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

UNIT VERIFICATION

Certificate No.:	**IECEx ExTC 22.0008X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2022-06-03		
Applicant:	**Hynds Pipe Systems Ltd** 25 Arwen Place Auckland 2013 **New Zealand**		
Equipment:	**Smarterwater Wastewater Manhole Sensor**		
Serial number(s) or Unique Identification:	**See certificate annex for details**		
Type of Protection:	**Intrinsic safety 'i'**		
Marking:	Ex ic IIB T4 Gc Ta: -10 °C to +65 °C		

Approved for issue on behalf of the IECEx Certification Body:	**David Price**
Position:	**Certification Authority**
Signature: (for printed version)	
Date: (for printed version)	2022-06-03

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:

Ex Testing and Certification Pty Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia

TESTING & CERTIFICATION

IECEx Certificate of Conformity

Manufacturer: **Hynds Pipe Systems Ltd**
25 Arwen Place
Auckland 2013
New Zealand

Manufacturing locations: **Hynds Pipe Systems Ltd**
25 Arwen Place
Auckland 2013
New Zealand

This Unit verification certificate is issued as verification that the Apparatus identified on page 1, was assessed and tested and found to comply with the IEC Standard list below. 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

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 Reports:

AU/ExTC/ExTR21.0012/00 AU/ExTC/ExTR22.0024/00

Quality Assessment Report:

As this is a Unit Verification Certificate, no QAR is applicable as this certificate is specific to the items listed by serial number or other unique identification.

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

The Hynds Smarterwater Wastewater Manhole Sensor is an intrinsically safe water level sensor that uses radar to measure the water level in a manhole.

The equipment has two main parts: an enclosure housing the electronics including the radar and batteries, and an antenna that projects out of the manhole to transmit Sigfox signals.

Continued in certificate annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The batteries shall not be replaced by the user

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Additional information:
ExTC Job 22028

Annex:

IECEx ExTC 22.0008X-0 Annex.pdf

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Annexe

Annexe for Certificate No.:	IECEx ExTC 22.0008X	Issue No.:	0

Description (continued from certificate body):

The enclosure is an annular shape with a diameter of 160 mm with one flattened side. It is manufactured from a dark red non-metallic material and provides IP67 ingress protection to the internal circuits.

The antenna is a disk of diameter 112 mm with a threaded shaft protruding from the bottom. It is primarily composed of metal with a black non-metallic cover on the top.

The equipment is intended to be mounted to a metallic manhole cover using the shaft of the antenna as a bolt that passes through the centre of the enclosure which is secured by a nut.

The circuits inside the enclosure are connected to the antenna by an SMA connector on the enclosure.

The equipment is powered by two primary cells which are not intended to be replaced by the user or intended to be replaced in the hazardous area.

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Annexe

Annexe for Certificate No.:	IECEx ExTC 22.0008X	Issue No.:	0

Equipment serial numbers:

7FECAB	7FECCD	7FED14	7FED1C	7FED20	7FED23	7FED26	7FED32
7FED45	7FED6C	7FED7C	7FED85	7FED8D	7FED8F	7FEDA0	7FEDAD
7FEDB5	7FEDC5	7FEDD4	7FEDE7	7FEDE9	7FEDF8	7FEDFB	7FEE08
7FEE10	7FEE1E	7FEE1F	7FEE32	7FEE60	7FEE81	7FEE8D	7FEE8E
7FEE91	7FEE92	7FEE96	7FEE99	7FEE9B	7FEEA5	7FEECD	7FEEE0
7FEEE4	7FEEF8	7FEF01	7FEF05	7FEF11	7FEF14	7FEF15	7FEF1B
7FEF2F	7FEF4A	7FEF55	7FEF56	7FEF60	7FEF65	7FEF6F	7FEF88
7FEF89	7FEF94	7FEF99	7FEF9B	7FEFAE	7FEFB1	7FEFBD	7FEFBE
7FEFE7	7FEFE8	7FEFF1	7FEFF2	7FEFF3	7FEFF9	7FF000	7FF036
7FF03A	7FF03C	7FF03F	7FF04D	7FF04F	7FF063	7FF20C	7FF244
7FF261	7FF264	7FF2A0	7FF2B8	7FF2C2	7FF2D0	7FF31F	7FF343
7FF3B6	7FF3C3	7FF6BC	824493	824526	824527	824535	824537
82453C	824540	824542	82454C	82454F	824572	824580	824581
8245A4	8245A6	8245B4	8245C7	8245CB	8245E9	824612	824614
82461D	82462C	82462E	824637	82463B	824647	82464D	82464E
824650	824656	824657	82467B	82467C	82469D	8246A1	8246A8
8246B6	8246BB	8246D1	8246F2	8246F6	8246F8	824709	82470C
824E29	824E31	824E55	824E7F	824E91	824EE7	824EE8	824EF8
824F25	824F26	824F31	824F32	824F46	824F53	824F61	824F73
824F8F	824F9D	824F9E	824FA2	824FA3	824FBB	824FBC	824FC6
824FC8	825008	82500D	82500F	825011	82501D	825059	82505A
82505C	82505E	82505F	825070	825071	825074	825082	825085
825088	825098	8250C4	8250C5	8250C7	8250CD	8250E0	8250E3
8250E5	8250E7	825102	82512C	82514A	825159	82515C	825160
825169	82516C	82516D	82516F	8251C9	8251D5	8251D6	

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Annexe

Annexe for Certificate No.:	IECEx ExTC 22.0008X	Issue No.:	0

Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents

Title:	Drawing No.:	Pages	Rev. Level:	Date:
SMART COVER WAST (Schematic and PCB layout)	-	10	L	2022-05-12
BOM for PCB_Project Smarter Cover Wast RevL	-	1	B	2021-09-10
Technical Support Sheet - Installation & Maintenance Instructions Smarterwater® Wastewater Manhole Sensor	TSS S1.3IMI	8	3.2	2022-05
Antenna Lid ASM Smart Water (exploded view)	200454	1 of 2	-	2020-11-16
Antenna Lid ASM Smart Water (potting details)	200454	2 of 2	-	2020-11-16
Assembly Smarter Water EX (exploded view)	201079	1	01	2021-04-19
Housing Smarter Water EX	201080	2	01	2021-07-05
Lid Smarter Water EX	201081	2	01	2021-07-05
Cable Cover Smarter Water EX	201083	1	01	2021-07-06
PCBA SMARTER WATER MH EX	201248	1	02	2022-04-27
Label Manhole sensor EX - 50x20mm	201282	1	02	2022-05-12