

# **Certificate of Compliance**

Certificate: 70130633 Master Contract: 154155

**Project:** 70130633 **Date Issued:** 2017-05-12

**Issued to:** Westlock Controls Corporation

280 North Midland Ave Suite 258 Saddle Brook, New Jersey 07663

**USA** 

Attention: Anthony R. Paolini

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Konstantin Rybalko

Konstantin Rybalko

#### **PRODUCTS**

CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity-- For Hazardous Locations - Certified to US Standards

Class I, Div. 1, Groups A, B, C & D, T4; Class I, Zone 0, AEx/Ex ia IIC T4 Ga; Type 4X, IP 65

Model K-20 or AVID EAZICAL 4 – 20 mA Valve Position Controller, Intrinsically Safe, housed in polymeric or stainless still enclosure; Rated 30 V dc, 100 mA 0.75 W max., Temperature Code T4, Ambient working temperature range –40 to +85°C. Must be installed per control drawing WD-12316.

Class I, Div. 1, Groups A, B, C & D, T4; Class II, Div. 1, Groups E, F & G; Class III; Class I, Zone 0, AEx/Ex ia IIC T4 Ga; Class II, Zone 21, AEx/Ex tb IIIC T87 Db; Type 4X, IP 65

DQD 507 Rev. 2016-02-18



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Model K-20 or AVID EAZICAL 4 – 20 mA Valve Position Controller, Intrinsically Safe, housed in aluminum enclosure; Rated 30 V dc, 100 mA, 0.75 W max., Temperature Code T4, Ambient working temperature range –40 to +85°C. Must be installed per control drawing WD-12316

	Entity Parameters					
4-20 In (Term. 7 & 8)	4-20 Out (Term. 9 & 10)	Switch (Term. 1–3 / 4–6)	Inductive Sensor (Term. 1–4)			
Vmax / Ui = 30V	Vmax / Ui = 30V	Vmax / Ui = 30V	Vmax / Ui = 16V			
Imax /Ii= 100mA	Imax /Ii= 100mA	Imax /Ii= 25mA	Imax /Ii= 25mA			
Pmax / Pi= 0.75W	Pmax / Pi= 0.75W	Pmax / Pi= 2W	Pmax / Pi= 0.034W			
Ci = 0nF	Ci = 1nF	Ci = 0 nF	Ci = 40  nF			
$Li = 0\mu H$	$Li = 0\mu H$	$Li = 0 \mu H$	$Li = 50 \mu H$			

May be equipped with either two 3-wire switches or two 2-wire inductive sensors.

#### Notes:

- 1. For Canadian Installations, metallic equipment case must be bonded to ground according to Section 18-182 of the CEC, Part 1.
- 2. For US Installations, metallic equipment case must be bonded to ground according to Article 501.16 of the NEC.
- 3. Measures shall be taken to avoid ignition due to impact for models utilizing aluminum enclosures.
- 4. Measures must be taken to avoid ignition due to electrostatic charges for models utilizing polymeric enclosures.
- 5. The certified cable gland suitably rated for working ambient temperature range maintaining IP65 / Type 4X rating shall be used.
- 6. Field wiring using multiconductor cable shall either have each conductor enclosed in grounded metal shield or each conductor have minimum 0.25mm (0.01") insulation thickness.
- 7. The above model is permanently connected, may be installed in Pollution Degree 4 environment, Installation Category I

**CLASS - C225803** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

**CLASS - C225883** - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive-Systems-For Hazardous Locations-Certified to U.S. Standards

# Class I, Div. 2, Groups A, B, C & D; T4; Type 4X, IP 65

Model K-20 or AVID EAZICAL 4 – 20 mA Valve Position Controller, housed in polymeric or stainless still enclosure; Rated 30 V dc, 100 mA 0.75 W max., Temperature Code T4, Ambient working temperature range –40 to +85°C. Must be installed per control drawing WD-12316.

