# File E200031 Project 08NK08916

Issued: 2008-11-11

## UNLISTED COMPONENT REPORT

# PROGRAMMABLE CONTROLLERS FOR USE IN HAZARDOUS LOCATIONS

\*Automation Direct Com Inc. Cumming, GA

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#### DESCRIPTION

PRODUCT COVERED: Unlisted Components - Wire Connectors and Adaptors.

ZL Series, Communication Adaptor, ZL followed by -CMA followed by 15

ZL Series, Communications Adaptor with Surge Protection, ZL followed by -CMA followed by 15L

ZL Series, Terminal Block to Pig Tail Interface Cable, ZL followed by -D0, -D2, C0, P3 followed by -CBL followed by 19, 20, 24, followed by -P, -1P, -2P

ZL Series, Remote Terminal Block Connector to Pig Tails, ZL followed by - CBL24 followed by -1P, -2P

ZL Series, Terminal Block to Remote Led Sensor Interface Cable, ZL followed by -D0 or -P3 followed by -CBL followed by 20 or 24, followed by L, -1L, -2L

ZL Series, Terminal Block to Remote Terminal Block Interface Cable, ZL followed by -D0, -D2, -D3, -D4, -P3, -C0 followed by -CBL followed by 8, 10, 11, 13, 18, 19, 20, 24 with or without, -1, -2

ZL Series, Shielded Interface Cable, ZL followed by -CBL40 followed by -S, 1S, 2S  $\,$ 

ZL Series, Interface Cable, ZL followed by -D24 followed by -CBL40 followed by with or without, -1, -2, X, -1X, -2X

ZL Series, Pigtail to Interface Cable, ZL followed by -D24 followed by CBL followed by 40 followed by -1P, -2P, -1XP, -2XP

ZL Series, Pigtail to Remote Terminal Block Interface Cable, ZL followed by CBL followed by 24 followed by -1P, -2P

ZL Series, Servo Zip Link Cable, ZL followed by -SVC followed by CBL50 with or without, -1, -2

ZL Series, Communications Cable, ZL followed by -DB9, -DB15, -DB25 or RJ12 followed by -CBL, -CBL-2 OR -CBL-2P

SVC Series, Communications Cable, SVC followed by -232RJ12, -485HD15, -MDCOM, PCCFG, followed by -CBL or -CBL-2

GS Series, Communications Cable, GS followed by -RJ12 OR -485HD15 followed by -CBL-2

USB Series, USB Cables, USB followed by CBL or AM-AF followed by AX-1.6, AB3, AB6, AB10 AB15 or -20

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#### DESCRIPTION

PRODUCT COVERED: Unlisted Components - Wire Connectors and Adaptors.

ZL Series, Communication Adaptor, ZL followed by -CMA followed by 15

ZL Series, Communications Adaptor with Surge Protection, ZL followed by -CMA followed by 15L

ZL Series, Terminal Block to Pig Tail Interface Cable, ZL followed by -D0, -D2, C0, P3 followed by -CBL followed by 19, 20, 24, followed by -P, -1P, -2P

ZL Series, Remote Terminal Block Connector to Pig Tails, ZL followed by - CBL24 followed by -1P, -2P

ZL Series, Terminal Block to Remote Led Sensor Interface Cable, ZL followed by -D0 or -P3 followed by -CBL followed by 20 or 24, followed by L, -1L, -2L

ZL Series, Terminal Block to Remote Terminal Block Interface Cable, ZL followed by -D0, -D2, -D3, -D4, -P3, -C0 followed by -CBL followed by 8, 10, 11, 13, 18, 19, 20, 24 with or without, -1, -2

ZL Series, Shielded Interface Cable, ZL followed by -CBL40 followed by -S, 1S, 2S  $\,$ 

ZL Series, Interface Cable, ZL followed by -D24 followed by -CBL40 followed by with or without, -1, -2, X, -1X, -2X

ZL Series, Pigtail to Interface Cable, ZL followed by -D24 followed by CBL followed by 40 followed by -1P, -2P, -1XP, -2XP

ZL Series, Pigtail to Remote Terminal Block Interface Cable, ZL followed by CBL followed by 24 followed by -1P, -2P

ZL Series, Servo Zip Link Cable, ZL followed by -SVC followed by CBL50 with or without, -1, -2

ZL Series, Communications Cable, ZL followed by -DB9, -DB15, -DB25 or RJ12 followed by -CBL, -CBL-2 OR -CBL-2P

SVC Series, Communications Cable, SVC followed by -232RJ12, -485HD15, -MDCOM, PCCFG, followed by -CBL or -CBL-2

GS Series, Communications Cable, GS followed by -RJ12 OR -485HD15 followed by -CBL-2

USB Series, USB Cables, USB followed by CBL or AM-AF followed by AX-1.6, AB3, AB6, AB10 AB15 or -20

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## General:

These devices are accessories for open-type programmable controllers intended to be used in industrial control applications. The system includes power supply racks, input modules, output modules, analog modules, and low voltage modules.

