



Certificate of Compliance

Certificate: 1336744

Master Contract: 216092

Project: 70032246

Date Issued: July 20, 2015

Issued to: Kulite Semiconductor Products
One Willowtree Rd
Leonia, NJ 07605
USA

Attention: John Chivers

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:

Goutam Das
Goutam Das

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups A, B, C and D:

Pressure Transducers Type I, Model numbers listed below; intrinsically safe with entity parameters $V_{max} = 33\text{ V}$, $I_{max} = 250\text{ mA}$, $P_{max} = 1\text{ W}$, $C_i = 51.5\text{ nF}$, $L_i = 150\text{ }\mu\text{H}$, connected per installation drawing 230-A-45532; Temperature Code T4 ($T_{amb} = -60\text{C to } +70\text{C}$), Temperature Code T3 ($T_{amb} = -60\text{C to } +125\text{C}$), Temperature Code T2 ($T_{amb} = -60\text{C to } +230\text{C}$).

Pressure Transducers Type II and III, Model numbers listed below; intrinsically safe with entity parameters $V_{max} = 55\text{ V}$, $I_{max} = 250\text{ mA}$, $P_{max} = 1\text{ W}$, $C_i = 16.5\text{ nF}$, $L_i = 150\text{ }\mu\text{H}$, connected per installation drawing 230-A-45533; Temperature Code T4 ($T_{amb} = -60\text{C to } +70\text{C}$), Temperature Code T3 ($T_{amb} = -60\text{C to } +125\text{C}$), Temperature Code T2 ($T_{amb} = -60\text{C to } +230\text{C}$).



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Pressure Transducers Type IV, Model numbers listed below; intrinsically safe with entity parameters $V_{max} = 33\text{ V}$, $I_{max} = 250\text{ mA}$, $P_{max} = 1\text{ W}$, $C_i = 51.5\text{ nF}$, $L_i = 150\text{ }\mu\text{H}$, connected per installation drawing 230-A-82232; Temperature Code T4 ($T_{amb} = -60\text{C to } +70\text{C}$), Temperature Code T3 ($T_{amb} = -60\text{C to } +125\text{C}$), Temperature Code T2 ($T_{amb} = -60\text{C to } +230\text{C}$).

Pressure Transducers Type V, Model numbers listed below; intrinsically safe with entity parameters $V_{max} = 55\text{ V}$, $I_{max} = 250\text{ mA}$, $P_{max} = 1\text{ W}$, $C_i = 16.5\text{ nF}$, $L_i = 150\text{ }\mu\text{H}$, connected per installation drawing 230-A-82234; Temperature Code T4 ($T_{amb} = 70\text{C}$), Temperature Code T3 ($T_{amb} = -60\text{C to } +125\text{C}$), Temperature Code T2 ($T_{amb} = -60\text{C to } +230\text{C}$).

Type I
Silicon Diaphragm Oil-Filled or Leadless Design, Amplified (internal or in-line)
Absolute, Gauge and Differential
IS-APTE-XXX-1000 Series
IS-IPTE-1100 Series
IS-BME-1100 Series
IS-BMDE-1100 Series
IS-ISTE-1000 Series
IS-KF-1040 Series
IS-KF-1041 Series
IS-EPS-XXX-1000 Series
IS-TC-1500 Series
IS-APTE-DC-XXX Series
IS-ETM-XXX-375 & 500 Series
PT213A Series
IS-EFT-1000 Series
IS-NE-XXX-375 Series
IS-KE-XXX-375 Series
IS-ETQ-XXX Series
PT2000A Series
IS-ETL-XXX-190 & 312 & 375 Series
IS-ETLR Series

Type II
Silicon Diaphragm Oil-Filled Design, Unamplified
Absolute, Gauge and Differential
IS-APT-XXX-1000 Series
IS-IPT-1100 Series
IS-IPT-750 Series
IS-BM-1100 Series
IS-BM-750 Series
IS-BMD-1100 Series
IS-IST-1000 Series
PT213A Series (unamplified)
IS-HKM-375 Series
IS-HEM-375 Series
IS-HKM-3X Series



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Type II
IS-HKM-XXX-375 Series
IS-HEM-XXX-375 & 500 Series
IS-IPT-4-750 Series
PT2000A Series (unamplified)

Type III
Leadless Silicon Diaphragm & Metal Diaphragm Designs, Unamplified
Absolute, Gauge and Differential
IS-XTM-190 Series
IS-XTL-190 Series
IS-XTHL-XXX Series
IS-XCHL-XXX Series
IS-ECS-13L Series

Type IV
IS-EPTS-312 Series
IS-ETL/T-312 Series
IS-ETL/T-375 Series
IS-ETLR/T-634 Series

Type V
IS-HKL/T-1-235 Series
IS-HKL/T-312 Series
IS-HKL/T-375 Series

CLASS 2258 03 – PROCESS CONTROL EQUIPMENT – Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations
CLASS 2258 83 – PROCESS CONTROL EQUIPMENT – Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations

Class I, Division 1, Groups A, B, C and D:

Pressure Transducers Type I, Model numbers listed below; intrinsically safe when connected with 28V, 300ohms shunt diode barriers as per installation drawings 230-A-45532; Temperature Code T4 (Tamb = -60C to + 70C), Temperature Code T3 (Tamb = -60C to + 125C), Temperature Code T2 (Tamb = -60C to + 230C).

