

Certificate of Compliance

Certificate: 1570027 Master Contract: 171050

Project: 80038035 **Date Issued:** July 07, 2020

Issued To: R. Stahl Schaltgeraete GmbH

Am Bahnhof 30 Waldenburg,

Baden-Württemberg, 74638

Germany

Attention: Andreas Bagusch

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:

Gordon Neuroth

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

Ex nA [ib Gb] IIC T4 Gc Class I, Zone 2 AEx nA [ib Gb] IIC T4 Gc

For equipment with the type designations:

 9143/10-065-150-10
 9143/10-065-200-10
 9143/10-099-220-10

 9143/10-104-220-10
 9143/10-114-200-10
 9143/10-124-150-10

 9143/10-124-195-10
 9143/10-126-150-10
 9143/10-156-065-10

DQD 507 Rev. 2019-04-30



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[Ex ib Gb] IIC [AEx ib Gb] IIC

For equipment with the type designations:

 9143/10-065-150-20
 9143/10-065-200-20
 9143/10-099-220-20

 9143/10-104-220-20
 9143/10-114-200-20
 9143/10-124-150-20

 9143/10-124-195-20
 9143/10-126-150-20
 9143/10-156-065-20

9143/10-187-050-20

Ex nA [ib Gb] IIB T4 Gc Class I, Zone 2 AEx nA [ib Gb] IIB T4 Gc

For equipment with the type designations:

9143/10-156-150-10 9143/10-156-160-10 9143/10-244-035-10 9143/10-244-060-10

[Ex ib Gb] IIB [AEx ib Gb] IIB

For equipment with the type designations:

9143/10-156-150-20 9143/10-156-160-20 9143/10-187-100-20 9143/10-244-055-20 9143/10-244-060-20

• I.S. Power Supply Type 9143/10-aaa-bbb-c0: a = Three digit numeral for output voltage (tenth of maximum output voltage): b = Three digit numeral for output current (maximum output current in mA): c = numeral 1 or 2 for supply voltage (1 = 20 to 28VAC or 18 to 35VDC; 2 = 85 to 250VAC). Um ≤ 250VAC. Ambient temperature -20°C to +60°C (any mounting position) or -20°C to +70°C (vertical mounting on horizontal DIN rail). Refer to installation drawing 91 436 01 31 2.



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Entity parameters for wiring configurations are as follows:

aaa	bbb	Uo (V)	Io (mA)	Po (mW)	Lo (mH)	Co (µF)	Lo (mH) if $Co = 0$	$ \begin{array}{c} \mathbf{Co} \\ (\mu F) \text{ if} \\ \mathbf{Lo} = \\ 0 \end{array} $	Lo (mH)	Co (μF)	Lo (mH) if $Co = 0$	$ \begin{array}{c} \mathbf{Co} (\mu F) \\ \text{if Lo} = \\ 0 \end{array} $
					IIC	IIC	IIC	IIC	IIB	IIB	IIB	IIB
065	150	6.5	150	975	1	0.78	1.43	25	1	9	6.25	570
065	200	6.5	200	1300	0.5	1.1	0.82	25	1	7.7	3.71	570
099	220	9.9	220	2178	0.1	1.2	0.3	3	1	3.4	1.7	20.2
104	220	10.4	220	2288	0.1	1.4	0.24	2.4	1	3.1	1.5	16.8
114	200	11.4	200	2280	0.1	1.2	0.16	1.64	1	2.9	1.4	11.2
124	150	12.4	150	1860	0.1	1.1	0.17	1.24	1	2.9	2.08	7.9
124	195	12.4	195	2418	0.05	1.24	0.066	1.24	1	2.5	1.01	7.9
126	150	12.6	150	1890	0.1	1.1	0.141	1.15	1	2.8	1.95	7.4
156	065	15.6	65	1014	0.1	0.34	0.445	0.497	1	2.5	11.2	3.03
156	150	15.6	150	2340					0.2	1.9	0.482	3.03
156	160	15.6	160	2496					0.2	1.8	0.351	3.03
187	050	18.7	50	935	0.05	0.27	0.06	0.27	1	0.99	15.5	1.64
187	100	18.7	100	1870					0.5	0.74	0.521	1.64
244	035	24.4	35	854					0.2	0.7	26.3	0.88
244	055	24.4	55	1342					0.2	0.67	1.54	0.88
244	060	24.4	60	1464					0.2	0.67	0.534	0.88

Notes:

1. For use in Zone 2 the power supply has to be mounted inside an enclosure which is in accordance with the standards.



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APPLICABLE REQUIREMENTS

CSA C22.2 No. 0-10 General Requirements – Canadian Electrical Code, Part II

CSA C22.2 No. 142-M1987 Process Control Equipment Industrial Products

CAN/CSA-C22.2 No. 60079-0:11 Explosive atmospheres – Part 0: Equipment – General Requirements

CAN/CSA-C22.2 No. 60079-11:11 Explosive atmospheres – Part 11: Equipment protection by intrinsic safety

"i"

CAN/CSA-C22.2 No. 60079-15:12 Electrical apparatus for explosive gas atmospheres – Part 15: Construction,

test and marking of type of protection "n" electrical apparatus

UL 508 Industrial Control Equipment – Seventeenth Edition

UL 60079-0 Explosive atmospheres – Part 0: Equipment – General requirements - Fifth

Edition

UL 60079-11 Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety

"i" - Fifth Edition

UL 60079-15 Electrical Apparatus for Explosive Gas Atmospheres – Part 15:

Construction, Test and Marking of Type of Protection "n" Electrical

Apparatus - Third Edition



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MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

I.S. Power Supply Type 9143/10 the markings are laser printed directly onto the right and left sides of the housing. Refer to marking drawing 91 430 03 00 2.

The following marking details appear:

- Manufacturer's name: "R. Stahl", or CSA Master Contract Number "159930", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above. (may appear on referenced Installation Dwg).
- Max ambient temperature rating or ambient temperature range: As specified in the PRODUCTS section, above.
- Manufacturing date in MMYY format, or serial number, traceable to year and month of manufacture.
- The CSA Mark with or without "C" and "US" indicators, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above (may be abbreviated).
- Temperature code: As specified in the PRODUCTS section, above.
- Certificate reference 12.1570027X
- Reference to Installation Instructions
- Warnings re. Disconnection of Circuits, removal of modules, replacement fuses etc. (may appear on referenced Installation Dwg.);
- Caution re. Substitution of Components.

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".



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
80038035	2020-07-07	Removal of all equipment except of the I.S. Power Supply Type 9143/10-aaa-bbb-c0, drawing updates and correction of marking
0002510911	2012-06-19	Update to report 1570027 to include Type 9143/10 Series power supply.
0002260677	2010-01-12	Update of report 1570027 to cover addition of Private Label versions of R.Stahl Isolators for Siemens.
0002238352	2009-11-18	Update to include additional variants, Models 9170/a1-**- and 9170/*1-*d-6*.
0001935865	2007-07-23	Update of report 1570027 to cover addition of new isolator, and to cover circuitry & drawing revisions for ISpac barriers.
0001699053	2005-08-16	Update to cover Circuitry revisions for models 9160, 9165, 9167, 9170 and 9175.
0001600134	2004-10-13	Update to cover additional Modules and revised Circuitry.
0001570027	2004-08-23	ISpacs Isolating Barriers for Hazardous Locations