1. TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**

3. **Type Examination Certificate No:** **FM08ATEX0061X**

4. **Equipment or protective system: (Type Reference and Name)** **D441, D450 and D451 Digital Epic Transmitter**
D530, D540 and D550 Digital Epic 2 Transmitter

5. **Name of Applicant:** **Westlock Controls Corp.**

6. **Address of Applicant** **280 Midland Ave,**
Saddle Brook, New Jersey 07663, USA

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

8. FM Approvals Europe Ltd, certifies that this component 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 confidential report number:

   3033906EC dated 5th October 2009

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

   EN IEC 60079-0:2018, EN IEC 60079-7:2015+A1:2018, EN 60529:1991+A1:2000+A2:2013

10. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11. This Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include:

    Epsilon X accompanied by additional marking defined in the Annex.

13. **Description of Equipment or Protective System:**

Certificate issued by: Martin Crowe

September 18, 2023

Certification Manager, FM Approvals Europe Ltd. Date: 18 September 2023

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals Europe Ltd. One Georges Quay Plaza, Dublin. Ireland. D02 E440
T: +353 (0) 1761 4200 E-mail: atex@fmapprovals.com www.fmapprovals.com

Refer to Annex

14. **Specific Conditions of Use:**

    1. The User shall permanently mark the protection type chosen. Once the type of protection has been marked it shall not be changed.
    2. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
    3. The equipment shall be used in an area of not less than pollution degree 2, as defined in IEC 60664-1.

15. **Essential Health and Safety Requirements:**

    The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. **Test and Assessment Procedure and Conditions:**

    This Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

    Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

    This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17. **Schedule Drawings**

    A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by FM Approvals Europe Ltd.

18. **Certificate History**

    Details of the supplements to this certificate are described below:

Date	**Description**
30 October 2009	Original Issue.
26 October 2010	Supplement 1: Report Reference: Supplement 1 to 3033906EC dated 26th October 2010 Description of the Change: Addition of D441 and D451 Models.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

Date	Description
8 June 2016	Supplement 2: Report Reference: RR203850 dated 2nd May 2016. Description of the Change: 1) Update to the standards used. 2) Increase in ambient temperature range. 3) Update to critical drawings. 4) Update product model code.
5 December 2016	Supplement 3: Report Reference: 3051545 dated 2nd December 2016. Description of the Change: Addition of Digital Epic 2 Models D530, D540 and D550.
16 August 2017	Supplement 4: Report Reference: RR210593 dated 15th August 2017. Description of the Change: Minor documentation update.
14 May 2018	Supplement 5: Report Reference: – PR449447 dated 1st May 2018. Description of the Change: Addition of D450 Redundant isolated output signal option.
6 April 2023	Supplement 6: Report Reference: -PR463111 dated 3rd April 2023. Description of the Change: 1. Files transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809." 2. Update EN IEC 60079-0 to 2018 Edition 3. Change Level of Protection "nA" to "ec" resulting in removal of EN 60079-15:2010 and addition of EN IEC 60079-7:2015 +A1:2018 4. Remove Energy Limitation Parameters from certificate 5. Addition of Specific Condition of Use concerning pollution degree 2 6. Update to documentation
18 September 2023	Supplement 7: Report Reference: PR462298 dated 13 September 2023. Description of the Change(s): Change certificate to new format and addition of UKEX certification.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

ANNEX

D441

Markings:

II 3 G Ex ec IIC T4 Gc Ta = *, IP66/67
*Ta = -40°C to +65°C for the factory fitted solenoid valve and -40°C to +80°C when supplied without a solenoid valve.

Description of Equipment:

The D441 Digital Epic Transmitter is a positioning transmitter. The unit's electronic operates on a 4 to 20 mA current loop. The circuitry for the D441 is contained within a single printed circuit board that is mounted in a stainless steel enclosure. The enclosure has a rating of IP66/67.
D441-abcdef. Digital Epic Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 0, 1, 2
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 3V8, 2VY, 5VY, 2V7, 3V7, 580, 3VY, 3VZ or 540
e = Valve Features: 0, V, I
f = Override Option: 0, M, L, R, N, E

D450

Markings:

II 3 G Ex ec IIC T4 Gc Ta = *, IP66/67
*Ta = -40°C to +65°C for the factory fitted solenoid valve and -40°C to +80°C when supplied without a solenoid valve.

