1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 15ATEX2039X** Issue: **1**

4 Equipment: **Model SMV 800 Series Transmitters**

5 Applicant: **Honeywell, Inc.**

6 Address: 512 Virginia Drive
Fort Washington
Pennsylvania 19034
USA

(These products may be manufactured at any Honeywell Facility listed on Quality Assurance Notification DEKRA 13ATEXQ0161 that has been audited for the manufacture of the type of protection listed)

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012/A11:2013 EN 60079-1:2007 EN 60079-11:2012 EN 60079-26:2007
EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 1 G
Ex ia IIC T4 Ga
Ta = -50°C to +45°C (FISCO)
Ta = -50°C to +70°C (non-FISCO)
IP66/IP67

II 1/2 G
II 2 D
Ex d IIC T6...T5 Ga/ Gb
Ta = -50°C to 65°C or -50°C to 85°C
Ex tb IIIC T95°C...T125°C Db
Ta = -50°C to 85°C
IP66/IP67

Project Number 70057500

N Jones
Certification Manager

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom

Tel: +44 (0) 1244 670 900
Fax: +44 (0) 1244 539 301
Email: ukinfo@csagroup.org
Web: www.csagroupuk.org

SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **Sira 15ATEX2039X**
Issue 1

13 **DESCRIPTION OF EQUIPMENT**

The Model SMV 800 Series transmitters are permanently connected devices intended to measure temperature and pressure of an industrial process and provide a digital output signal to communicate the measured value. The digital output signal uses HART, DE, Foundation Fieldbus, or Profibus Protocols. Optionally, the Model SMV 800 Series transmitters are available with no display or an Advanced Display which includes an LCD display visible through a window cover. The Top Nameplate conceals three magnetic push buttons for configuration purposes. The Model SMV 800 Series transmitters have been evaluated for the following process connections.

1. A810: -25 to +25 mbar in H2O, -62.5 to 62.5 mbar (100psi); -50°C to +125°C
2. A845: -400 to +400 mbar in H2O, -1000 to 1000 mbar (1500psi); -50°C to +125°C
3. G870: -400 to +400 mbar in H2O, -1000 to 1000 mbar (3000psi); -50°C to +125°C

The Model SMV 800 Series transmitters are assessed for (a) Intrinsic Safety "i" and (b) Explosionproof / Flameproof "d", Dust Ignitionproof "t".

Communication Protocol	**Intrinsic Safety** (Ex ia IIC)	**Explosionproof and Dust-Ignitionproof** (Ex d IIC and Ex tb IIIC)
HART/DE	Ui = 30 Vdc, Ii = 225 mA, Pi = 900 mW, Ci = 4 nF, Li = 9 µH, Co = 39 µF, Lo = 4.99 µH	11 to 42 Vdc, 4 to 20mA
Foundation Fieldbus/Profibus	Ui = 30 Vdc, Ii = 225 mA, Pi = 1.0 W, Ci = 0 nF, Li = 0 µH, Co = 39 µF, Lo = 4.99 µH	9 to 32 Vdc, 25 mA max
Foundation Fieldbus/Profibus (FISCO)	Ui = 17.5 Vdc, Ii = 380 mA, Pi = 5.32 W, Ci = 0 nF, Li = 0 µH, Co = 39 µF, Lo = 4.99 µH	N/A
Note: The supplies to the Model SMV 800 Series transmitters are intended to be fully floating, and are not expected to be connected to an earth return.		

Model SMV 800 Series transmitters are a permanently connected device intended for process pressure measurements and remote temperature measurements.

The enclosure consists of epoxy-polyester powder coated painted cast aluminum, stainless steel and glass. The glass lens of the window cover is cemented in place by means of Dow Corning RTV-734 silicone elastomer cement. A total of three Parker Hannifin 2-142 S0604-70 and 2-130 S0604-70 elastomeric red silicone o-rings are provided on the two threaded covers and the threaded sensor adapter. No plastic materials are used for the external enclosure.

The overall physical dimensions of Model SMV 800 Series transmitters are 110 mm x 125.9 mm x 198.8 mm (L x W x H). The mass is approximately 3.8 kg. The free internal volume of the equipment is 280 cm^3 with two solid covers installed. The free internal volume of the equipment is 288 cm^3 with one solid cover and one window cover installed.

