cCSAus certificate:

EN

1514310

for CA 28x, CE 28x and CE 31x

EX

Meggitt SA
Route de Moncor 4
PO Box 1616
CH - 1701 Fribourg
Switzerland

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Certificate of Compliance

Certificate: 1514310 **Master Contract:** 175074

Project: 70097496 **Date Issued:** 2016-12-12

Issued to: **Meggitt SA**
Rte de Moncor 4
Villars-sur-Glane, Fribourg 1752
SWITZERLAND
Attention: Carlo Pellegrinelli

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: Hossein Saleh
Hossein Saleh

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

Accelerometers Type CE 28X (sensor with remote electronic) P/N 444-28X-000-YY1, and Type CE 31X (sensor with integrated electronic) P/N 444-28X-000-YY1

The sensor converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal sent to a conditioner (remote, or integrated, respectively) that sends out a modulated current output signal. Intrinsically safe with entity parameters when connected per drawing PZ6684, and PZ6692, respectively.

Ratings:

In type of protection intrinsic safety Ex ia, only for connection to a certified intrinsically safe circuit, with the following entity parameters:

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Part Number	Power Source Type	Vmax	Imax	Li	Ci
444-28X-000-YY1	Linear	28 V	100 mA	0 mH	10.45 nF
444-31X-000-YY1	Linear	28 V	100 mA	0 mH	10.45 nF

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature	
		Conditioner	Sensor and cable
Sensor and remote electronic	444-28X-000-YY1	-55 °C to +100 °C	-55 °C to +260 °C
Sensor and integrated electronic	444-31X-000-YY1	-55 °C to +125 °C	

Temperature Code:

Part Number	T6	T5	T4
444-28X-000-YY1	+80°C	+95°C	+100°C
444-31X-000-YY1	+80°C	+95°C	+125°C

Class I, Division 1, Groups A, B, C and D
Ex ia IIC T6…T2 Ga
Class I, Zone 0, AEx ia IIC T6…T2 Ga

Accelerometer Type CA 28X (sensor only) P/N 144-28X-000-YYY

The sensor converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal that is processed externally. Intrinsically safe with entity parameters when connected per drawing PZ 8721.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YYY depends on the connector type and the cable length (Y = 0…9)

Ratings:

In type of protection intrinsic safety A/Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following entity parameters:

Part Number	Vmax, Ui	Imax, Ii	Pi	Li	Ci sensor	Ci cable
144-28X-000-YYY	28 V	100 mA	0.7 W	0 mH	8 nF	250 pF/m

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature
Sensor only	144-28X-000-YYY	-55 °C to +260 °C

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Temperature Code:

Part Number	T6	T5	T4	T3	T2
144-28X-000-YYY	+80°C	+95°C	+130°C	+195°C	+260°C

Accelerometers Type CE 28X (sensor with remote electronic) P/N 444-28X-000-YY2 to 444-28X-000-YY9

The sensor converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal through a permanently attached cable to a conditioner (electronic box) that sends out a modulated current output signal. Intrinsically safe with entity parameters when connected per drawing PZ 8726.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YY depends on the connector type and the cable length (Y = 0…9)

Ratings:

In type of protection intrinsic safety A/Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following entity parameters:

Part Number	Vmax, Ui	Imax, Ii	Pi	Li	Ci sensor
444-28X-000-YY2 to 444-28X-000-YY9	28 V	100 mA	0.7 W	0 mH	0 nF

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature	
		Conditioner	Sensor and cable
Sensor and remote electronic	444-28X-000-YY2 to 444-28X-000-YY9	-55 °C to +125 °C	-55 °C to +260 °C

Temperature Code:

Type Part Number		T6	T5	T4	T3	T2
444-28X-000-YY2 to	Sensor and cable	+80°C	+95°C	+130°C	+195°C	+260°C
444-28X-000-YY9	Conditioner	+65°C	+80°C	+115°C	+125°C	+125°C

Class I, Division 1, Groups A, B, C and D
Ex ia IIC T6…T3 Ga
Class I, Zone 0, AEx ia IIC T6…T3 Ga

Accelerometers Type CE 31X (sensor with integrated electronic) P/N 444-31X-000-YY2 to 444-31X-000-YY9

The sensor is used for vibration monitoring and converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal that is processed within the integrated signal conditioner and sends

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out a modulated current output signal. Intrinsically safe with entity parameters when connected per drawing PZ 8735.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YY depends on the connector type and the cable length (Y = 0…9)

Ratings:

In type of protection intrinsic safety A/Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following entity parameters.

