was granted:	21 July 2022	
Type of plant design:	Plant used to determine or monitor presence of gas, used in underground coal mines	
Description of plant:	Group I Single Gas Detector	
Make number (if applicable):	Methane Master with Integral RapidSense	
Model number (if applicable):	ME5070-2-99-140: Nautitech flameproof enclosure including an LCD Display with: • ME5070-2-0-12-005: I.S CH4 sensor interface board, and • ME5070-2-99-112: RapidSense IS CH4 sensor assembly, with Snout Configuration Type “A” or Type “B” and • ME5070-2-04-009: Fitting and connector assembly, including optional cartridge heating element, and • ME5070-2-19-009: RapidSense methane sensor element.	
Drawing numbers:	Snout Configuration Type “A”	Snout Configuration Type “B”
	ME5070-2-99-140-A, Rev. 3 ME5070-2-04-009-A, Rev. 6 & 8 ME5070-2-19-009-A, Rev. 7 ME5070-2-99-112-A, Rev. 5 ME5070-2-99-139-A, Rev. 3	ME5070-2-99-140-A, Rev. 4 ME5070-2-04-009-A, Rev. 6 & 8 ME5070-2-19-009-A, Rev. 7 ME5070-2-99-112-A, Rev. 6 ME5070-2-99-139-A, Rev. 4
Standards specified for the purpose of this design registration	*Registration of Design of Plant Used to Determine or Monitor the Presence of Gas Order 2015* published in NSW Government Gazette No 52 of 26 June 2015, pages 1852 to 1855	

For any enquiries, please phone Mining Authorisation Team on 1300 814 609 or email mca@planning.nsw.gov.au.

Garvin Burns
Chief Inspector of Mines
Resources Regulator
Signed under delegation from the Secretary, Regional NSW

21 July 2022

DESIGN REGISTRATION HISTORY

Registration	Date	Comment
MDR 141807 GD-0	24 June 2014	Original issue
MDR 141807 GD-1	23 October 2017	Software change to 1.02.01 V2
MDR 141807 GD-2	17 December 2018	Inclusion of Methane Master enclosure and display. New sintered filter (brass or black plastic) and an optional heater circuit. Software change to 2.0.0
MDR 141807 GD-2	25 January 2019	Minor correction of error in the Output Mode to “CAN bus”
MDR 141807 GD-2	13 July 2022	Variation of the design geometry of the external mechanical snout arrangement which now includes an "A" and "B" Type configuration. Amendments to Certification Drawing No's: ME5070-2-25-048-A, ME5070-2-25-017-A, ME5070-2-04-009-A, ME5070-2-99-112-A, ME5070-2-99-139-A and ME5070-2-99-140-A. Addition of IECEx Certificate of Conformity No’s. IECEx MSC 21.0004X and IECEx MSC 21.0007X. Addition of Product Manual PR5070101-A-05 (30/06/22). Addition of optional cartridge heating element. Addition of Software Version 2.0.2. Addition of Performance Test Report No’s. T21-00678 (12/04/22) and T21-00350 (25/08/21).
MDR 141807 GD-2	XX July 2022	Minor correction – to correct error in MDR number

SCHEDULE – Conditions of registration

1. Detailed description

ME5070-2-99-140: Nautitech flameproof enclosure (Ex d I/IIC T5 Mb Gb), as certified under IECEx ITA 13.0021X or IECEx MSC 21.0004X including an LCD Display with:

- ME5070-2-0-12-005: I.S CH4 sensor interface board, and
- ME5070-2-99-112: NTMS RapidSense CH4 gas sensor housing, as certified under IECEx ITA 12.0007X or IECEx MSC 21.0007X, and
- ME5070-2-04-009: Fitting and connector assembly, including heater element, and
- ME5070-2-19-009: 0-5% RapidSense methane sensor element.

Gas Detected	Sensor Description	Range	Output Mode
Methane	ME5070-2-19-009	0-5%	CAN bus

2. Documents to be provided

The following documents must be provided to each person to whom the design and/or plant used to determine or monitor the presence of gas is supplied.

DOCUMENT No.	ISSUE	DATE	TITLE
PR5070101-A-03	03	28/09/18	Product Manual – RapidSense Ex ia Stand-alone CH_4 Gas Sensor
IECEx ITA 13.0021X	2	04/10/18	IECEx Certificate of Conformity – Remote CH4 Monitor
IECEx ITA 12.0007X	1	23/11/15	IECEx Certificate of Conformity – Camera or Display / Instrument housing
OR			
PR5070101-A-05	05	30/06/22	Product Manual – RapidSense Ex ia Stand-alone CH_4 Gas Sensor
IECEx MSC 21.0004X	0	05/05/21	IECEx Certificate of Conformity – Remote CH4 Monitor
IECEx MSC 21.0007X	0	04/04/22	IECEx Certificate of Conformity – Camera or display / instrument housing ME5060-0-18-0**

3. Conditions on the registration holder

3.1 There must be no alternation(s) in the materials, design or construction of the plant used to determine or monitor the presence of gas from those detailed in the MSTC Instrument Evaluation Report No's. T21-00678 and T18-00506/001 V2 as well as this Notice of Registration of Plant Design (Plant used to Determine or Monitor the Presence of Gas).

3.2 The following information must be inscribed on a durable plate fixed in a prominent position on the plant used to determine or monitor the presence of gas:

a) design registration number MDR 141807 GD-2, and

b) name of the registration holder.

3.3 The registration holder must ensure that each item of the plant used to determine or monitor the presence of gas, under MDR 141807 GD-2, which supplied to a NSW underground coal operation is checked to ensure it conforms to this Notice of Registration of Plant Design (Plant used to Determine or Monitor the Presence of Gas).