

(1) EU-Type-Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



- (3) **Certificate Number** TÜV CY 23 ATEX 0206923 X **Issue 02**
- (4) for the equipment: Pressurized cabinets type: QSIT***/**, QSITD***/**, QSIM***/**
- (5) of the manufacturer: **Quasar Service S.r.l.**
- (6) Address: Piazza Pontida, 28, 24122 Bergamo (BG), Italy
- Order number: 0206923
- Date of issue: 2025-02-27

- (7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EU-Type-Examination Certificate and the documents therein referred to.
- (8) TÜV CYPRUS Ltd, notified body No. 2261 in accordance with Article 17 of the Council Directive of 2014/34/EU of February 26, 2014, certifies that this equipment or protective system 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 No. 25 0206923.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- | | | |
|----------------------------|-------------------------|---------------------------------|
| EN IEC 60079-0:2018 | EN 60079-2:2014 | EN 60079-2:2014/AC:2015 |
| EN 60079-11:2012 | EN 60079-25:2010 | EN 60079-25:2010/AC:2013 |
- (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 EU-Type-Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment which are not covered by this certificate.
- (12) The marking of the equipment or protective system must include the following:



II 2(1 or 2)G Ex ia pxb [ia Ga or ib Gb] IIB or IIB+H₂ or IIC T6...T3 Gb or II 2(1 or 2)G Ex pxb [ia Ga or ib Gb] IIB or IIB+H₂ or IIC T6...T3 Gb
 II 2(1 or 2)D Ex ia pxb [ia Da or ib Db] IIIA or IIIB or IIC T85°C...T200°C Db or
 II 2(1 or 2)D Ex pxb [ia Da or ib Db] IIIA or IIIB or IIC T85°C...T200°C Db
 I M2(M1 or M2) Ex ia pxb [ia Ma or ib Mb] I 150°C Mb or I M2(M1 or M2) Ex pxb [ia Ma or ib Mb] I 150°C Mb

TÜV CYPRUS Ltd (TUV NORD Group),

The head of the notified body,

D. Demosthenous

Accredited by CYS-CYSAB
 Certificate No. C 004-3



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(13) SCHEDULE

(14) EU-Type-Examination Certificate No. TÜV CY 24 ATEX 0206923 X Issue 02

(15) Description of equipment

The pressurized cabinets type QSIT**/** and QSITD**/** and QSIM**/** are designed in type of protection pressurised enclosure, with level of protection “pxb”, EPL Gb and Db and Mb. Cabinets type QSIT**/** are intended for use in places with an explosive gas atmosphere, cabinets type QSITD**/** are intended for use in places with an explosive dust atmosphere, cabinets type QSIM**/** are intended for use in mines susceptible to firedamp.

The pressurised cabinet consists of a metallic enclosure, which is the main volume and can contain electrical and non-electrical equipment, it is made of steel panels, equipped with one or more doors, and with optional windows. A pressurization system is used to control and verify the minimum internal overpressure, to perform the purging of the enclosure, to manage the pressurization by leakage compensation and to energize / switch off the equipment and devices inside the cabinet. The cabinet can be equipped with an electro-mechanical pressurization system, which is composed of a flameproof enclosure with separately ATEX certified associated apparatuses and intrinsically safe pressure switches located in hazardous area. The cabinet can be equipped, as an alternative, with a separately ATEX certified pressurization system from a third-party manufacturer.

The allowed protective gas is instrumental compressed air or inert gas, as specified in the marking plate. The maximum internal free volume is from 0.07 m³ to 10 m³. The degree of enclosure protection according to EN 60529 is IP4X minimum for level of protection “pxb” (declared by the manufacturer).

The pressurised cabinet may contain an internal source of release of flammable substance.

The incorporation of explosion protected electrical and non-electrical equipment and apparatus, with their own certificate, is allowed according to the manufacturer documents.

The enclosure can be fitted with ATEX certified air conditioner(s) and also for gas analyser.

The current issue 02 includes the following modification:

- For the cabinet with limited internal release of a gas or liquid: addition of leakage compensation.

Type code identification

This certificate covers the following pressurized cabinets: QSIT**/** and QSITD**/** and QSIM**/**. The asterisks in this document are used in place of one or more optional character(s) concerning additional information about the pressurized cabinet as specified in the following table:

QSIT QSITD QSIM	***	*	*	QSIT: external gas explosive atmosphere QSITD: external dust explosive atmosphere QSIM: use in mines susceptible to firedamp
				Volume (cubic meters multiplied by 100) Range: from 7 to 1000
				A = Quasar pressurization system * B = Pepperl+Fuchs pressurization system C = Stahl pressurization system D = Bartec pressurization system E = Expo pressurization system F = Gonnhaimer pressurization system
				X = internal dilution Y = with compound-filled cable entries * XY = both options

Note: for QSIM only code "A" and "Y" are applicable.

Ratings:

Maximum rated voltage	11 000 V
Maximum internally generated voltage	24 kV r.m.s.
Maximum controlled voltage	11 kV r.m.s. – 1.5 kV d.c.
Maximum rated current	10 000 A
Maximum controlled current	4 000 A
Maximum controlled power	10 000 kW - kVA
Maximum dissipated power	5 000 W
Frequency	Up to 62 Hz
Protective gas	Air or Inert gas (density equal to air $\pm 10\%$)

Parameters related to safety:

Supply pressure of protective gas	1 to 8 bar
Maximum internal overpressure	13 mbar
Minimum overpressure in service	0.5 mbar
Maximum leakage rate	3 x internal volume (in m ³ /h)

Allowable ambient temperature range:

T.amb.: $-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ for T6/85°C or T5/100°C
 $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ for T4/135°C or T3/200°C
 $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ for Gr. I 150°C

Warning labels (when applicable, according to manufacturer documents and use and maintenance manual):

"Warning - Pressurized enclosure".

"Warning - Do not open when an explosive atmosphere may be present".

"Warning - Power shall not be restored after the enclosure has been opened until combustible dust accumulations within the enclosure have been removed".

"Warning - Do not open any doors or covers for 30 minutes after removing power".

"Warning - This enclosure contains inert gas and may be an asphyxiation hazard".

"Warning - This enclosure contains inert gas and may be an asphyxiation hazard. This enclosure also contains a flammable substance that may be within the flammable limits when exposed to air".

"Warning - Batteries are located inside this enclosure. Do not open when an explosive atmosphere is present".

"Warning - This pressurized enclosure contains a battery which remains connected after the external power has been isolated. Consideration should be given to the removal of the battery if the enclosure is to remain unprotected by Ex p for a significant time".

"Warning - Batteries in this pressurized enclosure require routine maintenance. See instructions".

(16) Test documents are listed in the test report No. 25 0206923

Routine tests:

The manufacturer must perform the following required routing tests:

- The performance of the safety devices provided with the pressurised enclosure shall be verified.
- The leakage of protection gas shall be tested as specified in clause 16.3 of EN 60079-2:2015.
- In case of presence of internal source of release, the containment system shall be tested as specified in clause 16.8 of EN 60079-2:2015.

(17) Special conditions for safe use

- The user must follow the safety instructions and take all necessary precautions before bypassing the pressurisation alarm system.
- User shall connect, on intrinsic safety terminal strip, only equipment which comply with the electrical parameters of the associated intrinsically safe apparatus shown in the safety instructions document.
- The user shall comply with the special conditions of use related to separately certified equipment, incorporated in the pressurised cabinet according to the manufacturer documents.

(18) Essential Health and Safety Requirements

This EU type-examination certificate covers only the Essential Health and Safety Requirements related to the Directive 2014/34/EU. No additional ones.