



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

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

**PTB 00 ATEX 1018**



(4) Equipment: Measuring transducer

(5) Manufacturer: ABB Automation Products GmbH

(6) Address: Schillerstraße 72, D-32425 Minden

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment 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 the confidential report PTB Ex 00-19123.

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

**EN 50014:1997**

**EN 50018:1994**

**EN 50284:1999**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

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

II 1/2 G EEx d IIC T6

Zertifizierungsstelle Explosionsschutz

Braunschweig, March 13, 2000

By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



(13)

## SCHEDULE

(14)

### EC-TYPE EXAMINATION CERTIFICATE PTB 00 ATEX 1018

(15) Description of equipment

The measuring transducer MV.. is a device used to transform pressure or differential pressure into a standardised electrical signal. It comprises the transducer front part with the compartment housing the measuring electronics and terminals, which is designed to type of protection "flame-proof enclosure", and the measuring element of which different versions are available. The electronics compartment and the screw connected measuring element together form one structural unit.

#### Technical data

Version:	HART	Field bus
Operating voltage:	$U_B \leq 55 \text{ V DC}$	$U_B \leq 36 \text{ V DC}$
Output signal:	4 ... 20 mA	14 mA

Measuring elements:

Differential pressure elements:

$MB \geq 10 \text{ mbar} \dots \leq 20 \text{ mbar}$ ,	max. perm. PN 410 bar
$MB \geq 100 \text{ mbar}$ ,	max. perm. PN 410 bar
$MB \leq 10 \text{ mbar}$ ,	max. perm. PN 6 bar

Pressure elements:

$MB \geq 2.5 \text{ bar} \dots \leq 40 \text{ bar}$
$MB \geq 100 \text{ bar} \dots \leq 620 \text{ bar}$

(16) Test report PTB Ex 00-19123

(17) Special conditions

none:

additional conditions for safe use:

#### **Connection**

1. Connection of measuring transducer MV.. shall be by means of suitable cable entries and conduit systems, which meet the requirements of EN 50018, sections 13.1 and 13.2, and for which a separate examination certificate has been issued.

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2. Plain-type cable entries (heavy-gauge conduit thread) and sealing plugs must not be used. When a conduit entry approved for this purpose is used for connecting the measuring transducer MV.., the required sealing device shall be provided immediately at the housing.
3. Any openings that are not used shall be closed off as required in EN 50018, section 11.9.
4. The connecting cable of the measuring transducer MV.. shall be of the non-detachable type and shall be installed so as to adequately protect it against damages.

The above safety notes have to accompany each device in a suitable form.

### Ambient temperature

The measuring transducer MV.. may be used within an ambient temperature range of -20 °C and +75 °C.

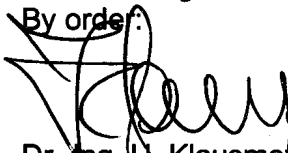
(18) Essential health and safety requirements

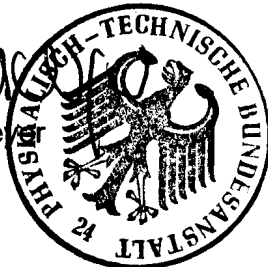
Covered by the above standards.

Zertifizierungsstelle Explosionsschutz

Braunschweig, March 13, 2000


By order:

  
Dr.-Ing. U. Klausmeier  
Regierungsdirektor



**1st SUPPLEMENT**  
according to Directive 94/9/EC Annex III.6  
**to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1018**  
**(Translation)**

Equipment: Measuring transducer MV..

Marking:  II 1/2 G EEx d IIC T6

Manufacturer: ABB Automation Products GmbH

Address: Schillerstraße 72  
D-32425 Minden

Description of supplements and modifications

1. The field of application of the equipment is extended to a minimum ambient temperature of -40 °C.
2. The conductor barrel for the differential pressure measuring elements will alternatively be of the split type; there will be a welded connection.
3. The relative threaded joint in pressure measuring element  $\leq$ PN40 bar (joint B to drawing 2-9157 X1 (2) ) will alternatively be designed as a cylindrical joint (joint D to drawing 2-9157 X5 (4) ).

Test report: PTB Ex 00-10109

Zertifizierungsstelle Explosionsschutz

By order

In the absence of Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



Braunschweig, July 24, 2000

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

## 2. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1018

(Translation)

Equipment: Measuring transducer MV..

Marking:  II 1/2 G Ex d IIC T6

Manufacturer: ABB Automation Products GmbH

Address: Schillerstraße 72  
D-32425 Minden

### Description of supplements and modifications

1. The measuring transducer serie MV 2000T gets the new type serie designation 2600T with new type designations.
2. A new variation of the transducer electronics with MODBUS 232 / MODBUS 485 communication is added.

The following connected values apply for the MODBUS – variations:

Supply voltage: 10,5 ... 30 V DC  
Supply current: <25 mA

### Applied standards

**EN 60079-0:2004**

**EN 60079-1:2004**


**EN 60079-26:2004**

Test report: PTB Ex 07-17172

Zertifizierungsstelle Explosionsschutz

Braunschweig,, 2007-05-31

By order:



Dr.-Ing. U. Klausmeyer  
Oberregierungsrat

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