



This certificate is issued for the electrical apparatus

Temperature transmitter 600T series model 653....

manufactured by ABB Kent-Taylor S.p.A - Lenno (CO)

and submitted for certification by ABB Kent-Taylor S.p.A - Lenno (CO)

This electrical apparatus and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

CESI, being an approved certification body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC), certifies that the apparatus complies with harmonized European Standards for electrical apparatus for potentially explosive atmospheres

EN 50.014 - 1977 + A1..A5 (CEI 31-8) - General requirements

EN 50.018 - 1977 + A1..A3 (CEI 31-1) - Flameproof enclosure "d"

EN 50.020 - 1977 + A1..A5 (CEI 31-9) - Intrinsic safety "i"

as it has successfully met the verification and test requirements prescribed by these Standards. A confidential test report has been issued resuming the obtained results.

The apparatus shall be marked with the following code

EEx d IIC T6, T5

EEx ia IIC T6, T4

The supplier of the electrical apparatus referred to in this certificate, by marking the supplied product, has the responsibility to ensure that the apparatus conforms to the specification laid down in the schedule to this certificate and has satisfied the routine verifications and tests specified therein.

This apparatus may be marked with the distinctive Community mark specified in Annex II to the Commission Directive 84/47/EEC of 16 January 1984 and here printed.

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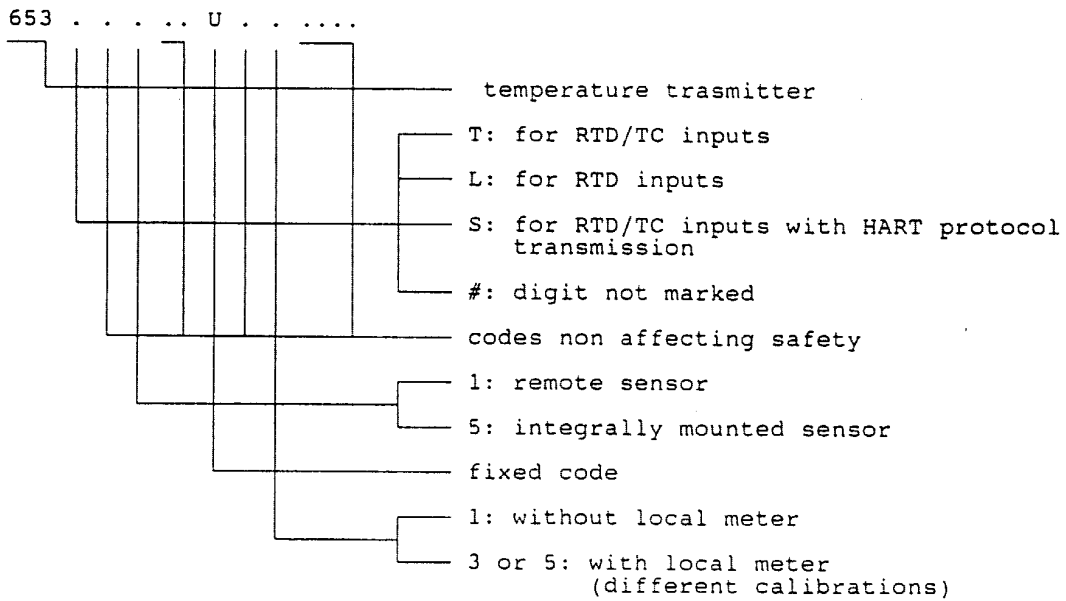
CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Responsabile Area Certificazioni

IDENTIFICATION AND DESCRIPTION OF THE ELECTRICAL APPARATUS

Temperature transmitter 600T series model 653....

Identification code



SPECIAL CONDITIONS FOR SAFE USE (X)

The selection of the type of protection shall be made by ticking off the relevant safety code (EEx d or EEx i) on the plate.

The installation shall be performed according to the document no. 1H5-15-107IN dated January 14, 1998, annexed to this certificate.

The correct use of the transmitter shall be performed in such a way that it does not invalidate the relevant safety code (EEx d or EEx i)

ELECTRICAL CHARACTERISTICS

Type of protection EEx d

- Maximum supply voltage : 35 V_{dc}
- Maximum supply current : 23 mA_{dc}
- Output signal : 4 ÷ 20 mA

The temperature classes of the transmitter are the following:

Temperature class	Ambient temperature
T6	-40 °C ÷ +70 °C
T5	-40 °C ÷ +85 °C

Warning label:

The supply cables must be suitable for:

- 75 °C (with ambient temperature +70 °C),
- 90 °C (with ambient temperature +85 °C).

Type of protection EEx i

- U_i : 28 V
- I_i : 120 mA
- P_i : 0,9 W
- C_i = 1 nF
- L_i = 10 μ H

The temperature classes of the transmitter are the following:

Temperature class	Ambient temperature [°C]
T6	- 40 ÷ + 60
T4	- 40 ÷ + 85

ADDITIONAL CONDITIONS

Type of protection EEx d

The accessories used for the cable entries must be certified according to EN 50.014 and EN 50.018 standards.

Type of protection EEx i

The temperature transmitter 600T series model 653.... must be supplied by associated apparatus certified according to EN 50.014/50.020 standards with the electrical characteristics indicated at page 3.

The parameters of the temperature transmitter and the optional device (meter), subject of separate certification, shall be according to the electrical parameters of the intrinsically safe system in which they are connected.

ROUTINE TESTS

- The manufacturer must carry out the routine tests prescribed at clause 23 of EN 50.014 standard.
- The overpressure test on the temperature transmitter 600T series model 653.... was carried out at 52 bar, with the static method, corresponding to four times the reference pressure .

VERIFICATION OF THE DEGREE OF PROTECTION

The temperature transmitter 600T series model 653.... having the gaskets indicated on the document annexed to this certificate, have been tested in accordance with the specifications of IEC 589 (1989) standard for the degree of protection IP 67.

The test results prove that the temperature transmitter comply with the specifications of IEC 589 (1989) standard for the degree of protection IP 67.

DESCRIPTIVE DOCUMENTS (prot. EX-98/002698)

- Annex E dated 14.01.1998
- Technical Note no. TN 1H5-15-0815E dated 14.01.1998
- Drawing no. 1H5-15-00815 dated 08.01.1998
- Document no. 1H5-15-1071IN dated 14.01.1998

Type of protection EEx d

- Annexed to certificate CESI EX-95.D.111 dated 10.11.1995
- Annexed to extension 01/96 to cert. CESI EX-95.D.111 dated 07.05.1996
- Annexed to extension 02/97 to cert. CESI EX-95.D.111 dated 25.06.1997

Type of protection EEx i

- Drawing no. 1H5-15-00805/1 dated 07.05.1996
- Drawing no. 1H5-15-00805 dated 09.10.1995
(Annexed to the certificate DEMKO No. 95D.119293 and to appendix II to cert. DEMKO No. 95D.119293).
- Drawing no. 1H5-15-00810 dated 09.10.1995
(Annexed to the certificate DEMKO No. 97D.122159).
- Drawing no. 1H5-15-00805 dated 09.10.1995
- Drawing no. 1H5-15-00808 dated 21.02.1997
(Annexed to the certificate DEMKO No. 97D.123302).

One copy of all documents is kept in CESI files.