Part Number	Vmax, Ui	Imax, Ii	Pi	Li	Ci sensor	Ci cable
444-31X-000-YY2 to 444-31X-000-YY9	28 V	100 mA	0.7 W	0 mH	0 nF	250 pF/m

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature
Sensor with integrated conditioner	444-31X-000-YY2 to 444-31X-000-YY9	-55 °C to +125 °C

Temperature Code:

Part Number	T6	T5	T4	T3
444-31X-000-YY2 to 444-31X-000-YY9	+65°C	+80°C	+115°C	+125°C

CLASS - C225802 - PROCESS CONTROL EQUIPMENT- For Hazardous Locations -
CLASS - C225882 - PROCESS CONTROL EQUIPMENT- For Hazardous Locations - Certified to US Standards

Class I, Division 2, Groups A, B, C and D
Ex nA IIC T6…T2 Gc
Class I, Zone 2, AEx nA IIC T6…T2 Gc

Accelerometers Type CA 28X (sensor only) P/N 144-28X-000-YYY

The sensor converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal that is processed externally. Installation shall be in accordance with drawing PZ 8723.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YYY depends on the connector type and the cable length (Y = 0…9)

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Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature
Sensor and cable only	144-28X-000-YYY	-55 ºC to +260 ºC

Temperature Code:

Part Number	T6	T5	T4	T3	T2
144-28X-000-YYY	+80°C	+95°C	+130°C	+195°C	+260°C

Conditions of Acceptability

1. To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
2. Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
3. The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
4. The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Zone 2 and Division 2 and is subjected to acceptance of local authority having jurisdiction.

Accelerometers Type CE 28X (sensor with remote electronic) P/N 444-28X-000-YY2 to 444-28X-000-YY9

The sensor converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal sent through an integrated cable to a conditioner (electronic box) that sends out a modulated current output signal. Installation shall be in accordance with drawing PZ 8732.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YY depends on the connector type and the cable length (Y = 0…9)

Ratings:

In type of protection non-sparking Ex nA IIC with the following maximum values:

Part Number	Maximum Voltage	Maximum Current	Maximum Power
444-28X-000-YY2 to 444-28X-000-YY9	28 V	25 mA	224 mW

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature	
		Electronic	Sensor and cable
Sensor with remote electronic	444-28X-000-YY2 to 444-28X-000-YY9	-55 ºC to +125 ºC	-55 ºC to +260 ºC

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Temperature Code:

Type Part Number		T6	T5	T4	T3	T2
444-28X-000-YY2 to 444-28X-000-YY9	Sensor and cable	+80°C	+95°C	+130°C	+195°C	+260°C
	Conditioner	+65°C	+80°C	+115°C	+125°C	+125°C

Conditions of Acceptability

1. To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
2. Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
3. The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
4. The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Zone 2 and Division 2 and is subjected to acceptance of local authority having jurisdiction.

Class I, Division 2, Groups A, B, C and D
Ex nA IIC T6…T3 Gc
Class I, Zone 2, AEx nA IIC T6…T3 Gc

Accelerometers Type CE 31X (sensor with integrated electronic) P/N 444-31X-000-YY2 to 444-31X-000-YY9

The sensor is used for vibration monitoring and converts mechanical forces (e.g. vibrations) of the equipment to which it is mounted into an electrical signal that is processed within the integrated signal conditioner and sends out a modulated current output signal. Installation shall be in accordance with drawing PZ 8739.

Nomenclature:

X defines the design of the sensor head (X = 0…9)
YY depends on the connector type and the cable length (Y = 0…9)

Ratings:

In type of protection non-sparking A/Ex nA IIC with the following maximum values:

Part Number	Maximum Voltage	Maximum Current	Maximum Power
444-31X-000-YY2 to 444-31X-000-YY9	28 V	25 mA	224 mW

Ambient Temperature Range:

Type Description	Part Number	Ambient Temperature
Sensor with integral conditioner	444-31X-000-YY2 to 444-31X-000-YY9	-55 ºC to +125 ºC

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Temperature Code:

Part Number	T6	T5	T4	T3
444-31X-000-YY2 to 444-31X-000-YY9	+65°C	+80°C	+115°C	+125°C

Conditions of Acceptability

1. To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
2. Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
3. The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
4. The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Zone 2 and Division 2 and is subjected to acceptance of local authority having jurisdiction.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 (R2011)	General Requirements – Canadian Electrical Code, Part II
CSA Standard 1010.1	Safety Requirements for Electrical Equipment for Measurement, Control & Laboratory Use - Part 1: General Requirements
CSA Std. C22.2 No. 213-16	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA-C22.2 No. 60079-0:15	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 60079-15:16	Explosive Atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus
UL 61010C-1, 1st Ed	Standard for Process Control Equipment
ANSI/ISA-12.12.01-2015	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
ANSI/UL 60079-0:13	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-11:13	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"
ANSI/UL 60079-15:13	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection "n"