The model designation is as follows:

- SMa-b-c-defghi-j-k-lmn-opq-r-stv-w-x

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom

Tel: +44 (0) 1244 670 900
Fax: +44 (0) 1244 539 301
Email: ukinfo@csagroup.org
Web: www.csagroupuk.org

Where:

a = A810, A845, or G870 (Process Ambient Span)
b= S1, S2 (Temperature Sensor input)
c= 0, (Digital Output)
d = 1, 2, 3, 4, 5, 6, 7, 8, A, B, C, D, E, F, G, H, J, or K (Materials of Construction)
e = 1, 2, 3, or 4 (Fill Fluid)
f = A or H (Process Connections)
g = C, S, N, K, M, D, or B(Bolt Materials)
h = 1, 2, 3, 4, 5, or 6 (Vent/Drain Type/Location)
i = A, B, or C (Gasket Material)
j = 1, 2, or 3(Head/Connect Orientation)
k = B (Agency Approval, B=CSA Approved for Canadian and USA)
l = A, B, C, D, E, F, G, or H (Electronic housing material and entry type)
m = H, D, F, or P (Output/Protocol)
n = 0, A, D, E, H, or J (Customer Interface Selections)
o = 1, 2, 3, or 4 (Application Software)
p = 1, 2, 3, 4, 5, or 6 (Output Limit, Failsafe & Write Protect Settings)
q = S or C (General Configuration)
r = A, B, C, D, E, F, G, or H (Accuracy and Calibration Settings)
s = 0, 1, 2, 3, 4, 5, 6, or 7 (Mounting Bracket)
t = 0, 1, or 2 (Customer Tag)
v = A0, A2, A6, A7, A8, or A9 (Conduit Plugs & Adapters)
w = Two digit alphanumeric code (General options that do not impact certification)
x = Four digit alphanumeric code (Factory identification)

Variation 1 - This variation introduced the following changes:

i. Addition of ferrite beads for EMC protection.
ii. Update Entity Parameters, the description was amended accordingly.
iii. Updated drawings.
iv. Updated model designation, the description was amended accordingly.
v. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-31:2013 was replaced by EN 60079-31:2014,

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	22 May 2015	R70012030A	The release of the prime certificate.

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SCHEDULE

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Issue 1

Issue	Date	Report number	Comment
1	25 May 2016	R70057500A	This Issue covers the following changes: • EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)* • The introduction of Variation 1.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1. **Intrinsic safety "i" items only** - the enclosure is manufactured from low copper, aluminum alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a zone 0 location.

15.2. **Intrinsic safety "i" items only** - if a charge-generating mechanism is present, the exposed painted metallic part on the enclosure is capable of storing a level of electrostatic charge that could become incendive for IIC gases. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. earthing the metallic part. This is particularly important if the equipment is installed in a zone 0 location. Cleaning of the painted surface shall only be done with a damp cloth.

15.3. **Flameproof "d" and dust ignition "t" enclosure items only** - if a charge-generating mechanism is present, the exposed painted metallic part on the enclosure is capable of storing a level of electrostatic charge that could become incendive for IIC gases. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. earthing the metallic part. Cleaning of the painted surface shall only be done with a damp cloth.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 **Intrinsic safety "i" items only** - in accordance with IEC 60079-11:2011 clause 10.3, each manufactured sample of the equipment shall be subjected to an electric strength test using a test voltage of 500 Vac applied between all input terminals and the enclosure for 60 seconds. Alternatively, a voltage of 20% higher may be applied for 0.1 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.

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17.4 **Intrinsic safety "i" items only** - each manufactured sample shall withstand a pressure test of 1.5 times the maximum working pressure on meterbody.

17.5 **Flameproof "d" and dust ignition "t" enclosure items only -** each manufactured sample shall withstand a pressure test of 1.5 times the maximum working pressure on meterbody.

