CSA GROUP™

Certificate of Compliance

Certificate: 2029512   **Master Contract:** 150863

Project: 80139948   **Date Issued:** 2022-11-17

Issued To: **Detector Electronics Corporation (Det-Tronics)**
6901 W 110th St
Minneapolis, Minnesota, 55438-2392
United States

    Attention: Ed Brion

The products listed below are eligible to bear the CSA Mark shown

Issued by: *Konstantin Rybalko*
Konstantin Rybalko

(CSA ® mark)

PRODUCTS

CLASS 4828 01 - SIGNAL APPLIANCES - Combustible Gas Detection Instruments - For Hazardous Locations

Class I, Div. 1, Groups B, C & D (T5);
Class I, Div. 2, Groups B, C & D (T4);
Class II/III, Div. 1/2, Groups E, F & G (T5);
Type 4X, IP66

FlexVu (or AutroVu) Explosion Proof Universal Display Unit, Model UD10 (or AV10) abcde, 18-30Vdc, 2 - 7W maximum; operating temperature -55°C to +75°C; contacts rated 30Vdc/ 5A (resistive). The Display/Control unit designed for gas detectors such as PIRECL, OPECL**,** or PIR9400 for use with any CSA certified 4-20mA stand-alone gas detection instruments, monitors 0-100% LFL gas in air atmospheres, for indoor and outdoor use. The control unit communicates to the detector head via a 4-20 mA signal with or without Hart. The control unit provides either a 4-20 mA signal with Hart, Foundation Field Bus, or Modbus.

Model Code:
UD10 (or AV10) abcde2, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT

d = Output: 25, 27
e = Approval: A, C, T or W

FlexVu (or AutroVu) Explosion Proof Universal Display Unit, Model UD10 (or AV10) abcdef with CGS Smart Interface Circuit, 18-30Vdc, 11 W maximum; operating temperature -40°C to +75°C; contacts rated 30Vdc/ 5A (resistive). The Display/Control/Detector unit designed for Model CGS gas sensor, monitors 0-100% LFL gas in air atmospheres, for indoor and outdoor use. The control unit provides either a 4-20 mA signal with Hart, Foundation Field Bus, or Modbus.

Model Code:
UD10 (or AV10) abcde2f, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT
d = Output: 25, 27
e = Approval: A, C, T or W
f = Optional Conditioning board: C

FlexVu Explosion Proof Universal Display Unit, Model UD10abcdef, DCU/LON Version with or without CGS Smart Interface Circuit, 18-30Vdc, 2 - 6W maximum without CGS, 11W maximum with CGS; operating temperature -40°C to +75°C; LON interface for use with EQP Control Systems. The transmitter is designed for gas detectors/sensors such as PIRECL, OPECL, PIR9400 or CGS, or for use with any CSA certified 4-20mA stand-alone gas detection instruments, monitors 0-100% LFL-gas in air atmospheres, for indoor and outdoor use. The UD10 transmitter communicates to the detector head via a 4-20 mA signal with or without Hart.

Model Code:
UD10abcde2f, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT
d = Output: 28 (LON output)
e = Approval: A, C, T or W
f = Optional Conditioning board: C or blank

Notes:

1. Field wiring must be in accordance with CEC Part 1, Section 18

2. The enclosure must be bonded to ground according to CEC Part 1, Section 18

3. For enclosures with metric conduit entries certified metric to NPT adaptors shall be used.

4. Measures must be taken to avoid ignition due to mechanical impact for models with aluminum enclosure.

CLASS 4828 02 - SIGNAL APPLIANCES - Toxic Gas Detection Instruments - For Hazardous Locations

Class I, Div. 1, Groups B, C & D (T5);
Class I, Div. 2, Groups B, C & D (T4);
Class II/III, Div. 1/2, Groups E, F & G (T5);
Type 4X, IP66

FlexVu (or AutroVu) Explosion Proof Universal Display Unit, Model UD10 (or AV10) abcde, 18-30Vdc, 2 - 7W maximum; operating temperature -55°C to +75°C; contacts rated 30Vdc/ 5A (resistive). The Display/Control unit designed for **t**oxic gas detectors such as GT3000, NTMOS, PIRECL CO_2, or C7064E, or for use with any CSA certified 4-20mA stand-alone gas detection instruments. Displays engineering units of PPM gas atmospheres or percent by volume. The control unit communicates to the detector head via a 4-20 mA signal with or without Hart. The Display/Control unit provides either a 4-20 mA signal with Hart, Foundation Field Bus, or Modbus.

