(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 00ATEX1132 X**

Routine tests

The completed assembly of the load cell shall withstand for one minute, without breakdown, the application of 500 Vac between excitation and output circuits, connected together, and the metal housing.

(16) **Report**

KEMA No. 2007353.

(17) **Special conditions for safe use**

If a Load Cell is not connected to certified intrinsically safe circuits, the free end of the permanently connected cable must be connected outside the hazardous area or, when inside the hazardous area, in an enclosure with a suitable type of explosion protection and in accordance with the requirements of the type of protection applied.

For the parameters of the intrinsically safe circuits, refer to the electrical data mentioned at (15).

(18) **Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by the standards listed at (9)	
Clause	Subject
1.0.5	Marking
1.0.6 b)	Instructions

These Essential Health and Safety Requirements are examined and positively judged. The results are laid down in the report listed at (16).

(19) **Test documentation**

1. Certificate of Conformity KEMA No. Ex-92.C.6227
   KEMA No. Ex-92.C.6585
   KEMA No. Ex-92.C.6586
   KEMA No. Ex-92.C.6587
   KEMA No. Ex-92.C.6588
   KEMA No. Ex-94.D.9274
   KEMA No. Ex-94.C.8398
   KEMA No. Ex-99.E.7228

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 00ATEX1132 X**

Test documentation (continued)

		dated
2.	Description Model SHBxR)	
	Description Model BSP)	
	Description Model CSP-M and Model CP-M)	
	Description Model HPS)	
	Description Model SSB)	06.12.2001
	Description Model HCB)	
	Description Model 9102)	
	Description Model RLC)	
	Description Model 5103/9103)	
3.	Drawing No. E-401009, rev. A (sheet 1)	24.10.2001
	E-401009, rev. A (sheet 3)	25.10.2001
	899409, rev. A (2 sheets)	14.11.1996
	E-404001, rev. A (2 sheets)	26.10.2001
	E-404002, rev. A (4 sheets)	29.10.2001
	E-606361	30.10.2001
	E-606362	30.10.2001
	E-403001, rev. B (sheet 1)	01.11.2001
	E-403001 (sheet 2)	02.11.2001
	899446 (2 sheets)	14.11.1996
	E-405001, rev. A (sheet 1)	02.11.2001
	E-405001 (sheet 2)	06.11.2001
	899100	20.09.1994
	E-402001, rev. A (sheet 1)	06.11.2001
	E-402001 (sheet 2)	06.11.2001
	600845	26.11.2001
	899180, rev. A (sheets 1 and 2)	07.11.2001
	899180 (sheets 3 and 4)	08.11.2001
	899175, rev. A (2 sheets)	20.11.2001
	899120, rev. A (sheet 1)	06.11.2001
	899120, rev. A (sheet 2)	07.11.2001
	899120 (sheet 3)	07.11.2001
	899115, rev. A (2 sheets)	21.11.2001
	899054 (sheets 1, 3, 4, 5 and 6)	16.11.2001
	899054 (sheet 2)	14.11.2001
	899049, rev. B (3 sheets)	19.11.2001
	899052, rev. A (sheets 1 and 3)	21.11.2001
	899052, rev. B (sheet 2)	21.11.2001
	899021, rev. A	21.11.2001
	899608 (sheet 1)	05.03.2001
	899608 (sheet 2)	23.11.2001
	E-490001, rev. A	29.01.2001
	E-490002, rev. A	30.01.2001
	E-490013	11.04.2001
	899044, rev. D (2 sheets)	23.02.2001
	899047, rev. B	01.05.2001

4. Samples

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 00ATEX1132 X**

Electrical data (continued)

Model SHBxR, Model BSP, Model CSP-M, Model CP-M, Model HPS, Model SSB, Model RLC, Model 5103 and Model 9103

Excitation circuit ..... (green and black wires)	in type of explosion protection intrinsic safety EEx ib IIC.
Signal output circuit ..... (white and red wires)	in type of explosion protection intrinsic safety EEx ib IIC.
Sense output circuit (optional) ..... (yellow and blue wires)	in type of explosion protection intrinsic safety EEx ib IIC.