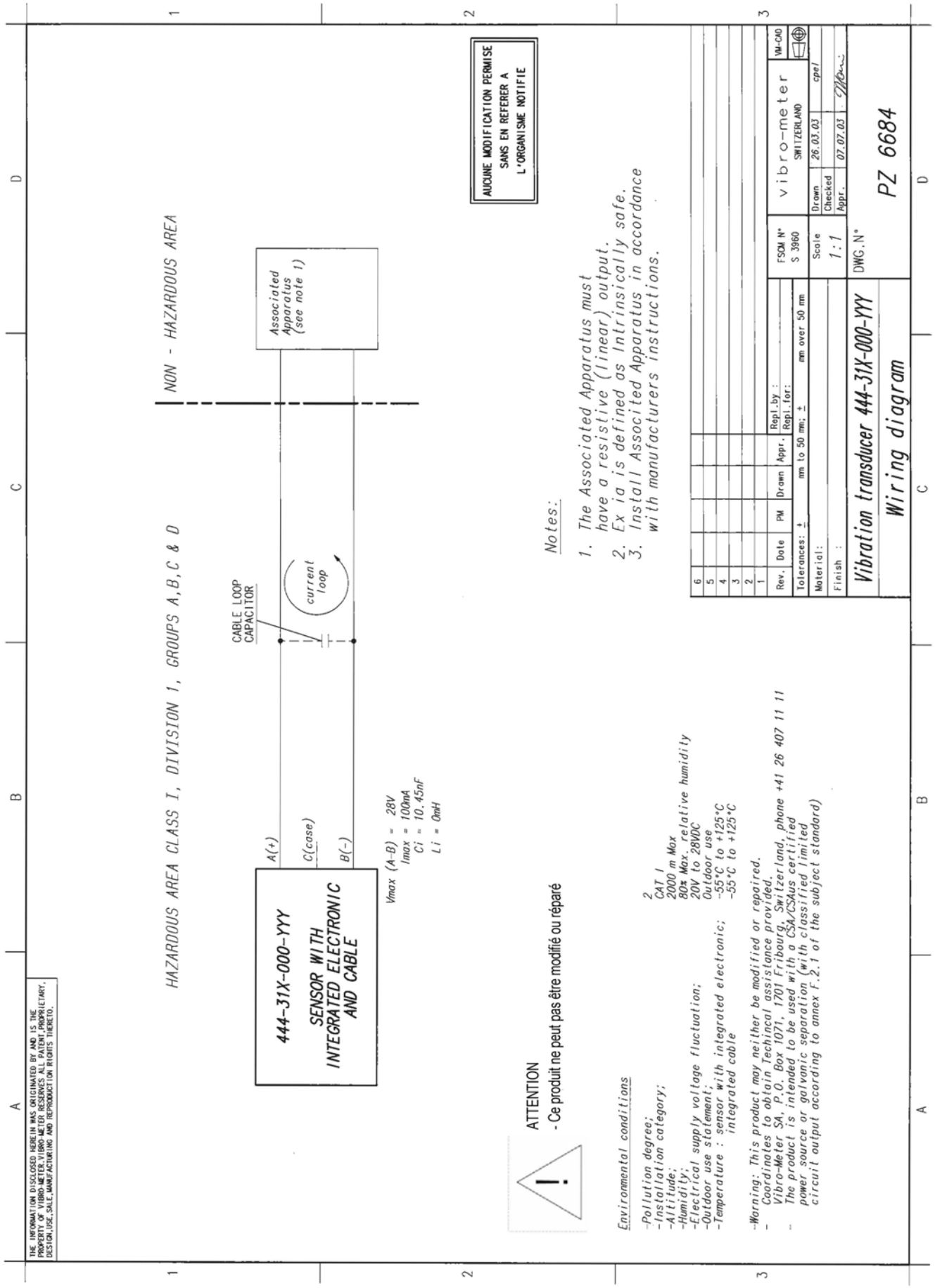
Supplement to Certificate of Compliance

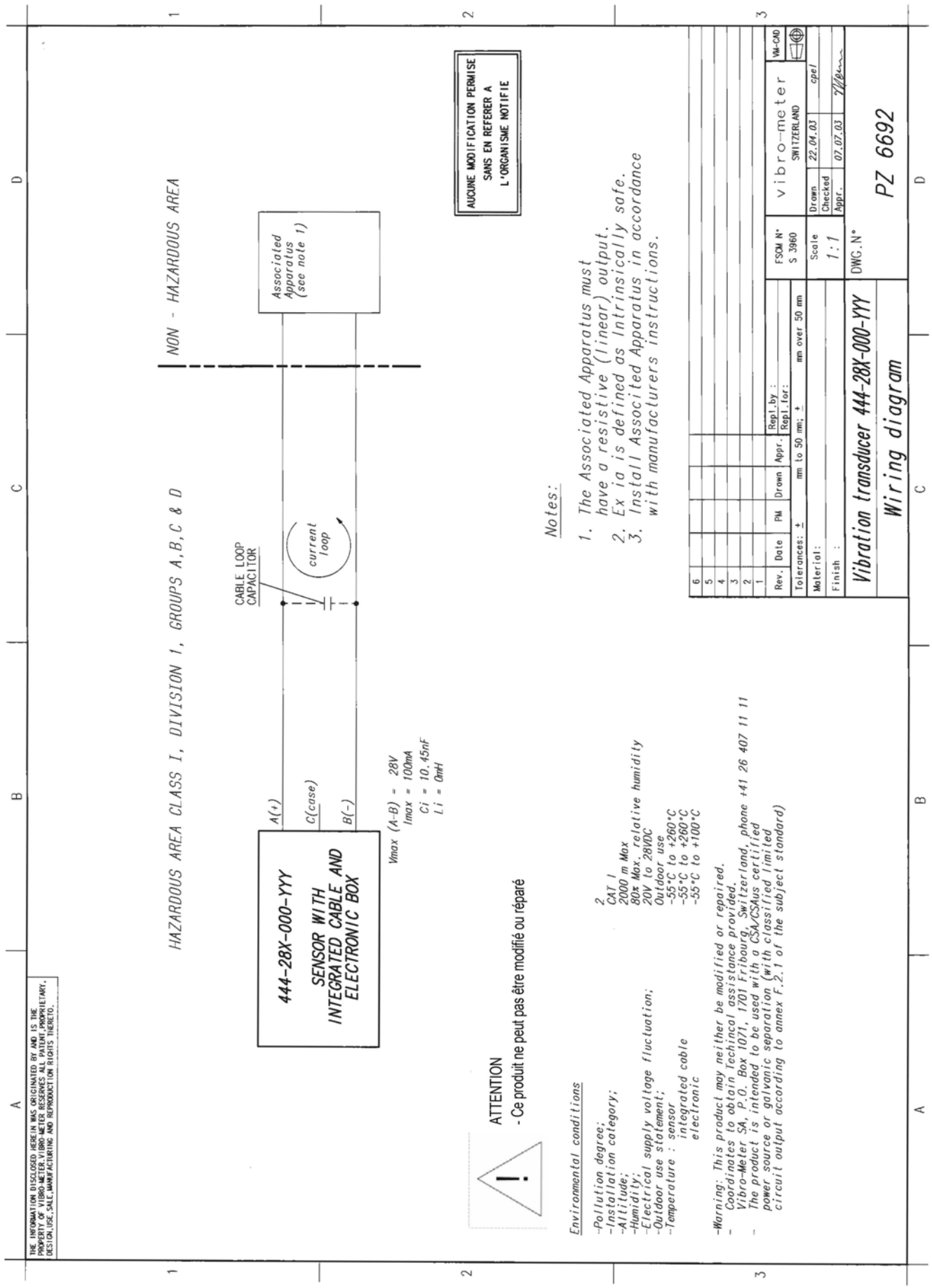
Certificate: 1514310 **Master Contract:** 175074

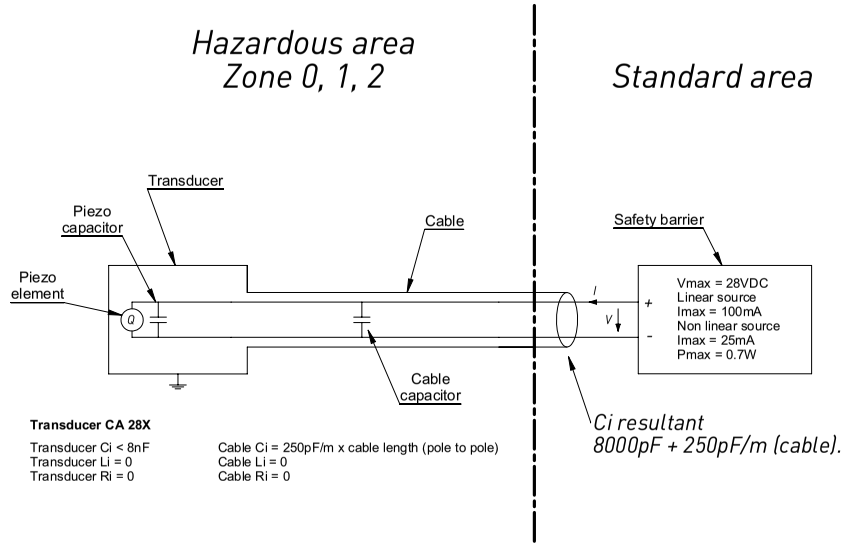
The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70097496	2016-12-12	Update to report 1514310 to include the following changes: New design of electronic conditioner; Introduction of new nomenclature for old and new models; Addition of alternative RT 426 casting compound; Evaluation of intrinsic safe version of product for Division 1 and Zone 0; Evaluation of non-sparking version of product for Division 2 and Zone 2; Update of several control drawings; Update to applicable standards.
2421979	2011-05-05	Update Report 1514310 to include the change of legal entity name
2188588	2009-07-22	Update to report 1514310 to change Ci value from 6nF to 8nF. Evaluation done against following standards: CSA Standard 1010.1, CSA C22.2No. 157-92, UL 61010C-1, and Ul 913.
1648970	2005-04-12	Update to report 1514310 to add a new compound reference Q-Sil 550.
1514310	2004-01-09	Original cCSAus certification for Accelerometer Type 444-31X-000-YYY, 444-28X-000-YYY, and 144-28X-000-YYY.


THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF VIBRO-METER. VIBRO-METER RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING AND REPRODUCTION RIGHTS THERETO.
HAZARDOUS AREA CLASS I, DIVISION 1, GROUPS A,B,C & D
NON - HAZARDOUS AREA
444-31X-000-YYY
SENSOR WITH
INTEGRATED ELECTRONIC
AND CABLE
A(+)
C(case)
B(-)
CABLE LOOP CAPACITOR
current loop
Associated Apparatus (see note 1)
Vmax (A-B) = 28V
Imax = 100mA
Ci = 10.45nF
Li = 0mH
AUCUNE MODIFICATION PERMISE SANS EN REFERER A L'ORGANISME NOTIFIE
ATTENTION
- Ce produit ne peut pas être modifié ou réparé
Notes:
1. The Associated Apparatus must have a resistive (linear) output.
2. Ex ia is defined as Intrinsically safe.
3. Install Associated Apparatus in accordance with manufacturers instructions.
Environmental conditions
-Pollution degree; 2
-Installation category; CAT I
-Altitude; 2000 m Max
-Humidity; 80% Max. relative humidity
-Electrical supply voltage fluctuation; 20V to 28VDC
-Outdoor use statement; Outdoor use
-Temperature : sensor with integrated electronic; -55°C to +125°C
integrated cable -55°C to +125°C
-Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
Vibro-Meter SA, P.O. Box 1071, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with a CSA/CSAus certified power source or galvanic separation (with classified limited circuit output according to annex F.2.1 of the subject standard)
Rev. Date PM Drawn Appr. Repl.by : Repl.for:
Tolerances: ± mm to 50 mm; ± mm over 50 mm
Material:
Finish :
FSCM N° S 3960
Scale 1:1
DWG.N° PZ 6684
vibro-meter SWITZERLAND
Drawn 26.03.03 cpel
Checked
Appr. 07.07.03
Vibration transducer 444-31X-000-YYY
Wiring diagram


THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF VIBRO-METER. VIBRO-METER RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING AND REPRODUCTION RIGHTS THEREIN.
HAZARDOUS AREA CLASS I, DIVISION 1, GROUPS A,B,C & D
NON - HAZARDOUS AREA
444-28X-000-YYY
SENSOR WITH INTEGRATED CABLE AND ELECTRONIC BOX
A(+)
C(case)
B(-)
CABLE LOOP CAPACITOR
current loop
Associated Apparatus (see note 1)
Vmax (A-B) = 28V
Imax = 100mA
Ci = 10.45nF
Li = 0mH
AUCUNE MODIFICATION PERMISE SANS EN REFERER A L'ORGANISME NOTIFIE
ATTENTION
- Ce produit ne peut pas être modifié ou réparé
Notes:
1. The Associated Apparatus must have a resistive (linear) output.
2. Ex ia is defined as Intrinsically safe.
3. Install Associated Apparatus in accordance with manufacturers instructions.
Environmental conditions
-Pollution degree; 2
-Installation category; CAT I
-Altitude; 2000 m Max
-Humidity; 80% Max. relative humidity
-Electrical supply voltage fluctuation; 20V to 28VDC
-Outdoor use statement; Outdoor use
-Temperature : sensor -55°C to +260°C
integrated cable -55°C to +260°C
electronic -55°C to +100°C
-Warning: This product may neither be modified or repaired.
- Coordinates to obtain Techincal assistance provided.
Vibro-Meter SA, P.O. Box 1071, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with a CSA/CSAus certified power source or galvanic separation (with classified limited circuit output according to annex F.2.1 of the subject standard)
Rev. Date PM Drown Appr. Repl.by : Repl.for:
Tolerances: ± mm to 50 mm; ± mm over 50 mm
Material:
Finish :
FSCM N° S 3960
Scale 1:1
DWG. N°
Vibration transducer 444-28X-000-YYY
Wiring diagram
PZ 6692
vibro-meter SWITZERLAND
VM-CAD
Drown 22.04.03 cpel
Checked
Appr. 07.07.03



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

1. Ex ia is defined as intrinsically safe.
2. Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : No supply voltage (charge generator)
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +260°C
  - cable : -55°C to +260°C

- Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
  Meggitt SA, P.O. Box 1616, Route de Moncor 4, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified signal conditioner and safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.