Description of Equipment:

The D450 Digital Epic Transmitter is a positioning transmitter. The unit's electronic operates on a 4 to 20 mA current loop. The circuitry for the D450 is contained within a single printed circuit board that is mounted in a stainless steel enclosure. The enclosure has a rating of IP66/67.
D450-abcdef. Digital Epic Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 0, 1, 2
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 3V8, 2VY, 5VY, 2V7, 3V7, 580, 3VY, 3VZ or 540
e = Valve Features: 0, V, I
f = Override Option: 0, M, L, R, N, E

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

D451

Markings:

II 3 G Ex ec IIC T4 Gc Ta = *, IP66/67
*Ta = -40°C to +65°C for the factory fitted solenoid valve and -40°C to +80°C when supplied without a solenoid valve.

Description of Equipment:

The D451 Digital Epic Transmitter is a positioning transmitter. The unit's electronic operates on a 4 to 20 mA current loop. The circuitry for the D451 is contained within a single printed circuit board that is mounted in a stainless steel enclosure. The enclosure has a rating of IP66/67.
D451-abcdef. Digital Epic Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 0, 1, 2
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 3V8, 2VY, 5VY, 2V7, 3V7, 580, 3VY, 3VZ or 540
e = Valve Features: 0, V, I
f = Override Option: 0, M, L, R, N, E

D530

Markings:

II 3 G Ex ec IIC T4 Gc Ta = -40°C to +65°C, IP65

Description of Equipment:

The D530, Digital Epic 2 Transmitter is a rotary and linear valve position transmitter. The circuitry for the D530 is contained on a hockey puck assembly that is mounted in a two piece enclosure. The D530 contains a non-metallic housing and has an IP65 rating.
D530-abcdefgh. Digital Epic 2 Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 00, 11, 1N, 1B
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 540, 2V7, 3V7, 5V7, 3V8, 580
e = Override Option: 0, M, L, R, N, E
f = Approval options: IS
g = Conduit options: 1, 2, 3, 4, up to three

D540

Markings:

II 3 G Ex ec IIC T4 Gc Ta = *, IP66/IP67

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

*Ta = -40°C to +65°C for the factory fitted solenoid valve and -40°C to +80°C when supplied without a solenoid valve.

Description of Equipment:

The D540 Digital Epic 2 Transmitter is a rotary and linear valve position transmitter. The circuitry for the D540 is contained on a hockey puck assembly that is mounted in a two piece enclosure. The D540 has an aluminum enclosure and is rated of IP66/67.

D540-abcdef. Digital Epic 2 Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 00, 11, 1N, 1B
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 540, 2V7, 3V7, 5V7, 3V8, 580
e = Override Option: 0, M, L, R, N, E
f = Approval Options: IS
g = Conduits: 1, 2, 3, 4 up to two

D550

Markings:

II 3 G Ex ec IIC T4 Gc Ta = *, IP66/IP67
*Ta = -40°C to +65°C for the factory fitted solenoid valve and -40°C to +80°C when supplied without a solenoid valve.

Description of Equipment:

The D550 Digital Epic 2 Transmitter is a rotary and linear valve position transmitter. The circuitry for the D550 is contained on a hockey puck assembly that is mounted in a two piece enclosure. The D550 a stainless steel enclosure and has a rating of IP66/67.

D550-abcdef. Digital Epic 2 Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 00, 11, 1N, 1B
c = Coil Voltage: 0, D
d = Valve Body: 2V3, 3V3, 5V3, 3V4, 540, 2V7, 3V7, 5V7, 3V8, 580
e = Override Option: 0, M, L, R, N, E
f = Approvals: F
g = Conduits: 1, 2, 3, 4, up to three

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

Blueprint Report

Westlock Controls Corp (1000004327)

