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### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx UL 17.0009 Issue No: 1

Issue No. 1 (2017-05-25)

Certificate history:

Issue No. 0 (2017-04-18)

Date of Issue: 2017-05-25

Applicant: Hardy Process Solutions

Current

9440 Carroll Park, Suite 150 San Diego, CA 92121 **United States of America** 

Equipment: Load Cell Summation Equipment, HI6020JB and HI6020IT

Optional accessory:

Type of Protection: Instrinsic safety "ia"

Marking:

Status:

Ex ia IIC T4 Ga

-10°C to +60°C

Approved for issue on behalf of the IECEx Andrew Moffat

Certification Body:

Position: Associate Project Engineer

Signature:

(for printed version)

Date: 2017-05-25

- 1. This certificate and schedule may only be reproduced in full.
- 2. This certificate is not transferable and remains the property of the issuing body.
- 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

UL LLC 333 Pfingsten Road Northbrook IL 60062-2096 United States of America





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Manufacturer: Hardy Process Solutions

9440 Carroll Park, Suite 150 San Diego, CA 92121 **United States of America** 

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-11: 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

#### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

US/UL/ExTR17.0009/01

Quality Assessment Report:

US/UL/QAR17.0006/00



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

The HI6020IT and HI6020JB are intrinsically safe load cell summation equipment used to combine the inputs from up to four load cells. The apparatus is provided power via three or four intrinsic safety barriers (not included with the equipment) as defined in the model specific control drawings. The equipment is type "ia" protection.

See Annex for Nomenclature and additional information.

SPECIFIC CONDITIONS OF USE: NO



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#### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1: The cover page was updated to correct missing information within the table of intrinsic safety barriers.

Annex:

Annex to IECEx UL 17.0009 Issue 1.pdf

Annex to IECEx UL 17.0009 Issue 1 Applicant: Hardy Process Solutions

#### Series Nomenclature:

### I: Series Designation:

HI6020JB = JB Summing box HI6020IT = IT Summing Box ("Integrated Technician")

### II: Load Cell Summing Card Options

-SS1 = Summing card in Stainless Steel Enclosure

-SS2 = Summing card in Stainless Steel Enclosure, with Trim Pots

#### III: Enclosure Openings

Blank = 5-hole Summing Box Enclosure

6 = 6-hole Summing Box Enclosure

#### IV: Cable Gland Option

Ex = No cable glands provided

Intrinsically safe specifications:

Intrinsic Safety Barriers Approved For Use In This System (IECEx)										
Supplier	Model	U <sub>o</sub> (V)	I <sub>O</sub> (mA)	P <sub>O</sub> (mW)	Group	C <sub>O</sub> (uF)	L <sub>O</sub> (mH)			
	7766Pac	12.0	157.0	471.0	IIC	1.41	1.47			
					IIB	9.00	4.40			
					IIA	36.00	11.00			
MTL	7761Pac	9.0	26.0	225.0	IIC	4.90	56.00			
IVITE					IIB	40.00	208.00			
					IIA	500.00	419.00			
	7710+	10.0	200.0	500.0	IIC	3.00	0.91			
		10.0	200.0		IIB	20.00	2.72			
					IIA	100.00	7.25			
	Z966.H 12	12.0	2.0 164.0	492.0	IIC	1.41	1.32			
		12.0			IIB	9.00	5.28			
Pepperl +					IIA	36.0	10.57			
Fuchs	Z961.H 8.7	8.7	25.0	54.4	IIC	5.9	56.88			
					IIB	50.0	227.55			
					IIA	1000	455.11			
	Z710	Z710 9.56	195.0	466.1	IIC	3.6	0.93			
	2.70				IIB	26.0	3.74			
					IIA	210.0	7.48			
	9002/11-130- 360-001	13.0	321.0	1040.0	IIC	1.0	0.19			
		10.0	021.0		IIB	6.2	1.6			
R Stahl	9002/10-187- 9.33	20.0	50.0	IIC	3.9	90.0				
	020-001			2 3.0	IIB/IIA	29.0	330.0			
	9001/01-086- 150-101	8.6	150.0	322.5	IIC	6.2	1.3			
					IIB/IIA	55.0	7.0			

- For more information, please refer to the Zener barrier manufacturer control drawings.
   IS Barriers used within a single system must be from the same supplier. Do not mix barrier suppliers within the same system.