These devices have been evaluated for use in a surrounding air temperature of  $60^{\circ}\text{C}$ .

## RATINGS:

Model	Module Type	Source (V, A)	I/O Output
		(User supplied)	Wire Spec.
ZL-CBL24-1P	Interconnect	250V	24 AWG
	Cable	2A	250V
		·	80°C
ZL-CBL24-2P	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL8	Interconnect	250V	24 AWG
	Cable	2A	250V
		~	- 80°C
ZL-D0-CBL8-1	Interconnect	250V	24 AWG
	Cable	2A	250V
***************************************			80°C
ZL-D0-CBL8-2	Interconnect	250V	24 AWG
*	Cable	2A	250V
			80°C
ZL-D0-CBL10	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-CMA15	COMM PORT ADAPTER	Class 2 power	30VDC 1A/Pt.
	15 PIN	supply	
ZL-CMA15L	COMM PORT ADAPT 15	Class 2 power	30VDC 1A/Pt.
	PIN LEDS	supply	

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Model	Module Type	Source (V, A)	I/O Output
ET DO CDITO		(User supplied)	Wire Spec.
ZL-D0-CBL10-1	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL10-2	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL13	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-DO-CBL13-1	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL13-2	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL24	Interconnect	250V	24 AWG
	Cable	2A	250V
	Cabic	24	80°C
ZL-D0-CBL24-1	Interconnect	250V	
AD DO CBBZ4 1	Cable	250 V 2A	24 AWG
	Cable	2A	250V
ZL-D0-CBL24-2	Today	0.5077	80°C
ZL-D0-CBL24-2	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL24-L	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL D0 CBL24-1L	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL24-2L	Interconnect	250V	24 AWG
	Cable	2A	250V
	-		80°C
ZL-D0-CBL24-1P	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D0-CBL24-2P	Interconnect	250V	24 AWG
	Cable	2A	300V
		211	80°C
ZL-D2-CBL19	Interconnect	250V	24 AWG
	Cable	230 V 2A	
	Cante	Z.H	250V
ZL-D2-CBL19-1	Tatoxassast	0 F 0 T 7	80°C
71 12 CDUI7-1	Interconnect	250V	24 AWG
	Cable	2A	250V
ZI DO ODITO			80°C
ZL-D2-CBL19-2	Interconnect	250V	24 AWG
	Cable	2A	250V
	1		80°C

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Model	Module Type	Source (V, A) (User supplied)	I/O Output Wire Spec.
ZL-D2-CBL19-1P	Interconnect		24 AWG
711-D2-CBD13-15		250V	
	Cable	2A	250V
			80°C
ZL-D2-CBL19-2P	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D2-CBL10	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D2-CBL10-1	Interconnect	250V	24 AWG
	Cable	2A	250V
		,	80°C
ZL-D2-CBL10-2	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-D4-CBL20	Interconnect	250V	24 AWG
	Cable	2A	250V
	00010	27.1	80°C
ZL-D4-CBL20-1	Interconnect	250V	24 AWG
22 21 CD220 1	Cable	230 V 2A	250V
	Cabic	2A	80°C
ZL-D4-CBL20-2	Interconnect	250V	24 AWG
2D D4-CDD20-2	Cable		
	Cable	2A	250V
TI DO ODIOO			80°C
ZL-P3-CBL20	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-P3-CBL20-1	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-P3-CBL20-2	Interconnect	250V	24 AWG
	Cable	2A	250V
ž.			80°C
ZL-P3-CBL20L	Interconnect	250V	24 AWG
	Cable	2A	250V
			80°C
ZL-P3-CBL20-1L	Interconnect	250V	24 AWG
	Cable	2A	250V
	-		80°C
ZL-P3-CBL20-2L	Interconnect	250V	24 AWG
	Cable	2A	250V
	1	- <del></del>	80°C
ZL-P3-CBL20P	Interconnect	250V	24 AWG
211-23-СБ120Р	Cable	230V 2A	25 AWG
		W.T.	80°C
ZL-P3-CBL20-1P	Interconnect	25077	
	Cable	250V	24 AWG
	capte	2A	250V
A CONTRACTOR OF THE CONTRACTOR	1		80°C

