



TÜV Austria testing, inspection and certification body
accredited by the Austrian Ministry for Economic Affairs



Certificate

EC Type Examination Certificate

- (1) **EC Type Examination Certificate**
- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) No.: TÜV-A 04ATEX0009X
- (4) Product: On Site control Smartcon-ex CSCex ...
- (5) Manufacturer: Schiebel Antriebstechnik GmbH
- (6) Address: 1230 Vienna, Josef-Benc-Gasse 4
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) TÜV AUSTRIA SERVICES GMBH, notified body number 0408 in accordance with article 9 of Directive 94/9/EC of the European Parliament and Council of 23 March 1994, certifies that this equipment or protective system has been found to comply with the design and construction of equipment and protective system intended for use in potentially explosive atmospheres, given in Annex II of the Directive.
The examination and test results are recorded in confidential report 2004-ET/PZW-EX-0-000375.
- (9) Compliance with the Essential Health and Safety Requirements been assured by compliance with:
EN50014: 1997 + A1: 99 + A2: 99 EN50018: 2000 + A1: 02
EN50019: 2000
- (10) If the sign X is placed after the certificate number, it indicates that the equipment or protective system 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 or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following:



Ex II 2 G EEx de IIC T4 or T6

14.07.2004
Date of issue

Dipl.-Ing. K. Mayerhofer
Certification representative

End of validity

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TÜV Austria testing, inspection and certification body
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S c h e d u l e

(13)

(14) EC Type Examination Certificate TÜV-A 04ATEX0009X

(15) Description of equipment

The explosion proof on-site control unit (electrical unit with on-site-control) is an operating device designed for the use in or integration to explosion proof devices or environments, like e.g. electrical actuators of the ex(r) AB series.

ex (r) AB according to certificate FTZU 03ATEX0328X of the applicant.

The housing of the electrical on-site control unit contains a casing consistent with the protection class "flameproof enclosure" for mounting different electrical equipment (contactor, control boards, power supply) and a terminal compartment consistent with the protection class "increased safety", which is connected by line bushings to the flameproof enclosure body. The terminal compartment has on one side a top cover to provide access for settings as well as a mounting surface designed for maximum 3 additional explosion proof cable entries (EExe).

Another increased safety housing part is connected to the flameproof enclosure, which is intended as a connection case for further equipment. This case is also connected to the flameproof enclosure via line bushings. The mounting surface can be either directly attached to the actuator (to ensure compliance with IP-protection classes) or to a separate installation with a flange casing. This flange casing contains connections for actuators with EExe terminals as well as cable entries in EExe.

The flange casing also serves as the ground plate in case that the device is mounted on a wall or console. The cable bushings mentioned are also subject to this certification.

(15) 1 Type variations

CSC ex	Type (explosion-proof)
(.....)	spec data, z.B. CSZ1..wall mount

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(15) 2 Technical data:

$U_{nom\ max.} = 250\ V$ and $I_{nom\ max.} = 4\ A$ at a conductor cross-section of $0,5\ mm^2\ Cu$, or
 $U_{nom\ max.} = 690\ V$ and $I_{nom\ max.} = 16\ A$ at a conductor cross-section of $1,5\ mm^2\ Cu$, or
 $U_{nom\ max.} = 690\ V$ und $I_{nom\ max.} = 20\ A$ at a conductor cross-section of $2,5\ mm^2\ Cu$.

(15) 3 Ambient temperature

Lower limit: $-20^{\circ}C$
 Upper limit: refer to item (17) 3

(16) Test report

TÜV Österreich: 2004-ET/PZW-EX-0-000375

(17) Special conditions of Use

The sign "X" placed after the certificate number indicates that the product is subject to the Specific Conditions of Use:

- (17) 1 The tensile elastic limit of the screws shall be $\geq 400\ N/mm^2$.
- (17) 2 In certain design versions (depending on the mounting parts: heating, capacity) a warning sign on the required waiting time to open the housing shall be provided.
- (17) 3 Maximal permissible power loss of the installed equipment:

max. ambient temperature	temperature class T4	temperature class T6
+ 40 °C	80 W	55 W
+ 50 °C	50 W	40 W
+ 60 °C	30 W	25 W
+ 70 °C	10 W	10 W

(18) Essential Health and Safety Requirements

Satisfied by compliance with the standards mentioned.
 No further requirements.

(1) **1. SUPPLEMENT to EC - TYPE EXAMINATION**

acc. to Directive 94/9/EC Annex III figure 6

(2) Equipment or protective system intended for use in
potentially explosive atmospheres – **Directive 94/9/EC**

(3) **Nr.: TÜV-A 04ATEX 0009X**



(4) Product: On Site control Smartcon-ex CSC ex ...

(5) Manufacturer: Schiebel Antriebstechnik GmbH

(6) Address: 1230 Vienna; Josef Benc-Gasse 4

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this 1st supplement and the documents therein referred to.

Following supplement was made:

- New product variants providing an extended ambient temperature range
- Several parts / components have been adapted to fit the extended temperature range
- Aluminum alloy control lid with glued-in window to be used for ..XTR .
- Aluminum alloy intermediate ring installed between control lid and main housing
- Check if updated harmonised standards EN 60079-x are fulfilled.

