QPS Evaluation Services Inc
Testing, Certification and Field Evaluation Body
Accredited in Canada, the USA, and Internationally

File
LR1346

CERTIFICATE OF COMPLIANCE
(ISO TYPE 3 CERTIFICATION SYSTEM)

Issued to	Temposonics GmbH & Co. KG
Address	Auf Dem Schüffel 9 Lüdenscheid, Germany D-58513
Project Number	LR1346-3R1
Product	Linear Position Sensors
Model Number	Tempsonics ® E-Series ET (see Annex below for full model information)
Electrical Ratings	See Annex below
Markings	See Annex below
Applicable Standards	CSA C22.2 No. 60079-0:2015, CSA C22.2 No. 60079-15:2016 CSA C22.2 No. 60079-31:2015, CSA C22.2 No. 61010-1:2012 CSA C22.2 No. 94.2:2015, ANSI/ISA 12.12.01 (2015) ANSI/UL 61010-1 (2012), ANSI/UL 50E 2nd Edition ANSI/UL 60079-0 (2013),ANSI/UL 60079-31 (2015) ANSI/UL 2225 (2013)
Factory/Manufacturing Location	Temposonics GmbH & Co. KG Auf Dem Schüffel 9, Lüdenscheid, Germany D-58513
Conditions of Certification	N/A

Statement of Compliance: The product(s)/equipment identified in this Certificate and described in the Certification Report covered under the above referenced project number have been investigated and found to be in compliance with the relevant requirements of the above referenced standard(s). As such, they are eligible to bear the QPS Certification Mark shown below, in accordance with the provisions of QPS's Service Agreement.

IMPORTANT NOTE: In order to maintain the integrity of the QPS Mark(s), certification will be revoked if:
  (1) Compliance to the above-mentioned Standard(s), or those identified in future QPS Standard Update Notice – SUN (QSD 55) is not maintained, or,
  (2) If the product/equipment is modified after certification is granted without prior written consent by QPS

Issued By: Rob Kohuch, P. Eng.

Signature: _(signature)_

Date: May 15, 2024

QSD 34HL

Rev 01

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ANNEX:

Product: Linear Position Sensors Tempsonics ® E-Series ET
Models: SSI Output, Analog & Digital Start/Stop

Model (output)	Canada	US
Analog	Ex nC IIC T4 Gc Ex tc IIIC T130°C Dc IP66/68 -40°C ≤Ta≤75°C Type 4X	Class I/II/III Div 2 T4 ABCDFG Class I Zone 2 T4 IIC Zone 22 AEx tc T4 IIIC Dc -40°C ≤Ta≤75°C, Type 4X
Analog	Ex nC IIC T4 Gc Ex tc IIIC T130°C Dc IP66/68 -40°C ≤Ta≤85°C Type 4X	Class I/II/III Div 2 T4 ABCDFG Class I Zone 2 T4 IIC Zone 22 AEx tc T4 IIIC Dc -40°C ≤Ta≤85°C, Type 4X
Digital Start/Stop	Ex nC IIC T4 Gc Ex tc IIIC T130°C Dc IP66/68 -40°C ≤Ta≤105°C Type 4X	Class I/II/III Div 2 T4 ABCDFG Class I Zone 2 T4 IIC Zone 22 AEx tc T4 IIIC Dc -40°C ≤Ta≤105°C, Type 4X
SSI Output	Ex nC IIC T4 Gc Ex tc IIIC T130°C Dc IP66/68 -40°C ≤Ta≤90°C Type 4X	Class I/II/III Div 2 T4 ABCDFG Class I Zone 2 T4 IIC Zone 22 AEx tc T4 IIIC Dc -40°C ≤Ta≤90°C, Type 4X

*Models are differentiated by output signal type

Each model has its own designated ambient range and dust temperature limitation (see table).

The sensors are supplied with a permanently connected cable with a rated voltage of 24 (-15%, +20%) VDC and a maximum current of 105 mA.

The equipment is intended for permanent field installation.

Model nomenclature below:

ET Configurator

Model Number Configurator:

```
1 2      3            4  5  6  7  8          9  10 11       12     13 14
E T      —            —  —  —  —  —          —  —  —        —      —  —
```

(1 - 2) SENSOR MODEL

ET = extended temperature

(3) HOUSING STYLE

Model ET HEX-shape housing only (magnet(s) must be ordered separately)

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M = Flat faced flange, metric threads M18 x 1.5, rod diameter 10 mm

S = Flat faced flange, US customary threads ¾" – 16 UNF, rod diameter 10 mm

W = Flat faced flange, metric threads M18 x 1.5, rod diameter 10 mm, material 1.4404, AISI 316L

F = Flat faced flange, US customary threads ¾-16, rod diameter 10 mm, material 1.4404, AISI 316L

P = Profile style

(4 - 8) STROKE LENGTH

__ __ __ . __ $\underline{U}$ = Inches and tenths (2" ... 118,1)

or

__ __ __ __ $\underline{M}$ = millimeters (25 ... 3000 mm in steps of 5mm)

(9 - 11) CONNECTION TYPE

Txx   =   Teflon cable

standard: 2m, 5m, 10m, 15m, 25m (max. length 30 m)

Vxx = Silicone cable 530113, 3 x 2 x 0.25

Dxx = Conector

(12) RESERVED FOR FUTURE USE

1 = Standard default, (data sheet shows, "Input Voltage: 1 = +24 VDC (+20%, -15%), standard")

(13) Certification

N = none

A = Ex Approvals: IECEx, ATEX, NEC505/506

E = Ex Approvals: IECEx, ATEX, NEC505/506 with 1/2" NPT Adapter

(14 – 20) OUTPUT

V01 = 0 to 10 VDC (1 output channel with 1 magnet)
V11 = 10 to 0 VDC (1 output channel with 1 magnet)
V02 = 0 to 10 VDC (2 output channels with 2 magnets)
V12 = 10 to 0 VDC (2 output channels with 2 magnets)
V03 = 0 to 10 VDC and 10 to 0 VDC (2 output channels with 1 magnet)

Analog current (14-16)
A01 = 4 to 20 mA (1 output channel with 1 magnet)
A11 = 20 to 4 mA (1 output channel with 1 magnet)
A02 = 4 to 20 mA (2 output channels with 2 magnets)
A12 = 20 to 4 mA (2 output channels with 2 magnets)
A03 = 4 to 20 mA and 20 to 4 mA (2 output channels with 1 magnet)

Start/Stop (14-15)
R3 = Start/Stop with sensor parameters upload function

SSI (14-20)

S = SSI	1 = 25 bit	G = gray code	1 = 0.005 mm	1 = no filter	00 = Forward, async.
	2 = 24 bit	B = binary	2 = 0.01 mm	2 = avg 2	01 = Reverse async
			3 = 0.05 mm	3 = avg 4	02 = Sync. Measurement, forward
			4 = 0.1 mm	4 = avg 8	03 = Sync. Measurement, reverse
			5 = 0.02 mm		

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