NO MODIFICATION ALLOWED
WITHOUT PRIOR AUTORISATION
OF NOTIFIED BODY

Rev.	Date	Change N°	Drawn	Appr.	Description

MFR	MSS-CAD
S3960	
Scale	Format
1:1	A3

MEGGITT
Meggitt SA
Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

Material:	Repl.by:	Repl.for:

Linear Tolerances [mm]: ›0,5 … 3 | ›3 … 6 | ›6 … 30 | ›30 … 120 | ›120 … 400 | ›400 …1000 | ›1000 …2000 | ›2000 …4000 | - | - | - | - | - | - | - | -

Radius / Chamfers [mm]: ›0,5 … 3 | ›3 … 6 | ›6

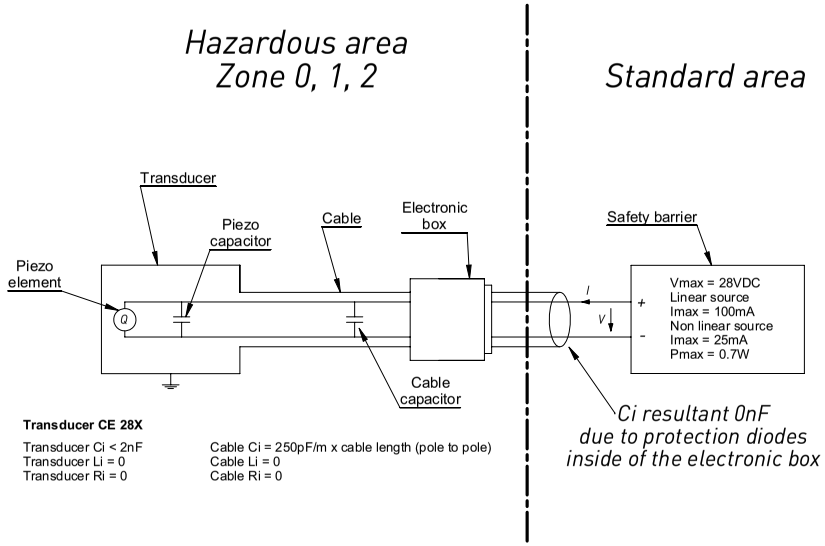
Tol. on angle [°] (L [mm]): … 10 | › 10 … 50 | › 50 … 120 | › 120 … 400

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

Wiring diagram CA 28X (ia)

144-28X-000-YYY

DWG.N°
PZ 8721



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

1. Ex ia is defined as intrinsically safe.
2. Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : 15VDC to 28VDC
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +260°C
  - cable : -55°C to +260°C
  - conditioner : -55°C to +125°C

- Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
  Meggitt SA, P.O. Box 1616, Route de Moncor 4, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified signal conditioner and safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.

Rev.	Date	Change N°	Drawn	Appr.	Description

MFR S3960	MSS-CAD	MEGGiTT
Scale 1:1	Format A3	Meggitt SA Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

Material:	Repl.by:	Repl.for:

Linear Tolerances [mm]: › 0,5 ... 3 | › 3 ... 6 | › 6 ... 30 | › 30 ... 120 | › 120 ... 400 | ›400 ...1000 | ›1000 ...2000 | ›2000 ...4000

