

[1] **EU - TYPE EXAMINATION CERTIFICATE**
[2] **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU Annex III, Module B

[3] EU – Type Examination Certificate Number ACE25ATEX053X Rev00
[4] Product Temperature Sensor/Temperature Transmitter Model: T**V*-L*-P(A/F)*-D*-C*-T*-R*-M*-E*-A*-B*-S*
[5] Manufacturer Tempress A/S
[6] Address Sonderskovvej 10, 8362 Horning, Denmark

[7] This equipment or protective system and any acceptable variation there to are specified in the schedule to this certificate and the documents therein referred to.

[8] Advanced Consulting and Engineering Iberia SL (A.C.&E. Iberia S.L.), Notified body Accreditation nº: NB3024 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive

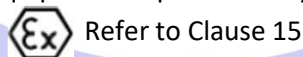
The examination and test results are recorded in confidential Report nº.
EX_EXD028_25_25-1612, EX_EXI008_25_25-1612, EX_EXT015_25_25-1612

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018 : Explosive atmospheres — Part 0: Equipment — General requirements
EN 60079-1:2014: Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures ‘d’
EN 60079-11:2012:Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
EN 60079-31:2014: Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure ‘t’

[10] If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the point 17 of This certificate.

[11] This EU – Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:



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Date: 23/12/2025



**Advanced Consulting and Engineering
Iberia SL**
Notified Body No NB3024

Matteo Marconi, CEO

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[13]

SCHEDULE

[14]

EU-Type Examination Certificate No: ACE25ATEX053X Rev00

[15] Description of equipment

1.The list of Ex-marking:

TR20 Series, TC10 Series, TR25 Series, TC15 Series:

II 1 G Ex ia IIC T6...T1 Ga

TR20 Series, TC10 Series:

II 2 G Ex db IIC T6...T1 Gb

II 2 D Ex tb IIIC T85°C...T440°C Db,

II 1 D Ex ta IIIC T₂₀₀80°C...T₂₀₀440°C Da

Nomenclature:

T**V*-L*-P(A/F)*-D*-C*-T*-R*-M*-E*-A*-B*-S*,

First*, which can be C for thermocouple or R for RTD.

Second*, which can be 10,20 for product with terminal head, can be 15, 25 for product with cable.

Code 10 and 15 are for thermocouple. Code 20 and 25 are for RTD.

C*, which can be 0~10000, for cable length (only for TC15 Series and TR25 Series)

T*, which can be 1~30, for cable end (only for TC15 Series and TR25 Series)

B* for terminal head type, which can be B0~B13 (only for TC10 Series and TR20 Series)

Other* does not related to Ex properties

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Relation between type and electric parameters, Table 1:

Ex marking		Type and relevant electrical parameters	
		TR20 Series, TC10 Series	TR25 Series, TC15 Series
Without transmitter	II 2 G Ex db IIC T6...T1 Gb II 1 D Ex ta IIIC T ₂₀₀ 80°C...T ₂₀₀ 440°C Da	U=8...35V DC I=4...20mA	/
	II 1 G Ex ia IIC T6...T1 Ga	U _i =28V DC, I _i =93mA, P _i =0.65W, C _i =0μF, L _i =0mH	U _i =28V DC, I _i =93mA, P _i =0.65W, C _i =0μF, L _i =0mH L _c ≤0.6μH/m, C _c ≤ 250pF/m, L/R≤25μH/Ω
With transmitter	II 2 G Ex db IIC T6...T1 Gb II 2 D Ex tb IIIC T85°C...T440°C Db (when installed inside with transmitter module typed 5331***, 5332*, 5334***, 5335*, 5337*, 5437D...)	U _{max} =30V, Loop current range:4~20mA	/
	II 2 G Ex db IIC T6...T1Gb II 2 D Ex tb IIIC T85°C...T440°C Db (when installed inside with transmitter module typed 5333A, 5343A, TH320/TH420, type 7NG0317..., type 7NG0310..., type 7NG0410...)	U _{max} =35V, Loop current range:4~20mA	/
	II 2 G Ex db IIC T6...T1 Gb II 2 D Ex tb IIIC T85°C...T440°C Db (when installed with flameproof transmitter module typed 7501**A1*12* Covered by IECEx DEK15.0039Xwith silicone rubber sealing-ring)	U _{max} =35V, Loop current range:4~20mA	/
	II 1 G Ex ia IIC T5...T1 Ga	With DEKRA 20ATEX0105X, DEKRA 20ATEX0106X typed 5333*, 5343*: U _i =30V, I _i =120mA, P _i =0.84W, C _i =1nF, L _i =10μH With DEKRA 20ATEX0095X, DEKRA 20ATEX0096X typed 5331*, 5332*, 5334*: U _i =30V, I _i =120mA, P _i =0.84W, C _i =1nF, L _i =10μH With DEKRA 20ATEX0108X, DEKRA 20ATEX0109X typed 5335*, 5337*: U _i =30V, I _i =120mA, P _i =0.84W, C _i =1nF, L _i =0μH	