Pressure Transducers Type II and III, Model numbers listed below; intrinsically safe when connected as per installation drawings 230-A-45533; Temperature Code T4 (Tamb = -60C to + 70C), Temperature Code T3 (Tamb = -60C to + 125C), Temperature Code T2 (Tamb = -60C to + 230C).

Pressure Transducers Type IV, Model numbers listed below; intrinsically safe when connected with one 28V, 300ohm shunt diode barrier for the pressure channel and one 3V, 100ohm shunt diode barrier for the temperature channel as per installation drawings 230-A-82232; Temperature Code T4 (Tamb = -60C to +70C), Temperature Code T3 (Tamb = -60C to +125C), Temperature Code T2 (Tamb = -60C to +230C).



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Pressure Transducers Type V, Model numbers listed below; intrinsically safe when connected with one 9V, 90ohm plus two 12V, 1000ohm shunt diode barriers for the pressure channel and one 3V, 100ohm shunt diode barrier for the temperature channel as per installation drawings 230-A-82234; Temperature Code T4 (Tamb = -60C to +70C), Temperature Code T3 (Tamb = -60C to +125C), Temperature Code T2 (Tamb = -60C to +230C).

Type I
Silicon Diaphragm Oil-Filled or Leadless Design, Amplified (internal or in-line)
Absolute, Gauge and Differential
IS-APTE-XXX-1000 Series
IS-IPTE-1100 Series
IS-BME-1100 Series
IS-BMDE-1100 Series
IS-ISTE-1000 Series
IS-KF-1040 Series
IS-KF-1041 Series
IS-EPS-XXX-1000 Series
IS-TC-1500 Series
IS-APTE-DC-XXX Series
IS-ETM-XXX-375 & 500 Series
PT213A Series
IS-EFT-1000 Series
IS-NE-XXX-375 Series
IS-KE-XXX-375 Series
IS-ETQ-XXX Series
PT2000A Series
IS-ETL-XXX-190 & 312 & 375 Series
IS-ETLR Series



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Type II
Silicon Diaphragm Oil-Filled Design, Unamplified
Absolute, Gauge and Differential
IS-APT-XXX-1000 Series
IS-IPT-1100 Series
IS-IPT-750 Series
IS-BM-1100 Series
IS-BM-750 Series
IS-BMD-1100 Series
IS-IST-1000 Series
PT213A Series (unamplified)
IS-HKM-375 Series
IS-HEM-375 Series
IS-HKM-3X Series
IS-HKM-XXX-375 Series
IS-HEM-XXX-375 & 500 Series
IS-IPT-4-750 Series
PT2000A Series (unamplified)

Type III
Leadless Silicon Diaphragm & Metal Diaphragm Designs, Unamplified
Absolute, Gauge and Differential
IS-XTM-190 Series
IS-XTL-190 Series
IS-XTHL-XXX Series
IS-XCHL-XXX Series
IS-ECS-13L Series

Type IV
IS-EPTS-312 Series
IS-ETL/T-312 Series
IS-ETL/T-375 Series
IS-ETLR/T-634 Series

Type V
IS-HKL/T-1-235 Series
IS-HKL/T-312 Series
IS-HKL/T-375 Series



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APPLICABLE REQUIREMENTS

- | | | |
|------------------------------|---|---|
| CAN/CSA-C22.2 No. 0-M91 | - | General Requirements – Canadian Electrical Code, Part II |
| C22.2 No. 142-M1987 | - | Process Control Equipment |
| CAN/CSA-C22.2 No. 157-92 | - | Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations |
| UL 913 (7 th Ed.) | - | Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations |
| UL 916 (4 th Ed.) | - | Energy Management Equipment |



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
70032246	July 20, 2015	Edition 5: The input current (Ii) has been changed for all Type I to Type V Transducers from 200mA to 250mA keeping all other parameters unchanged.
2665060	Feb 5, 2014	Edition 4: The Type IV is similar to the Type I with the addition of a Resistance Temperature Detector. The Type V is similar to the Type II with the addition of a Resistance Temperature Detector.
2336045	Jan 14, 2011	Edition 3: Update of Report 1336744 to cover changes to ambient range , temperature code ratings and addition of coverage to UL913 7th Ed.
1384758	Dec 31, 2002	Edition 2: Revision of installation drawings
1336744	Aug 9, 2002	Edition 1: Issue of prime certificate