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Model	Module Type	Source (V, A) (User supplied)	I/O Output Wire Spec.
ZL-P3-CBL20-2P	Interconnect Cable	250V 2A	24 AWG 250V 80°C
ZL-CBL40-S	Interconnect Cable	Class 2 power supply	24 AWG 30 VDC 80°C
ZL-CBL40-1S	Interconnect Cable	Class 2 power supply	24 AWG 30 VDC 80°C
ZL-CBL40-2S	Interconnect Cable	Class 2 power supply	24 AWG 30 VDC 80°C
ZL-SVC-CBL50	Interconnect Cable	Class 2 power supply	28 AWG 30 VDC 80°C
ZL-SVC-CBL50-1	Interconnect Cable	Class 2 power supply	28 AWG 30 VDC 80°C
ZL-SVC-CBL50-2	Interconnect Cable	Class 2 power supply	28 AWG 30 VDC 80°C
ZL-D24-CBL40-X	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-1X	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-2X	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-1	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-2	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-1XP	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-2XP	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C
ZL-D24-CBL40-1P	Interconnect Cable	Class 2 power supply	24 AWG, 30V DC/AC 80°C

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Model	Module Type	Source (V, A) (User supplied)	I/O Output Wire Spec.
ZL-D24-CBL40-2P	Interconnect	Class 2 power	24 AWG,
	Cable	supply	30V DC/AC
			80°C
ZL-C0-CBL11	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL11-1	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL11-2	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL20	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL20-1	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL20-2	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-C0-CBL24	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-D3-CBL18	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-D3-CBL18-1	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-D3-CBL18-2	Interconnect	250V	24 AWG
	Cable	2A	240 VAC
			80°C
ZL-DB9-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	
ZL-DB15-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	
ZL-DB25-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	
ZL-RJ12-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	·
ZL-RJ12-CBL	COMM CABLE	Class 2 power	LV/LC
		supply	**************************************
ZL-RJ12-CBL-2P	COMM CABLE	Class 2 power	LV/LC
00.5-2-0		supply	
GS-RJ12-CBL-2	COMM CABLE	Class 2 power	LV/LC
00 100		supply	
GS-485HD15-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	
SVC-232RJ12-CBL-2	COMM CABLE	Class 2 power	LV/LC

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supply

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Model	Module Type	Source (V, A)	I/O Output
		(User supplied)	Wire Spec.
SVC-485HD15-CBL-2	COMM CABLE	Class 2 power	LV/LC
		supply	
SVC-MDCOM-CBL	COMM CABLE	Class 2 power	LV/LC
		supply	
SVC-PCCFG-CBL	COMM CABLE	Class 2 power	LV/LC
		supply	
USB-CBL-AB3	USB CABLE	Class 2 power	LV/LC
		supply	
USB-CBL-AB6	USB CABLE	Class 2 power	LV/LC
		supply	
USB-CBL-AB10	USB CABLE	Class 2 power	LV/LC
		supply	
USB-CBL-AB15	USB CABLE	Class 2 power	LV/LC
		supply	
USB-CBL-AX-1.6	USB CABLE	Class 2 power	LV/LC
		supply	
USB-AM / AF-20	USB CABLE	Class 2 power	LV/LC
		supply	

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ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

CNL indicates investigation to Canadian Standards C22.2 No. 142-M1989

USL indicates investigation to United States UL Standards 508 Seventeenth Edition

### CONDITIONS OF ACCEPTABILITY:

- 1. All models must be evaluated for a positive means of securement. Connector securement testing or nonincendive analysis must be conducted in the end use application for Class I, Division 2, Groups A, B, C and D:
- 2. Consideration should be given to surface temperature of the connectors, components and wires with respect to the temperature classification of the end use equipment.

## CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description. Unless described otherwise in this Report, the following applies to the construction of all models.

Spacings - Spacings evaluated in accordance with UL 508, Seventeenth Edition, Table 36.1, Column B for 250V and 75V models and D for LVLE models.

Corrosion Protection - All parts are of corrosion resistant material or are plated or painted as corrosion protection.

Expansion/Interface Cables - R/C (ZPFW2), wiring harness, TOP CHARGER ENTERPRISE CO., LTD. Cat. No. (E189544)

Expansion/Interface Cables - R/C (ZPFW2), wiring harness, Gold Fa Enterprise Co., LTD. Cat. No. (E320291)

Manufacturer shall supply or indicate in installation instructions R/C (ECBT2) mating plug for all applicable models. All mating plugs shall have suitable ratings for device.

Marking - Pressure-sensitive label indicating Unlistee's name, model number and electrical ratings provided on each module. Unless otherwise specified all markings in the Report are printed on R/C (PGJI2), suitable for the surface applied to. Additional markings are provided in each section of the applicant's file