Radius / Chamfers [mm]: › 0,5 ... 3 | › 3 ... 6 | › 6

Tol. on angle [°]: ... 10 | › 10 ... 50 | › 50 ... 120 | › 120 ... 400

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

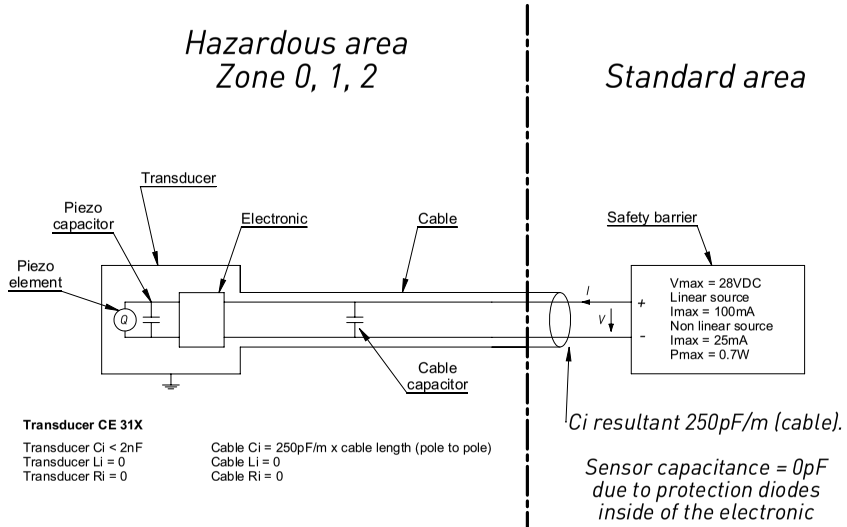
Wiring diagram CE 28X (ia)

444-28X-000-YY2 to -YY9

DWG.N°

PZ 8726

MEGGiTT



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

1. Ex ia is defined as intrinsically safe.
2. Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : 15VDC to 28VDC
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +125°C
  - cable : -55°C to +125°C

- Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
  Meggitt SA, P.O. Box 1616, Route de Moncor 4, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified signal conditioner and safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.

NO MODIFICATION ALLOWED
WITHOUT PRIOR AUTORISATION
OF NOTIFIED BODY

Rev.	Date	Change N°	Drawn	Appr.	Description

MFR	MSS-CAD
S3960	
Scale	Format
1:1	A3

MEGGITT
Meggitt SA
Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

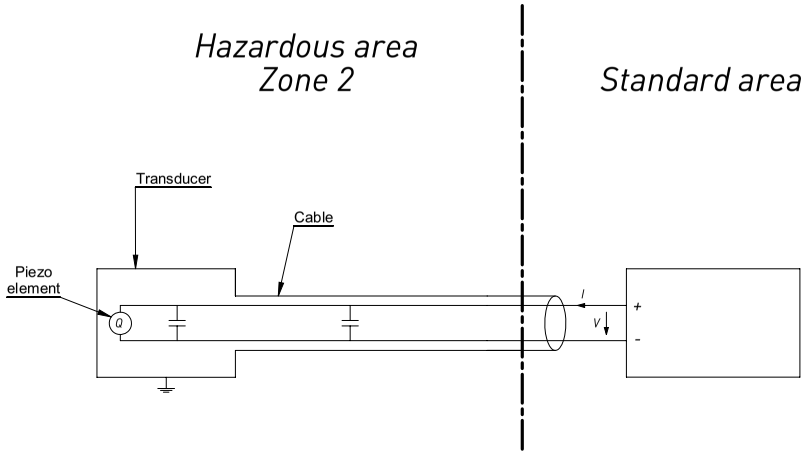
Material:	Repl.by:	Repl.for:

Linear Tolerances [mm]									Radius / Chamfers [mm]			Tol. on angle [°]				
› 0,5 … 3	› 3 … 6	› 6 … 30	› 30 … 120	› 120 … 400	›400 …1000	›1000 …2000	›2000 …4000		› 0,5 … 3	› 3 … 6	› 6	… 10	› 10 … 50	› 50 … 120	› 120 … 400	
-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

Wiring diagram CE 31X (ia)
444-31X-000-YY2 to YY9

DWG.N°
PZ 8735



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : No supply voltage (charge generator)
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +260°C
  - cable : -55°C to +260°C

- To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
- The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
- The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Zone 2 and Division 2 and is subjected to acceptance of local authority having jurisdiction.

- Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
  Meggitt SA, P.O. Box 1616, Route de Moncor 4, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified signal conditioner and safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.

Rev.	Date	Change N°	Drawn	Appr.	Description

MFR	MSS-CAD
S3960	
Scale	Format
1:1	A3

MEGGiTT
Meggitt SA
Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

Material:	Repl.by:	Repl.for:

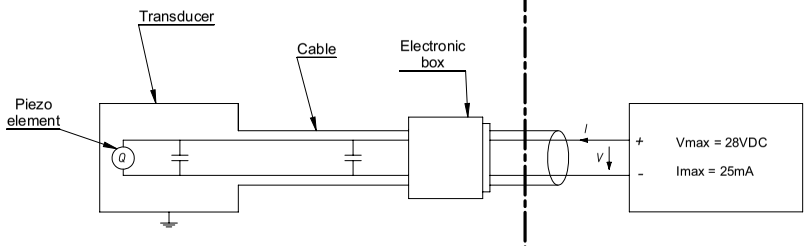
Linear Tolerances [mm]									Radius / Chamfers [mm]			Tol. on angle [°]				
'	› 0,5 ... 3	› 3 ... 6	› 6 ... 30	› 30 ... 120	› 120 ... 400	›400 ...1000	›1000 ...2000	›2000 ...4000	› 0,5 ... 3	› 3 ... 6	› 6	... 10	› 10 ... 50	› 50 ... 120	› 120 ... 400
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

Wiring diagram CA 28X (nA)
144-28X-000-YYY

DWG.N°
PZ 8723

MEGGiTT



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : 15VDC to 28VDC
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +260°C
  - cable : -55°C to +260°C
  - conditioner : -55°C to +125°C

- To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
- The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
- The final installation of the device shall meet the requirements of CEC (for Canada) and NEC (for USA) for wiring method in Zone 2 and Division 2 and is subjected to acceptance of local authority having jurisdiction.