Model Code:
UD10 (or AV10) abcde, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT
d = Output: 25, 27
e = Approval: A, C**,** T or W

FlexVu (or AutroVu) Explosion Proof Universal Display Unit, Model UD10 (or AV10) abcdef, 18-30Vdc, 2 - 7W maximum; operating temperature -55°C to +75°C; contacts rated 30Vdc/ 5A (resistive). The Display/Control unit designed for NTMOS **t**oxic gas detectors with optional NTMOS conditioning board. Displays engineering units of PPM gas atmospheres or percent by volume. The control unit communicates to the detector head via a 4-20 mA signal with or without Hart. The Display/Control unit provides either a 4-20 mA signal with Hart, Foundation Field Bus, or Modbus.

Model Code:
UD10 (or AV10) abcdef, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT
d = Output: 25, 27
e = Approval: A, C**,** T or W
f = Optional Conditioning board: N or blank

FlexVu Explosion Proof Universal Display Unit, Model UD10abcdef, DCU/LON Version, 18-30Vdc, 2 - 7 W maximum; operating temperature -40°C to +75°C; LON interface for use with EQP Control Systems. The Display/Control unit designed for toxic gas detectors such as GT3000, NTMOS, or C7064E, or for use with any CSA certified 4-20mA stand-alone toxic gas detection instruments. Displays engineering units of PPM gas atmospheres or percent by volume. The UD10 transmitter communicates to the detector head via a 4-20 mA signal with or without Hart.

Model Code:
UD10abcdef, Universal Display Unit
a = Enclosure Type: A or S
b = Number of ports: 2, 3, 4, 5
c = Thread Type: F=M20, M=M25, E=½"NPT, N=¾"NPT
d = Output: 28 (LON output)
e = Approval: A, C, or W
f = Optional Conditioning board: N or blank

Notes:

1. Field wiring must be in accordance with CEC Part 1, Section 18

2. The enclosure must be bonded to ground according to CEC Part 1, Section 18

3. For enclosures with metric conduit entries certified metric to NPT adaptors shall be used.

4. Measures must be taken to avoid ignition due to mechanical impact for models with aluminum enclosure.

APPLICABLE REQUIREMENTS

C22.2 No. 30-M1986	-	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA C22.2 No. 94.2: 2020	-	Enclosures for electrical equipment, environmental considerations
C22.2 No. 142-M1987	-	Process Control Equipment
C22.2 No. 213-17	-	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
CSA Std. C22.2 No.152- 1984	-	Combustible Gas Detection Instruments

Notes:

Products certified under Class C482801, C482802 have been certified under CSA's
ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

Supplement to Certificate of Compliance

Certificate: 2029512   **Master Contract:** 150863

*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
80139948	2022-11-17	Update to CSA report 2029512 for FlexVu (or AutroVu) Explosion Proof Universal Display Unit, Model UD10 or AV10 Series for addition of alternate capacitor and Real Time Clock and firmware update.
80020272	2019-10-25	Update to CSA report 2029512 for Model UD10 LON Board changes for the FT5000.
70201504	2018-10-17	Update to report 2029512 for firmware update.
70057746	2016-08-12	Update the report 2029512 to accommodate Firmware changes for Model UD10.
2713034	2014-03-26	Update to report 2029512 to add Autronica AutroVu Model AV10 as a Private Label to the Det-Tronics FlexVu Model UD10.
2511643	2012-10-15	Update to report 2029512 to cover revised hardware and firmware.
2530892	2012-06-04	Update to report 2029512 to cover revised hardware and firmware.
2440930	2011-07-27	Update report 2029512 to cover revised firmware and construction
2411233	2011-04-20	Update to report 2029512 to cover revised firmware for the microcontroller on the CGS interface PCB.
2349754	2010-10-20	Revised Construction
2220666	2009-11-11	Update to report 2029512 to add use of NTMOS sensor and revise firmware.
2198594	2009-08-05	Firmware change
2166315	2009-05-12	Update report 2029512 to cover revised firmware
2095817	2008-11-10	Revised Firmware

2029512   2008-10-20   Original Certification