CERTIFICATE OF CONFORMITY

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** **FM16US0058X**
3. **Equipment:** **DIGITAL EPIC D441, D450, & D451**
   (Type Reference and Name) **DIGITAL EPIC 2 D530, D540 & D550**
4. **Name of Listing Company:** **Westlock Controls**
5. **Address of Listing Company:** **280 Midland Ave, Bldg Z2-C2**
   Saddle Brook, NJ 07662
   United States
6. The examination and test results are recorded in confidential report number:

   3039301 dated 25th October 2010

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

   FM Class 3600:2011, FM Class 3610:2015, FM Class 3611:2004, FM Class 3810:2005, ANSI/IEC 60529:2014

8. 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.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

Certificate issued by:

J.E. Marquedant
Manager, Electrical Systems

2 December 2016
Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE

US Certificate Of Conformity No: FM16US0058X

10. Equipment Ratings:

DIGITAL EPIC D441, D450, & D451
Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G Hazardous (Classified) Locations per "Entity" requirements in accordance with the installation drawing, MS-10772 and non-incendive for Class I, Division 2, Groups A, B, C, and D hazardous (classified) indoor and outdoor locations.

DIGITAL EPIC 2 D530, D540 & D550
Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G Hazardous (Classified) Locations per "Entity" requirements in accordance with the installation drawing, MS-10886 and non-incendive for Class I, Division 2, Groups A, B, C, and D hazardous (classified) indoor and outdoor locations.

11. The marking of the equipment shall include:

DIGITAL EPIC D441, D450, & D451

Class I Division 1, Groups A, B, C, D; T4 Ta = *; Type 4X, and 6P, IP67

Class I, Division 2, Groups A, B, C, D; T4 Ta = *; Type 4X, and 6P, IP67

Class II, Division 2, Groups F, G; T4 Ta = *; Type 4X, and 6P, IP67

* See Ratings

DIGITAL EPIC 2 D530, D540 & D550

Class I Division 1, Groups A, B, C, D; T4 Ta = *

Class I, Division 2, Groups A, B, C, D; T4 Ta = *

Class II, Division 2, Groups F, G; T4 Ta = *

Enclosure Rating; See Ratings below

* See Ratings

12. **Description of Equipment:**

General - The D441, D450, D451, D530, D540 and D550 Digital Epic Transmitter are Rotary/Linear Valve Position Transmitters.

Construction - The circuitry for the D450 and D451 is contained on a single printed circuit board that is mounted in a stainless steel two piece enclosure. The circuitry for the D441 is housed within a two piece aluminium enclosure. Encloure ratings are Type 4X, and 6P, IP67

The circuitry for the D530, D540 and D550 is contained on a hockey puck assembly that is mounted in a two piece enclosure. The D540 has an aluminium enclosure, the D550 a stainless steel enclosure and the D530 a non-metallic housing. Enlcosure ratings are Type 4X, and IP66/67 for the D540 and D550 and Type 4X for the D530.

Ratings - The unit's electronics operates on a 4 to 20 mA current loop. The ambient operating temperature

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range is for the metallic housing variants is -40°C to 80°C and for the non-metallic housing variants is -25°C tio +65°C. A +65°C limit for ambient temperature applies to all variants with a Westlock Controls fitted solenoid valve.

Energy Limitation Parameters D441, D450, D451
Ui = 30 Volts, Ii = 100 mA, Pi = 0.75 W, Ci = 0, Li = 4 µH

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-abcdef. Digital Epic Transmitter.
a = Application Type: LV, LR, RO, RR
b = ESD/PST: 0, 1, 2
c = Coil Voltage: 0, I
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

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

Energy Limitation Parameters D530, D540 and D550
Ui = 30 Volts, Ii = 100 mA, Pi = 0.75 W, Ci = 4nF, Li = 32 µH

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-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

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g = Conduits:1, 2, 3, 4 up to two

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

13. **Specific Conditions of Use:**

1. The Model D540 enclosure contains aluminum and is a potential risk of ignition by impact or friction. Care shall be taken into account during installation and use to prevent impact or friction. Similar care must be taken for models D530 and D550 equiped with aluminum valve bodies.

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

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
25th October 2010	Original Issue.
8th June 2016	Supplement 1: 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 documentation. 4) Update product model code.
2nd December 2016	Supplement 2: Report Reference: – 3051545 dated 2nd December 2016 Description of the Change: Addition of Digital Epic 2 Models D530, D540 and D550. Update to the standards used for D441, D450 and D451.

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