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Certificate Annexe

Certificate Number: **Sira 15ATEX2039X**

Equipment: **Model SMV 800 Series Transmitters**

Applicant: **Honeywell, Inc.**

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
30752785	1 of 1	22	26 Feb 15	O-Ring End Cap (TAB-019) and Meter Body (TAB-018)
30754791	1 of 1	12	26 Feb 15	Sensor/Header Assembly
30756659	1 to 2	3	26 Feb 15	Datasheet 3 W Zener Diode SMD VR2, VR3, VR5, VR6
50000536	1 of 1	B	26 Feb 15	Screw, SEMS M 3.5
50000547	1 of 1	F	26 Feb 15	Plug, M20 Dome Head (TAB-001)
50000682	1 of 1	D	26 Feb 15	½ NPT Male to ¾ NPT Female
50001644	1 to 4	A	26 Feb 15	Datasheet 60 V, 3 A, 2.25 W Schottky Diode CR1, CR2, CR5 (TAB-001)
50006328	1 to 3	B	26 Feb 15	Datasheet 1.5 µF ± 20%, 50 V Blocking Capacitor C75, C76, C77 (TAB-150)
50021832	1 of 1	F	26 Feb 15	Plug, Pipe Headless Socket (TAB-001)
50023593	1 to 4	B	26 Feb 15	Datasheet 0.05 A Fuse, F1, F2 (TAB-001)
50028178	1 of 1	B	26 Feb 15	Ground Clamp Transmitter
50028180	1 of 1	B	26 Feb 15	M4 x 12 Terminal SEMS with Square Washer
50049712	1 to 11	C	26 Feb 15	Meter Body Assy, DP and GP
50049713	1 to 2	G	26 Feb 15	Digital Meter Body Assembly
50049713-BOM	1 to 10	F	26 Feb 15	Digital Meter Body Assembly-BOM
50049827	1 of 1	C	26 Feb 15	Solid End Cap (AL)
50049829	1 of 1	C	26 Feb 15	Meter End Cap (AL)
50049830	1 of 1	A	26 Feb 15	Glass
50049832	1 to 2	B	26 Feb 15	End Cap with Window assembly
50049842	1 of 1	A	26 Feb 15	Screw Terminal
50049847	1 to 2	A	26 Feb 15	Advanced Display Molding
50049861	1 to 2	A	26 Feb 15	Connector 14 Pin Shrouded
50049874	1 of 1	C	26 Feb 15	Terminal Lug
50049882	1 of 1	A	26 Feb 15	Solid End Cap (SS)
50049884	1 of 1	A	26 Feb 15	Meter End Cap (SS)
32307374	1 of 1	A	14 May 15	Agency Nameplate ATEX
50049892	1 to 5	E1	26 Feb 15	SMV800 Control Drawing
50049903	1 to 4	C	26 Feb 15	Transmitter Housing (AL) ½ NPT (TAB-001) and M20 (TAB-002)
50049912	1 to 2	A	26 Feb 15	Basic Display Molding
50052624	1 of 1	C	26 Feb 15	Ribbon Cable Assembly
50052625	1 of 1	C	26 Feb 15	PWB Advanced Display
50052626	1 to 4	C	26 Feb 15	PWA Advanced Display
50052626-001	1 to 3	G	26 Feb 15	BOM Advanced Display
50052627	1 to 2	C	26 Feb 15	Schematic Advanced Display
50053143	1 to 3	D	26 Feb 15	Sensor PWA Drawing
50053143-001	1 to 2	E	26 Feb 15	BOM, PWA Sensor – Long Cable
50053144	1 to 2	C	26 Feb 15	Schematic, Sensor
50053313	1 to 4	A	26 Feb 15	Datasheet Gas Discharge Tube GT1
50055607	1 to 7	A	26 Feb 15	Datasheet 5.6 V ± 5%, 3 W Zener Diode D1, D2, D3, D4, D5, D6 (TAB-007)
50057413	1 to 2	B	26 Feb 15	Datasheet Encapsulation Material Polyurethane resin (TAB-001, and -002)
50057516	1 to 2	A	26 Feb 15	Shunt Black

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Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
50058539	1 to 2	A	26 Feb 15	Datasheet Spot Encapsulation Material, 60-7170 One Part Epoxy
50059984	1 to 4	A	26 Feb 15	RTV 734 Silicone Adhesive
50065673	1 of 1	B	26 Feb 15	PWB Basic Display
50065674	1 to 4	B	26 Feb 15	PWA Basic Display
50065674-001	1 to 2	D	26 Feb 15	BOM Basic Display
50065675	1 of 1	B	26 Feb 15	Schematic Basic Display
50067848	1 to 4	A	26 Feb 15	Datasheet Double Diode CR2 (TAB-001)
50067849	1 to 4	A	26 Feb 15	Datasheet Double Diode CR3 (TAB-001)
50097008	1 to 2	A	26 Feb 15	Nameplate, Product ID
50075243	1 to 3	A	26 Feb 15	Datasheet 8.2 nF ± 5%, 50 V Blocking Capacitor C15, C21 (TAB-822) and 10 nF ± 5%, 50 V Blocking Capacitor C28 (TAB-103)
50076212	1 to 4	A	26 Feb 15	Datasheet 1 A, 100 V Schottky Diode CR1 (TAB-001)
50084781	1 to 4	A	26 Feb 15	Datasheet Transformer T1
50085082	1 to 3	B	26 Feb 15	Printed Wiring Board – Terminal block HART/DE
50085083	1 to 3	B	26 Feb 15	Printed Wiring Board ASSY SMV800 Temperature DE/HART
50085083-001	1 to 5	C	26 Feb 15	Parts List Temperature/Terminal DE/HART – Single Input w/o LP SMV800
50085083-003	1 to 5	B	26 Feb 15	Parts List Temperature/Terminal DE/HART – Single Input w/ LP SMV800
50085084	1 to 6	B	26 Feb 15	Schematic, SMV800 Terminal Block Board HART/DE
50085883	1 to 3	A4	26 Feb 15	PWA FF Terminal Boards
50085884	1 to 3	A5	26 Feb 15	PWB FF Terminal Boards
50085884-001	1 to 4	A5	26 Feb 15	BOM FF Terminal Boards Single Input without Lightning protection
50085884-003	1 to 4	A5	26 Feb 15	BOM FF Terminal Boards Single Input with Lightning Protection
50085885	1 to 6	A7	26 Feb 15	Schematic FF Terminal Boards
50086420	1 to 3	A4	26 Feb 15	Terminal Block Molding
50086422	1 to 2	A	26 Feb 15	Communication Molding
50087657	1 of 1	A	26 Feb 15	PWB HART/DE Comm Board
50087658	1 to 3	A	26 Feb 15	PWA HART/DE Comm Board
50087658-001	1 to 3	A	26 Feb 15	BOM HART Comm Board
50087658-002	1 to 3	D	26 Feb 15	BOM DE Comm Board
50087659	1 to 3	A	26 Feb 15	Schematic HART/DE Comm Board
50087660	1 of 1	A	26 Feb 15	PWB HART Reed Switch
50087661	1 to 2	A	26 Feb 15	PWB Assembly HART Reed Switch
50087661-001	1 to 2	A	26 Feb 15	BOM SL Series HART Reed Switch
50087662	1 of 1	A	26 Feb 15	Schematic HART Reed Switch
50087795	1 of 1	A1	26 Feb 15	PWB FF Comm Board
50087796	1 to 3	A1	26 Feb 15	PWB Assembly FF Comm Board
50087796-001	1 to 3	A	26 Feb 15	BOM FF Comm Board
50087797	1 to 2	A1	26 Feb 15	Schematic FF Comm Board
50087798	1 of 1	A1	26 Feb 15	PWB FF Reed Switch
50087799	1 to 3	A1	26 Feb 15	PWA FF Reed Switch