The excitation circuit, the signal output circuit and the optional sense output circuit are galvanically connected and may only be connected to certified intrinsically safe circuits. Voltage, current and power addition of the circuits must be taken into account.

The total maximum values for the above mentioned circuits are with exception of the circuits of Model RLC, for loads of 60 kg, 130 kg, 28 t and 60 t:

U_i	=	19,1	V	
I_i	=	323	mA	
P_i	=	1,25	W	for temperature class T6
		2,75	W	for temperature class T4

The effective internal capacitance C_i = 0,4 nF,
the effective internal inductance L_i is negligibly small.

For Model RLC, for loads of 60 kg, 130 kg, 28 t and 60 t, the maximum values for the above mentioned circuits are:

U_i	=	30	V	
I_i	=	250	mA	
P_i	=	1	W	for temperature class T6

The effective internal capacitance C_i = 2,5 nF,
the effective internal inductance L_i is negligibly small.

For longer cables than specified in the description, the capacitance and inductance of the additional cable must be taken into account.

For use in a potentially explosive atmosphere caused by combustible dust, the Load Cell may also be used without connection to certified intrinsically safe circuits.
The electrical data are:

Maximum excitation voltage:	15 ... 30 Vdc (depending on model)
Bridge impedance:	350 ... 1450 Ω (depending on model)

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 00ATEX1132 X**

(15) **Description**

The Load Cells Model SHBxR-C.-..-..-EEx(i), Model BSP-...-..-..-EEx(i), Model CSP-M-...-..-..-..-EEx(i), Model CP-M-...-..-..-..-EEx(i), Model HPS-...-..-EEx(i), Model SSB-...-..-..-EEx(i), Model HCB-C.-..-....-EEx(i), Model 9102-C.-..-....-EEx(i), Model RLC-..., Model 5103-... and Model 9103-... are used to convert a mechanical force or load into an electrical signal. The Load Cells are of a hermetically sealed or sealed construction and are provided with a permanently connected cable with a maximum length of 10 m (15 m for model RLC-...).

The enclosure of the Load Cell provides, depending on the Model, an ingress protection of IP 66, IP 67 or IP 68 in accordance with EN 60529.

Ambient temperature range -20 °C ... +40 °C.

The maximum surface temperature of the enclosure T = 70 °C is referred to a maximum ambient temperature of 40 °C.

Electrical data

Model HCB and Model 9102

Excitation circuit ..... (green and black wires)	in type of explosion protection intrinsic safety EEx ia IIC.
Signal output circuit ..... (white and red wires)	in type of explosion protection intrinsic safety EEx ia IIC.
Sense output circuit (optional) ..... (yellow and blue wires)	in type of explosion protection intrinsic safety EEx ia IIC.

The excitation circuit, the signal output circuit and the optional sense output circuit are galvanically connected and may only be connected to certified intrinsically safe circuits. Voltage, current and power addition of the circuits must be taken into account.

The total maximum values for the above mentioned circuits are:

U_i	=	19,1	V	
I_i	=	323	mA	
P_i	=	1,25	W	for temperature class T6
		2,75	W	for temperature class T4

The effective internal capacitance C_i = 0,4 nF,
the effective internal inductance L_i is negligibly small.

For longer cables than specified in the description, the capacitance and inductance of the additional cable must be taken into account.

Certificate RLC

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KEMA

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres – Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 00ATEX1132 X**

(4) Equipment or protective system: **Load Cell Model SHBxR, BSP, CSP-M, CP-M, HPS, SSB, HCB, 9102, RLC, 5103 and 9103**

(5) Manufacturer: **Revere Transducers Europe B.V.**

(6) Address: **Ramshoorn 7, 4824 AG Breda, The Netherlands**

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) **KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.**

The examination and test results are recorded in confidential report no. 2007353.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 : 1997 EN 50020 : 1994 EN 50281-1-1 : 1998 EN 50284 : 1999

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex **II 1 G or II 2 G EEx ia IIC T6... T4 or EEx ib IIC T6 ... T4**

Ex **II 2 D T 70 °C**

Arnhem, 7 December 2001
KEMA Quality B.V.

T. Pijpker
Certification Manager

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ACCREDITED BY THE DUTCH COUNCIL FOR ACCREDITATION