



# Certificate of Compliance

**Certificate:** 1350469 (LR 78055)

**Master Contract:** 154402

**Project:** 2713532

**Date Issued:** June 6, 2014

**Issued to:** **Minco Products Incorporated**

**7300 Commerce Lane  
Minneapolis, MN 55432  
USA  
Attention: Rob Bohland**

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



*Hossein Saleh*

**Issued by:** Hossein Saleh, P. Eng.

## **PRODUCTS**

**CLASS 2258 02** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

**Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G:**

**Exd IIC: Class I, Zone 1:**

- Model AS7 Series Probe/Transmitter Assemblies; Electrical Rating 30 Vdc, 30 mA max, 1.35 W max; Min. Ambient Temp. -50 Deg. C.; Temp. Code T6 @ 40 Deg. C Ambient; Temp. Code T2 @ 260 Deg. C Ambient; Max. Ambient: 160 Deg. C for Class II; MWP 200 psi:

- RTD Assembly: AS7 kabcrdefuvwx
- Thermocouple Assembly: AS7 kabghd P fuvwx
- RTD / Transmitter Assembly: AS7 kabcrdefuvwxijt
- Thermocouple / Transmitter Assembly: AS7 kabghd P fuvwxij

Alternate Assembly Marking:

- Simplex RTD Assembly: AS7 kabcrdef
- Duplex RTD Assembly: AS7 kabcrerdef
- Thermocouple Assembly: AS7 kabghd P f



**Certificate:** 1350469 (LR 78055)

**Master Contract:** 154402

**Project:** 2713532

**Date Issued:** June 6, 2014

---

- RTD / Transmitter Assembly: AS7 kabcrdefij, or AS7 kabcrdefij
- Thermocouple / Transmitter Assembly: AS7 kabghd P fij

Notes:

1. Lower case letters represent place holders which are to be replaced by alphanumeric characters. Placeholders may be changed irrespective of certification status, with exception of place holders [u] and [b] as follows. Refer to report for complete model naming nomenclature.

2. Place holder [u] denotes the Connection Head enclosure by A, S or I, as follows:

- a. A = Model: CH104, Rated: Type 3, 4, IP65
- b. S = Model: CH106, Rated: Type 3, 4, 4X, IP66
- c. I = Model: TI196, Rated: Type 4X

3. Place holder [b] denotes the Fitting type by a single digit numerical value 0 to 9, as follows:

- a. 0 = Welded, 1/2 NPT, 200 psi (13.8 bar)
- b. 2 = Welded, G1/2, 200 psi (13.8 bar)
- c. 4 = Adjustable Spring Loaded, 1/2 NPT, 50 psi (3.4 bar)
- d. 6 = Adjustable Spring Loaded, G1/2, 50 psi (3.4 bar)
- e. 8 = Fixed Spring Loaded, 1/2 NPT, Note: No seal provided, must be used in a Thermowell or Protection Tube.

**APPLICABLE REQUIREMENTS**

1. CSA Std C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations (Reaffirmed 2004)
2. CSA Std C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations (Reaffirmed 2007)
3. CAN/CSA-C22.2 No. 94-M91 - Special Purpose Enclosures (Reaffirmed 2006)
4. CSA Std C22.2 No. 142-M1987 - Process Control Equipment (Reaffirmed 2004)
5. CAN/CSA-E60079-0:07 - Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
6. CAN/CSA-E60079-1:02 - Electrical Apparatus for Explosive Gas Atmospheres – Part 1: Flameproof Enclosures “d”
7. IEC 60529:2001 - Degrees of Protection provided by enclosures (IP Code)