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom

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Certificate Annexe

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Equipment: **Model SMV 800 Series Transmitters**

Applicant: **Honeywell, Inc.**

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
50087799-001	1 to 3	A	26 Feb 15	BOM FF Reed Switch with Reed Switches
50087799-002	1 to 4	A	26 Feb 15	BOM SL Series FF Reed Switch without Reed Switches
50087800	1 to 2	A1	26 Feb 15	Schematic SL Series FF Reed Switch
50091228	1 to 2	D	14 May 15	Label, FISCO (FF)
500959824	1 to 7	A1	26 Feb 15	SMV 800 Agency Drawing
51190131	1 to t	C	26 Feb 15	Datasheet Resistor, Surface Mount, 1/10W, Film, 0805, 1%
51192117	1 to 21	C	26 Feb 15	Datasheet Optocoupler U5 (TAB-156)
51309673	1 of 1	D	26 Feb 15	Sensor/Header Assembly, SMV
51451813	1 to 2	K	26 Feb 15	DP Barrier Diaphragm, CFF
51451815	1 of 1	B	26 Feb 15	Weld Ring, CFF
51451816	1 to 3	K	26 Feb 15	Dual Head Gauge Pressure Meterbody
51451863	1 to 2	F	26 Feb 15	Barrier Diaphragm Assy CFF
51451864	1 to 4	K	26 Feb 15	Digital Meter Body Assembly DPI and GPI
51453103	1 to 5	C	26 Feb 15	Meter Body Assembly. DP/I & GP/I CFF
S-12927-C	1 to 8	33	26 Feb 15	Date Coding and Serialization

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
S-12927-C	1 to 8	36	20 Apr. 16	Date Coding and Serialization
34-ST-33-75	1 to 3	30 Oct 15	20 Apr. 16	Loop Ferrite Core Instruction Sheet
32301350	1 to 4	A	20 Apr. 16	Ferrite Core
32307374	1 of 1	B	20 Apr. 16	Agency Nameplate ATEX
50000536	1 of 1	E	20 Apr. 16	Screw, SEMS M 3.5
50021832	1 of 1	G	20 Apr. 16	Plug, Pipe Headless Socket (TAB-001)
50049827	1 of 1	D	20 Apr. 16	Solid End Cap (AL)
50049829	1 of 1	D	20 Apr. 16	Meter End Cap (AL)
50049832	1 to 2	D	20 Apr. 16	End Cap with Window assembly
50049903	1 to 4	G	20 Apr. 16	Transmitter Housing (AL) ½ NPT (TAB-001) and M20 (TAB-002)
50052626-006	1 to 3	A	20 Apr. 16	BOM Advanced Display
50052626	1 to 4	E	20 Apr. 16	PWA Advanced Display
50052627	1 to 2	D	20 Apr. 16	Schematic Advanced Display
50086420	1 to 4	C	20 Apr. 16	Terminal Block Molding
50097008	1 to 2	A	20 Apr. 16	Product ID Nameplate
5128060	1 to 3	B	20 Apr. 16	SMV800 Control Drawing

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