- Warning: This product may neither be modified or repaired.
- Coordinates to obtain Technical assistance provided.
  Meggitt SA, P.O. Box 1616, Route de Moncor 4, 1701 Fribourg, Switzerland, phone +41 26 407 11 11
- The product is intended to be used with certified signal conditioner and safety barrier.
- To ensure an installation conform with an explosive environment, it is crucial to respect the criteria mentioned into the corresponding Ex certificates.

NO MODIFICATION ALLOWED
WITHOUT PRIOR AUTORISATION
OF NOTIFIED BODY

Rev.	Date	Change N°	Drawn	Appr.	Description

MFR	MSS-CAD
S3960	
Scale	Format
1:1	A3

MEGGITT
Meggitt SA
Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

Material:	Repl.by:	Repl.for:

Linear Tolerances [mm]

› 0,5 … 3	› 3 … 6	› 6 … 30	› 30 … 120	› 120 … 400	›400 …1000	›1000 …2000	›2000 …4000
-	-	-	-	-	-	-	-

Radius / Chamfers [mm]

› 0,5 … 3	› 3 … 6	› 6
-	-	-

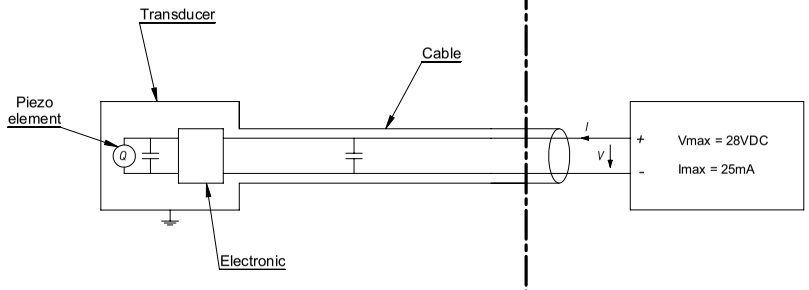
Tol. on angle [°] (L [mm])

… 10	› 10 … 50	› 50 … 120	› 120 … 400
-	-	-	-

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

Wiring diagram CE 28X (nA)
444-28X-000-YY2 to -YY9

DWG.N°
PZ 8732



WARNING:
- THIS PRODUCT MAY NEITHER BE MODIFIED OR REPAIRED

ATTENTION
- CE PRODUIT NE PEUT PAS ETRE MODIFIE OU REPARE

Notes

Install associated apparatus in accordance with manufacturers instructions.

Environmental conditions

- Pollution degree : 2
- Installation category : CAT I
- Altitude : 2000 m Max
- Humidity : 80% Max relative humidity
- Electrical supply voltage fluctuation : 15VDC to 28VDC
- Outdoor use statement : Outdoor use
- Temperature operational
  - sensor : -55°C to +125°C
  - cable : -55°C to +125°C

- To be supplied by a Class 2 or Limited Energy Source in accordance with CSA/UL 61010-1.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.
- The final installation shall ensure that there is no risk of mechanical impact to the cable of the device.
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Rev.	Date	Change N°	Drawn	Appr.	Description

MFR	MSS-CAD
S3960	
Scale	Format
1:1	A3

MEGGITT
Meggitt SA
Rte de Moncor 4, CH-1752 Villars-sur-Glâne, Switzerland

Material:	Repl.by:	Repl.for:

Linear Tolerances [mm]									Radius / Chamfers [mm]			Tol. on angle [°]				
'	› 0,5 ... 3	› 3 ... 6	› 6 ... 30	› 30 ... 120	› 120 ... 400	›400 ...1000	›1000 ...2000	›2000 ...4000	› 0,5 ... 3	› 3 ... 6	› 6	... 10	› 10 ... 50	› 50 ... 120	› 120 ... 400
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Drawn	30.06.16	C.Pellegrinelli
Check.	30.06.16	H-P.Aeby
Appr.	30.06.16	J.Perriard

Wiring diagram CE 31X (nA)
444-31X-000-YY2 to -YY9

DWG.N°
PZ 8739