



Certificate of Compliance

Certificate: 70173141

Master Contract: 261831

Project: 70173141

Date Issued: 2018-03-13

Issued to: Eliwell Controls s.r.l.
Via dell'Industria 15-Z.I. Paludi
Alpago, Belluno 32016
ITALY

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: *Khaled Feddad*
Khaled Feddad

PRODUCTS

CLASS - C482351 - TEMPERATURE INDICATING AND REGULATING EQUIPMENT-Appliance Type Controls - Temperature Controls
CLASS - C482387 - TEMPERATURE-INDICATING AND REGULATING EQUIP.-Appliance Type-Temperature Controls-Cert to US

Open type incorporated operating controls:

1. Model TM172 followed by OD, OB, PD, PB, followed by M or G or blank, followed by 07 to 42, followed by R or S, maybe followed by any 1 to 3 alphanumeric digits.
2. Model AV followed by D or C, followed by any number from 0 to 12, followed by 0 to 6, followed by 0, S, 00, SS, followed by 00, 01, 02, 05, 06, followed by any one alphanumeric digit, followed by 5, followed by any two alphanumeric digits.

Ratings:

Inputs

Input Type	ID connector	Terminal	Rating
Power Supply (Base Board)	CN10 1-2	Supply (L-N)	24 Vac, 50/60 Hz, or 20-38 Vdc, SELV Class 2 source (100 VA).



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Digital Inputs (Base board)	CN3 Pulse / Frequency counter	COM_DI	24 Vac or dc , SELV (Class 2), limited energy circuit less than 15 W
		DI1	
		DI2	
Analog Inputs (Base board)	CN5	AI1	+5Vdc and +24Vdc, SELV (Class 2), limited energy circuit less than 15W
		AI2	
		GND	
Analog Inputs (Expansion board)	CN13.AI3	AI3	+5Vdc and +24Vdc, 40mA and 100mA max. current. 0...20mA or 0...10V SELV (Class 2), limited energy circuit less than 15W
	CN13.AI4	AI4	
	CN13.AI5	AI5	
	CN13.AI6	AI6	
	CN13.AI7	AI7	
	CN13.AI8	AI8	
	CN13.GND	GND	
CN5.5Vdc	5Vdc		
CN5.24Vdc	24Vdc		

COMMUNICATION:

Type/Function	ID connector	Terminal	Rating
CAN Expansion bus (Base board)	CN18	CAN	SELV (Class 2) circuit, limited energy circuit less than 15W.
Serial Line port (Base board)	CN19	RS485-1	SELV (Class 2) circuit, limited energy circuit less than 15W.
Serial Line port (Base board)	CN1	RS485-2	SELV (Class 2) circuit, limited energy circuit less than 15W.
Ethernet (Base board)	CN20	ETHERNET	SELV (Class 2) circuit, limited energy circuit less than 15W.

OUTPUTS(+):

Type of Load	Terminals designation	Connector ID	ID Relay	Electrical Ratings	Declaration
Analogue Outputs (Expansion board)	CN11	CN11 (GND)	--	SELV (Class 2) circuit, limited energy circuit less than 15W.	--
		CN11 (AO1)	--		--
		CN11 (AO2)	--		--
Digital Outputs (Base board)	CN9	CN9 (C12) – CN9 (D02)	K2	Normally Open, Resistive, 3A, 250Vac 100k cycles Motor load, 2FLA/12LRA, 250Vac, 100K cycles.	Type 1.B All models (TM172PDG18S - AVD62SS060500 only for relay outputs)
	CN9	CN9 (C12) – CN9 (D01)	K3		



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	CN6	CN6 (C3) - CN6 (D03-) - CN6 (D03)	K1	Changeover, Resistive, 3A, 250Vac, 100k cycles; 1/6 HP, 250Vac, 6K cycles NO contact only.	
Digital Outputs (Expansion board)	CN15	CN15 (D06) - CN15 (C6)	K2	Normally open, Resistive 3 A 250 Vac, 100K cycles ; 2 FLA/12 LRA, 250 Vac, 100K cycles	Type 1.Y Model TM172PDG18S - AVD62SS060500 only
	CN15	CN15 (D05) - CN15 (C5)	K3		
	CN15	CN15 (D04) - CN15 (C4)	K1		
	CN15	CN15 (D05) - CN15 (C5)	K4	0.2 A 240 Vac	
	CN15	CN15 (D04) - CN15 (C4)	K5	0.2 A 240 Vac	
<p>Maximum ampacity for terminal No. CN6 (C3), CN15 (C4), CN15 (C5), CN15 (C6): 3 A Maximum ampacity for terminal No. CN9 (C12): 6 A</p>					

(+) Glossary:

Operating - Not intended to provide any safety or protective functionality. A control which starts or regulates the equipment during normal operation.

Type 1 Action - Calibration Verification Testing or Functionality Verification testing not conducted.

A Type “.B” control has been investigated for “micro disconnection” applications. Disconnection of any pole (ungrounded conductor is not specified) for functional security purposes. Clearance distance across the open contacts for this type of disconnect is NOT specified. However, creepage/clearance distances apply to parts separated by the action and electric strength testing is required across the disconnection.

A Type “.Y” control has been investigated for “electronic disconnection” applications.

Switching contacts: 250Vmax.

Operating temperature: -20°C to 60°C all models except TM172PDG18S - AVD62SS060500 and -20 °C to 55 °C models TM172PDG18S - AVD62SS060500

Software Class A

Indoor use



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APPLICABLE REQUIREMENTS

CAN/CSA-E60730-1:13, Fourth Edition, dated March, 2013

CAN/CSA-E60730-2-9:15, third Edition, dated September, 2015

UL 60730-1: Edition 5.0 - Issue Date 2016/08/03

UL 60730-2-9, Third Edition, dated October 13, 2010 including revisions through August 16, 2013



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
70173141	2018-03-13	Initial certification for Canada and US of incorporated operating electronic control Models TM172 followed by OD, OB, PD, PB, followed by M or G or blank, followed by 07 to 42, followed by R or S, maybe followed by any 1 to 3 alphanumeric digits and Models AV followed by D or C, followed by any number from 0 to 12, followed by 0 to 6, followed by 0, S, 00, SS, followed by 00, 01, 02, 05, 06, followed by any one alphanumeric digit, followed by 5, followed by any two alphanumeric digits