



Translation

EC-Type Examination Certificate

(1)

(2)

**- Directive 94/9/EC -
Equipment and protective systems intended for use
in potentially explosive atmospheres**

(3)

DMT 01 ATEX E 012

(4)

Equipment: Control-Valves Type FY 290--***-** / FY 301-**-***-****

(5)

Manufacturer: smar Equipamentos Industriais Ltda

(6)

Address: BR 14160 -000 Sertaozinho-SP (Brazil)

(7)

The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8)

The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council 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 test and assessment report BVS PP 01.2007 EG.

(9)

The Essential Health and Safety Requirements are assured by compliance with:

EN 50014:1997+A1-A2 General requirements
EN 50018:1994 Flameproof enclosure 'd'
EN 50020:1994 Intrinsic safety 'i'

(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, examination and tests of the specified equipment in accordance to Directive 94/9/EC.

Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

(12)

The marking of the equipment shall include the following:

II 2G EEx d [ia] IIC T6

Deutsche Montan Technologie GmbH

Essen, dated 09. January 2001

Signed: Dr. Jockers

Signed: Dr. Dill

DMT-Certification body

Head of special services unit

(13)

Appendix to

(14)

EC-Type Examination Certificate

DMT 01 ATEX E 012

(15) 15.1 Subject and type

Valve Positioner

type FY 290-**-***-***
type FY 301-**-***-***

4 - 20 mA 2-wire interface; without /
with HART communication

= 0
= 1

without LCD-display
with LCD-display

= 0
= 1

without mounting bracket
with mounting bracket

= 0
= 1

electrical connection (certified EEx d cable glands)

1/2-514 NPT

= 0

M20x1,

= A

Pg 13,5 DIN

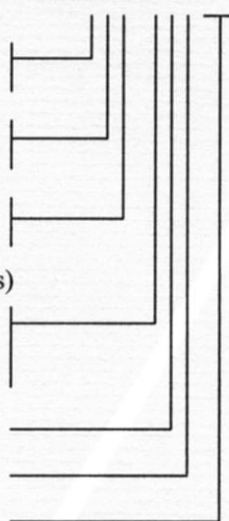
= B

type of actuator

indication gage

code- numbers/letters marking

material of the housing



15.2 Description

The Valve-Positioner type FY 290-**-***-***/ FY 301-**-***-*** is an intrinsically safe supplied apparatus comprising a flameproof light alloy or stainless steel enclosure (EC-Type Examination Certificate Nemko 00ATEX305) for single (spring return) or double acting linear motion type control valves and rotary motion control valves.

The Valve-Positioner type FY 290-**-***-***/ FY 301-**-***-*** is designated for the installation in hazardous areas requiring category 2 apparatus.

15.3 Parameters

Supply and signal circuit for the connection to an intrinsically safe 4 to 20 mA current loop

Voltage	U_i	DC	28 V
Current	I_i		93 mA
Power	P_i		700 mW
Effective internal capacitance	C_i	\leq	5 nF
Effective internal inductance	L_i		not relevant

(16)

Test and assessment report

BVS PP 01.2007 EG as of 09.01.2001



(17) Special conditions for safe use

None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 09.012001
BVS-Scha/Ar A 9900507

Deutsche Montan Technologie GmbH



DMT-Certification body



Head of special services unit