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Class I, Div. 2, Groups A, B, C & D, T4; Class II, Div. 2, Groups F & G; Class III; Type 4X, IP 65

Model K-20 or AVID EAZICAL 4 – 20 mA Valve Position Controller, housed in aluminum enclosure; Rated 30 V dc, 100 mA, 0.75 W max., Temperature Code T4, Ambient working temperature range –40 to +85°C. Must be installed per control drawing WD-12316.

	Entity Parameters				
4-20 In (Term. 7 & 8)	4-20 Out (Term. 9 & 10)	Switch (Term. 1–3 / 4–6)	Inductive Sensor (Term. 1–4)		
Vmax / Ui = 30V	Vmax / Ui = 30V	Vmax / Ui = 30V	Vmax / Ui = 16V		
Imax /Ii= 100mA	Imax /Ii= 100mA	Imax /Ii= 25mA	Imax /Ii= 25mA		
Pmax / Pi= 0.75W	Pmax / Pi= 0.75W	Pmax / Pi= 2W	Pmax / Pi= 0.034W		
Ci = 0nF	Ci = 1nF	Ci = 0 nF	Ci = 40  nF		
$Li = 0\mu H$	$Li = 0\mu H$	$Li = 0 \mu H$	$Li = 50 \mu H$		

May be equipped with either two 3-wire switches or two 2-wire inductive sensors.

#### Notes:

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- 3. The certified cable gland suitably rated for working ambient temperature range maintaining IP65 / Type 4X rating shall be used.
- 4. Field wiring using multiconductor cable shall either have each conductor enclosed in grounded metal shield or each conductor have minimum 0.25mm (0.01") insulation thickness.
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### **APPLICABLE REQUIREMENTS**

CAN / CSA C22.2 No 61010-1: 2012	-	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
ANSI / UL 61010-1 3 <sup>rd</sup> Ed.	-	Electrical Equipment for Measurement, Control, and Laboratory Use; Part 1: General Requirements
C22.2 NO. 213 / ISA-12.12.01: 2016	-	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
UL 913: 2013	-	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
CAN/CSA C22.2 No. 94.2: 2007	-	Enclosures for electrical equipment, environmental considerations
UL 50E 2 <sup>nd</sup> Ed.: 2015	-	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA-C22.2 No. 60529: 2016	-	Degrees of protection provided by enclosures (IP Code)
CAN/CSA-C22.2 No. 60079-0: 2015	-	Explosive atmospheres – Part 0: Equipment – General requirements
UL 60079-0 6 <sup>th</sup> Ed.: 2013	-	UL Standard for Safety Explosive atmospheres – Part 0: Equipment – General requirements – Sixth Edition
CAN/CSA-C22.2 No. 60079-11: 2014	-	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"
ANSI/ISA-60079-11 (12.02.01): 2014	-	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i" (Edition 6.2)
CAN/CSA-C22.2 No. 60079-31: 2015	-	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
ANSI/ISA-60079-31 (12.10.03): 2015	-	Explosive Atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure "t" (Edition 2)



# Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

## **Product Certification History**

Project	Date	Description
70130633	2017-05-12	Certification of Valve Position Controller Model K-20 for the markings: Tamb: -40C to +85C Class I, Div. 1, Groups A, B, C & D, T4; Class I, Zone 0, AEx/Ex ia IIC T4 Ga; Class I, Div. 2, Groups A, B, C & D; T4; Type 4X, IP 65 In plastic and stainless still enclosures; Class I, Div. 1, Groups A, B, C & D, T4; Class II, Div. 1, Groups E, F & G; Class III; Class I, Zone 0, AEx/Ex ia IIC T4 Ga; Class I, Zone 21, AEx/Ex tb IIIC T87 Db; Class I, Div. 2, Groups A, B, C & D, T4; Class II, Div. 2, Groups F & G; Type 4X, IP 65 In aluminum enclosure