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		<p>With DEKRA 16ATEX0047X typed 5437D...: $U_i=30V$, $I_i=120mA$, $P_i=0.9W$, $C_i=1nF$, $L_i=0\mu H$</p> <p>With DEKRA 17ATEX0116X typed TH320/TH420, type 7NG0317..., type 7NG0310..., type 7NG0410...: $U_i=30V$, $I_i=120mA$, $P_i=0.9W$, $C_i=1nF$, $L_i=0\mu H$</p> <p>With DEKRA 15ATEX0058X typed 7501**A1*12*: $U_i=30V$, $I_i=120mA$, $P_i=0.84W$, $C_i=2nF$, $L_i=0\mu H$</p>	
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For product RTD with direct wiring TR25 Series and thermocouple with direct wiring TC15 Series, the electrical parameters of cables are $L_c \leq 0.6\mu H/m$, $L_c/R_c \leq 25\mu H/\Omega$ and $C_c \leq 250pF/m$.

List of the transmitters covered by separated ATEX certificates, Table 2

Manufacturer	Type	Certificate
PR Electronics A/S	5331*, 5332*, 5334*	DEKRA 20ATEX0095X DEKRA 20ATEX0096X
PR Electronics A/S	5333*, 5343*	DEKRA 20ATEX0105X DEKRA 20ATEX0106X
PR Electronics A/S	5335*, 5337*	DEKRA 20ATEX0108X DEKRA 20ATEX0109X
PR Electronics A/S	5437D...	DEKRA 16ATEX0047X
Siemens AG	TH320/TH420, type 7NG0317..., type 7NG0310..., type 7NG0410...	DEKRA 17ATEX0116X
PR Electronics A/S	7501**A1*12*	DEKRA 15ATEX0058X

Relation between external heating source (process temperature) and temperature class, Table 3

Temperature of the process connection exposed to explosive atmosphere	Temperature class without transmitter	Temperature class (Gb/Db) When installed with transmitter module typed 7501**A1*12* covered by DEKRA 15ATEX0058X or installed inside with transmitter module listed in table1)	Temperature class (Ga) when installed with intrinsic safety transmitter module with listed in table1)
70°C	T6/T80°C	T6/T85°C	-
85°C	T5/T95°C	T5/T100°C	T5
120°C	T4/T130°C	T4/T130°C	T4
185°C	T3/T195°C	T3/T195°C	T3
280°C	T2/T290°C	T2/T290°C	T2
430°C	T1/T440°C	T1/T440°C	T1

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[13] **SCHEDULE**

[14] EU – Type Examination Certificate No: ACE25ATEX053X Rev00

[16] Test documents are listed in the test report nº
EX_EXD028_25_25-1612, EX_EXI008_25_25-1612, EX_EXT015_25_25-1612

- [17] Special conditions for safe use
1. Rated ambient temperature: -40°C~+60°C.
 2. Contact the original manufacturer for the detail information of flameproof joint.
 3. For use in combustible dust atmospheres, potential electrostatic hazard shall be observed, refer to user manual for details information.
 4. For used in explosive atmospheres where required EPL Ga and Da, when the product is cooperated with aluminum alloy housing, protection shall be applied to avoid an ignition hazard due to impact or friction.
 5. For product protected by Ex db and tb, separated certified cable gland which is suitable for the type of protection shall be installed.
 6. The relation between temperature of the process connection exposed to explosive atmosphere and the temperature class of the equipment:

Temperature of the process connection exposed to explosive atmosphere	Temperature class without transmitter	Temperature class (Gb/Db) When installed with transmitter module typed 7501**A1*12*covered by DEKRA 15ATEX0058X or installed inside with transmitter module listed intable1)	Temperature class(Ga) when installed with intrinsic safety transmitter module with listed in table1)
70°C	T6/T80°C	T6/T85°C	-
85°C	T5/T95°C	T5/T100°C	T5
120°C	T4/T130°C	T4/T130°C	T4
185°C	T3/T195°C	T3/T195°C	T3
280°C	T2/T290°C	T2/T290°C	T2
430°C	T1/T440°C	T1/T440°C	T1

[18] Essential Health and Safety Requirements
Are fulfilled by the harmonized standard

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[19] Documents and technical datasheets:

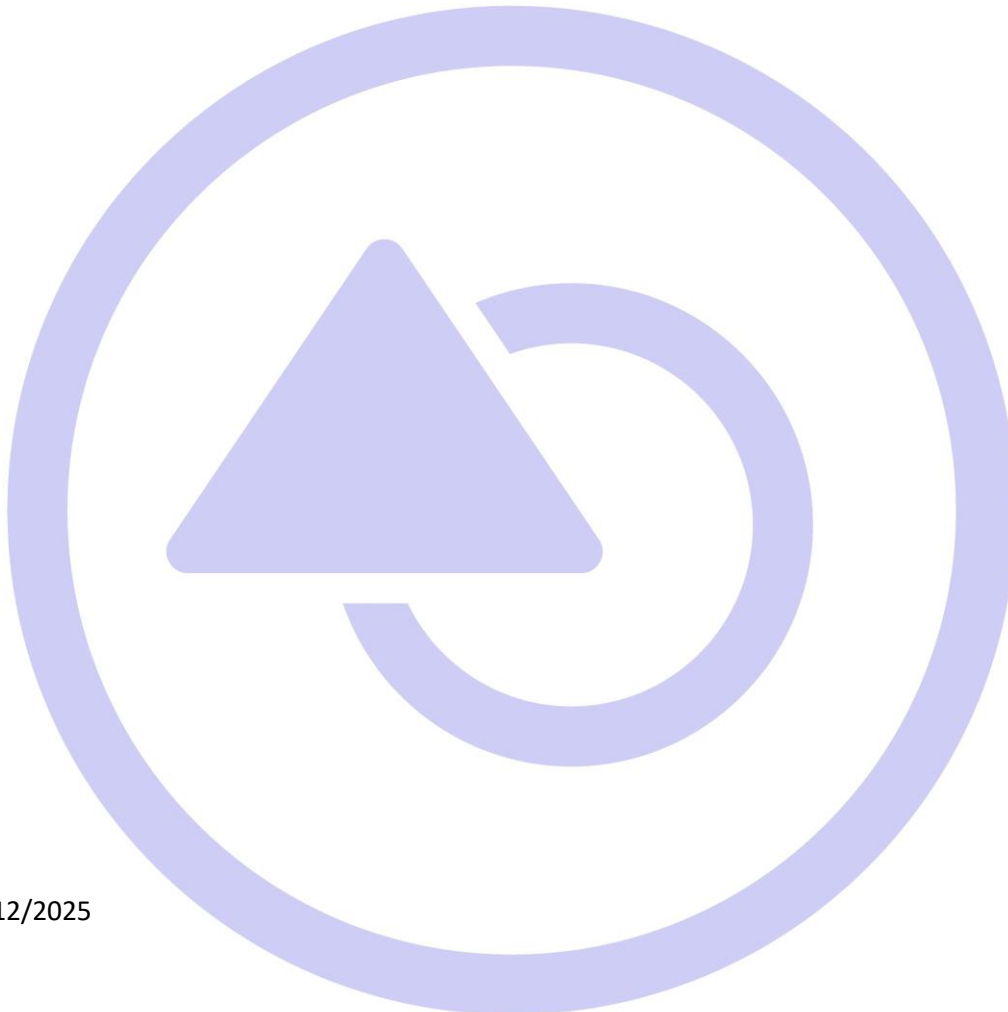
Title	Object	Revision	Date
General assembly for I.S. product	7056.1001A.01~02	Rev.01	2023.1.10
Junction box for I.S. product	TLS-00~05,TLS-07, TLS-09,TLS-11~14	Edition 2.0	2024.7.19
Circuit schematic	7092.1000	Edition 2.0	2023.1.10
General assembly for flameproof product	7156.1001A.01~02	/	2023.1.10
BEA junction box	TLS-04	/	2023.1.10
BES junction box	TLS-05	/	2023.1.10
BGA junction box	TLS-11	/	2023.1.10
BGS junction box	TLS-12	/	2023.1.10
BGV junction box	TLS-13	/	2023.1.10
Nameplate for flameproof product	TLS-04-01,TLS-05-01,TLS-11-01,TLS-12-02,TLS-13-02	/	2024.7.19
Nameplate for intrinsic safety product	TLS-00~05-01,TLS-07-01, TLS-09-01,TLS-11~15-01	/	2024.7.19
Datasheet of Araldite 2011		/	2021.1
User manual	ACT-EX-03-2022	A/3	2025.3.26
Datasheet of VMQ rubber	/	/	2025.3.26
Material report for stainless steel 316L tube	/	/	2024.6.21
Material report for stainless steel 304 tube	/	/	2025.3.20
Material report for stainless steel 316L junction box	/	/	2022.10.30
Material report for aluminum alloy ADC12 junction box	/	/	2024.6.20
IECEX test report	IECEX Test report number: CN/CQM/ExTR24.0049/00 Testing Laboratory: Shanghai Meike Test Technology Co.,Ltd /Shanghai Electric Explosion Proof Test Center of Coal Industry (SHC)	00	2025.4.19

The above-mentioned documents are strictly confidential and they are of only use of authorities.
A copy of the documents is saved by A.C.&E. Iberia S.L.

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[20] Certificate History

Certificate Number	Rev.	Comments	Date
ACE25ATEX053X	00	First emission	23/12/2025



Date: 23/12/2025



**Advanced Consulting and Engineering
Iberia SL**
Notified Body No NB3024

Matteo Marconi, CEO

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