(8) The examination and test results are recorded in confidential report 2009-ET/PZW-EX-0-000187.

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

EN 60079-0:2006

EN 60079-1:2007

EN 60079-7:2007

(12) The marking of the product is:



II 2G Ex de IIC T4 orT6

17.08.2009
Date of issue

Dipl.-Ing. Kurt Mayerhofer
Certification representative

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End of validity

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Schedule

(13)

(14) 1. Supplement to EC – Type Examination Certificate TÜV-A 04ATEX0009X

(15) **Description of equipment**

The explosion proof on-site control unit (electrical unit with on-site-control) is an operating device designed for the use in or integration to explosion proof devices or environments, like e.g. electrical actuators of the ex(r) AB series.

The housing of the electrical on site control unit contains a casing consistent with the protection class "flameproof enclosure" for mounting different electrical equipment (contactor, control boards, power supply) and a terminal compartment consistent with the protection class "increased safety", which is connected by line bushings to the flameproof enclosure body. The terminal compartment has on one side a top cover to provide access for settings as well as a mounting surface designed for maximum 3 additional explosion proof cable entries (Ex e).

Another increased safety housing part is connected to the flameproof enclosure, which is intended as a connection case for further equipment. This case is also connected to the flameproof enclosure via line bushings. The mounting surface can be either directly attached to the actuator (to ensure compliance with IP-protection classes) or to a separate installation with a flange casing. This flange casing contains connections for actuators with Ex e terminals as well as cable entries in Ex e.

The flange casing also serves as the ground plate in case that the device is mounted on a wall or console. The cable bushings mentioned are also subject to this certification.

Type variations

CSC ex



Not - ex relevant variants

ex relevant variants:

XTR extended temperature range (-50°C to +85°C)

XTR CSZ1 extended temperature range with control cassette

Temperature class

T4 or T6 according to table in special conditions: item 17.4.

Technical data:

Electrical Data:	
U _{nom max}	250 V and I _{nom max.} = 4 A at a conductor cross-section of 0,5mm ² Cu (*)
U _{nom max.}	690 V and I _{nom max.} = 16 A at a conductor cross-section of 1,5mm ² Cu (*)
U _{nom max.}	690 V and I _{nom max.} = 20 A at a conductor cross-section of 2,5mm ² Cu (*)
Rated current I _n	acc. type plate
Rated power P _n	acc. type plate

*) acc. type plate

Explosion protection:	
Equipment group	II
Equipment category	2 G
Type of ignition protection	Ex de
Temperature class	T4 or T6 (according to item 17, „Special conditions of use“)
Explosion group	IIC
standard ambient temperature T _{amb.} :	-20°C to +70°C
extended ambient temperature T _{amb ext.} :	-50°C to +85°C (CSC ex XTR; CSC ex XTR CSZ1)
humidity:	15 - 90 %
equipment protection:	IP 67

Description of changes

New product type variants have been added: CSC ex XTR; CSC ex XTR CSZ1.
 These variants are available for extended values of the permissible ambient temperatures.

The explosion-proof components used (terminal blocks, cable glands, blanking glands) are approved for the extended ambient temperature range.
 Other non-metallic components of the local control (O-rings, gaskets, stickers) have been adapted to the extended ambient temperature range.

To withstand the extended temperatures, the new types have the aluminum alloy control lid with borosilicate glass glued in.

Furthermore, in new variants, an intermediate ring made of aluminum alloy (ref. CSC 0125) can be installed between the control lid and the main housing in order to increase the internal volume. The intermediate ring has identical cylindrical gaps as the original cover. The fastening screws of the lid are extended accordingly and guided by the holes of the intermediate ring.

All other technical data remain unchanged.

This extension does not influence the explosion protection.



(16) **Test report**

2009-ET/PZW-EX-0-00187

(17) **Special conditions of Use**

The sign "X" placed after the certificate number indicates that the product is subject to the Specific Conditions of Use.

- (17.1) The tensile elastic limit of the fastening screws for Ex d housing must be at least 400 N / mm².
- (17.2) In certain design versions (depending on the mounting parts: heating, capacity) a warning sign on the required waiting time to open the housing shall be provided.
- (17.3) The explosion-proof components used (terminal blocks, cable glands, blanking glands) must be approved for the extended ambient temperature range.
- (17.4) Maximal permissible power loss of the installed equipment:

Standard model CSC ex

max. ambient temperature	temperature class T4	temperature class T6
+ 40 °C	80 W	55 W
+ 50 °C	50 W	40 W
+ 60 °C	30 W	25 W
+ 70 °C	10 W	10 W

New model CSC ex XTR (*)

max. ambient temperature	temperature class T4	temperature class T6
+ 40 °C	140 W	55 W
+ 50 °C	100 W	40 W
+ 60 °C	80 W	25 W
+ 70 °C	60 W	10 W
+ 80 °C	40 W	--
+ 85 °C	30 W	--

(*) New ambient temperature table added

Routine test

The test pressure for the routine tests of the XTR types is 23 bar. The reference pressure is 15.3 bar. The test pressure for the routine tests of the standard types is 14 bar. The reference pressure is 9 bar.

(18) **Essential Health and Safety Requirements**

Covered by application of above mentioned standards.
No further requirements.