Class No 3610

Original Project I.D. 3033906

Certificate I.D. FM08ATEX0061X

Drawing No.	Revision Level	Drawing Title	Last Report
EL-20689 page 1	E	Fabrication Board Digital EPIC (HART) I.S. Verision	3033906
EL-20689 page 2	E	Fabrication Board Digital EPIC (HART) I.S. Verision	3033906
EL-20769-001	09/09/11	Assembly Drawing EPIC HART	RR203850
EL-20769	-	Fabrication drawing	3033906
EL-30505 page 1	F	Assembly Drawing Digital EPIC (HART) I.S. Version	RR210593
EL-30505 page 2	F	Assembly Drawing Digital EPIC (HART) I.S. Version	RR210593
EL-30505 page 3	F	Assembly Drawing Digital EPIC (HART) I.S. Version	RR210593
EL-30558	-	PCB Assembly EPIC2 Hall Sensor Board	3051545
EL-30564-001 BOI	A	Bill of Materials EL-30564	3033906
EL-30564-001 Pag	-	Assembly Drawing EPIC HART Page 1	3033906
EL-30564-001 Pag	-	Assembly Drawing EPIC HART Page 2	3033906
EL-30564-001	09/09/11	Fabrication Drawing EPIC HART & FF EPIC	RR203850
EL-30614 BOM	-	Bill of Materials EPIC 2 Non-intrusive calibration board	3051545
EL-30614	-	Assembly Drawing EPIC 2 Non-Intrusive Calibration Board	3051545
EL-30631 BOM	-	Bill of materials EPIC 2 Hall Sensor Board	3051545
EL-30632 BOM	-	Bill of Materials EPIC 2 Hall Sensor Holder Board	3051545
EL-30632	-	Assembly drawing EPIC 2 Hall Sensor Holder Board	3051545
EL-40238	-	Module ASY DEPIC 2	3051545
EL20689	E	Fabrication Drawings Digital Epic (HART) IS Version	RR203850
EL30505	E	Assembly Drawing Digital Epic (HART) IS Version	RR203850
EL30712	-	ASSEMBLY DRAWING DUAL HALL POSITION SENSOR BOARD	PR449447
EN-061203UK-XX	B	Cover Moulding. LG2, flat AVID - Ribbed	3051545
EN-11512-XXX	C	Cover Moulding. LG2, flat AVID - Ribbed	3051545
EN-11543 Page 1	E	HSG MLD LG2 (N), Ribbed, Grilamid, Black	3051545
EN-11543 Page 2	E	HSG MLD LG2 (N), Ribbed, Grilamid, Black	3051545
EN-11543 Page 3	E	HSG MLD LG2 (N), Ribbed, Grilamid, Black	3051545
EN-11543 Page 4	E	HSG MLD LG2 (N), Ribbed, Grilamid, Black	3051545
GA-011201UK	A	LG2 (N) GA with Dual Coil; STD BCN & NAMUR Shaft	3051545
LB-11276-XXX Pa	J	ID LBL D441/D450/D451 ATEX-IECEx EXIA EXEC	PR462298
LB-11276-XXX pa	J	ID LBL D441/D450/D451 ATEX-IECEx EXIA EXEC	PR462298
LB-11741-XXX-Pa	C	ID LBL D530/D540/D550 ATEX EXIA/EXEC	PR462298
LB-11741-XXX-Pa	C	ID LBL D530/D540/D550 ATEX EXIA/EXEC	PR462298
MS-10772	B	CERTIFICATION DRAWING D441 /D450/D451 ATEX	PR449447
MS-10783	B	Control Drawing Digital EPIC 441, 450, 451 I/S Installation	3051545
MS-10873	-	Certification Drawing D530	3051545
MS-10874	-	Certification Drawing D540/D550	3051545
MS-10886 page 1	-	Control Drawing Digital EPIC 2 I/S Installation	3051545
MS-10886 page 2	-	Control Drawing Digital EPIC 2 I/S Installation	3051545
SC-10211	30 E	Digital Epic (HART) IS Version	3051545
SC-10246 for EL3(	25	Bill of Materials Digital EPIC 2 Top CPU Board	3051545
SC-10246 for EL3(	25	Digital EPIC 2 Top CPU Board	3051545
SC-10247 for EL-3	26	Bill of Materials Digital EPIC 2 Bottom I-O Board	3051545
SC-10247 for EL-3	26	DEPIC2 HART BOTTOM I-O BOARD	3051545
SC-10256 for EL3(	23	Bill of Materials Digital EPIC 2 Middle Board	3051545
SC-10256 for EL3(	26	Digital EPIC 2 BOT-IO Board	3051545
SC-10264 for EL3(	04	Bill of Materials Manifold Pressure Sensor Board	3051545
SC-10264 for EL3(	04	Manifold Pressure Sensor Board	3051545

Electronic Drawing

Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (excel)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (excel12book)
Yes (excel)
Yes (excel)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (excel)
Yes (pdf)
Yes (excel)
Yes (pdf)
Yes (excel)
Yes (pdf)
Yes (excel)
Yes (pdf)

SC-10266 for EL-3	02	Digital EPIC 2 (HART) Switch Board	3051545
SC-10276 for EL3(	00	EPIC 2 Hall Sensor Board	3051545
SC-10277 for EL3(	00	EPIC 2 Hall Sensor Holder Board	3051545
SC10211	30E	DIGITAL EPIC (HART) IS VERSION	RR203850
SC10303	02	DUAL HALL POSITION SENSOR BOARD	PR449447
SC10xxx for EL-30	05	Bill of Materials for EPIC2 Membrane Keypad	3051545
SC10xxx for EL-30	05	EPIC2 Membrane Keypad	3051545
TECH 422	F	D441/D450/D451 Operating Manual	PR462298
TECH-511Q	C	DEPIC 2 HART Position Transmitter Operating Manual	PR462298
VA-30783-XXX	-	DEPIC2 Manifold ASY NPT/BSP Ports	3051545

Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (excel12mebook)
Yes (pdf)
Yes (pdf)
Yes (pdf)
Yes (pdf)