

SQLS Product Data Sheet

ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

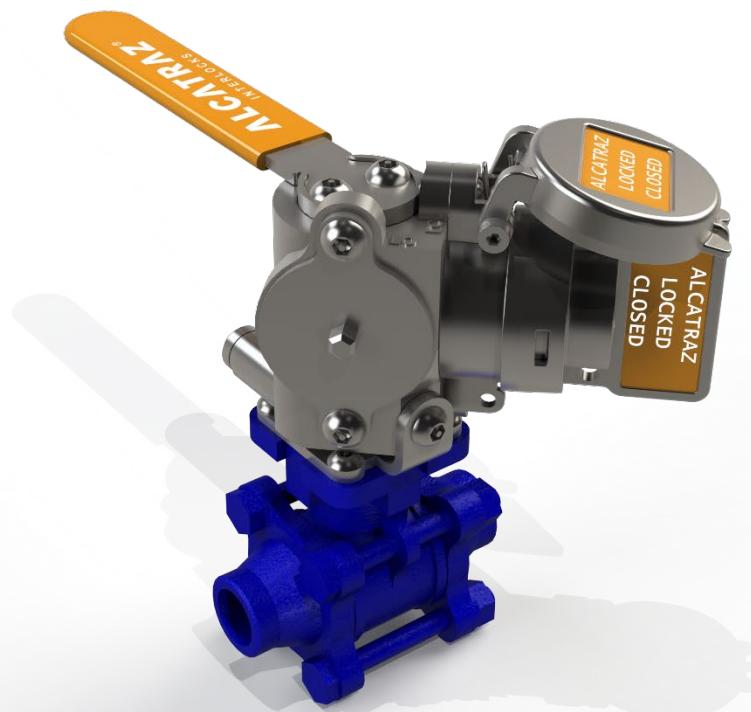
Rev.: 2 Status: Final

Date: 15-04-2024

Vendor Document Nr.: ALC-PDS-QLS-LC03

Product Data Sheet Integral Interlocks

SQLS Quarter Turn Interlock LC



| | | | | | |
|-----|------------|------------|----------|----------|-------------|
| 2 | 15-04-2024 | CY | DK | HB | Final |
| Rev | Date | Originator | Reviewed | Approved | Description |
| | | Alcatraz | Alcatraz | Alcatraz | |

SQLS Product Data Sheet

ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

INDEX

| | |
|--|---|
| 1. Product Standard Features | 3 |
| 2. Product Data Sheet | 4 |
| 3. SQLS exploded view on Ball Valve locked closed | 5 |
| 4. SQLS: General Arrangement drawing locked closed | 6 |
| 5. Summary Of Our Safety Integrity Steps | 7 |

SQLS Product Data Sheet



Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

1. PRODUCT STANDARD FEATURES

SQLS Features

- ✓ Intergraded 90-degree end stops
- ✓ Ergonomic lever
- ✓ Mechanically programmed key codes
- ✓ Encapsulated lock portion preventing ingress & contamination
- ✓ Bespoke nameplate / tagging
- ✓ Compact design
- ✓ Tamperproof mounted solutions
- ✓ Interlocked closed position
- ✓ Alcatraz 5 step safety integrity design

Operational Keys

- ✓ Mechanically programmed keys
- ✓ Unique coding assigned
- ✓ Bespoke nameplate / tagging
- ✓ ASTM E208 25 metre drop test approved
- ✓ Encapsulated key housing

Installation

- ✓ Cold work permit for installation
- ✓ No modification to host equipment
- ✓ Bespoke mounting bracket to suit host application
- ✓ Bespoke drive bush adaptor to suit host application
- ✓ Tamperproof fixings used throughout

Key Options

- ✓ Alcatraz can supply the following key options.
- ✓ **Replacement** key kit
- ✓ **Spare** key
- ✓ **Group** key
- ✓ **Master** key
- ✓ **Commissioning** key
- ✓ All the above are suitable for our complete product range.

A **SQLS** interlock can be mounted onto all host valves with a valve stem flat to flat dimension <12mm

Above these sizes a M or L solution would be the suited Alcatraz application.

A **Group** key would be used within a dedicated zone, system, or process.

A **Master** Key allows an end client to operator regardless to product type, process logic situation all the Alcatraz products.

A **Commissioning** Key is used during the construction / commissioning phase of a project.

Ensuring the programmed sequence logic does not interfere with steam blowing, flushing or leak testing activities.

SQLS Product Data Sheet

ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

2. PRODUCT DATA SHEET

Dimensions SQLS

| Dimension | |
|----------------------------|------------------|
| Length (mm) | 90 |
| Width (mm) | 131 |
| Height (mm) | 73 |
| Mass of Interlock (kg)* | 1,23 |
| Lever sizes * | Standardly 126mm |
| Bespoke sizes possible | |
| Max. valve stem width (mm) | 12,00 |

* Not including bracket, adaptor & lever

Material Grades

| Material Grades | |
|---------------------|----------|
| Interlock housing | SS 316 |
| Internal components | SS 316 |
| Bracket | SS 316 |
| Adaptor | SS 316 |
| Lever * | SS 316 |
| Operational Key | SS 316 |
| Tag plates | RESOPAL® |

* AISI 304 levers available upon request

Certificate & Standards

Certificate & Standards

| | |
|-------------------|--|
| Product | 2.1 |
| Material Cert.* | |
| Electro Polishing | ASTM B912-02 ISBN 978-2-87997-310-4 |
| Fire Test | ANSI / API 607 |
| ISO | ISO 9001 2015 |
| Atex | EU 2014/34/EU Atex Declaration of Conformity |

* 3.1 material certificate available upon request

SQLS Product Data Sheet

ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

3. SQLS EXPLODED VIEW ON BALL VALVE LOCKED CLOSED

Lever



Interlock & Lock Portions



Bespoke Adaptor



Bespoke Bracket



Host Valve

SQLS Product Data Sheet

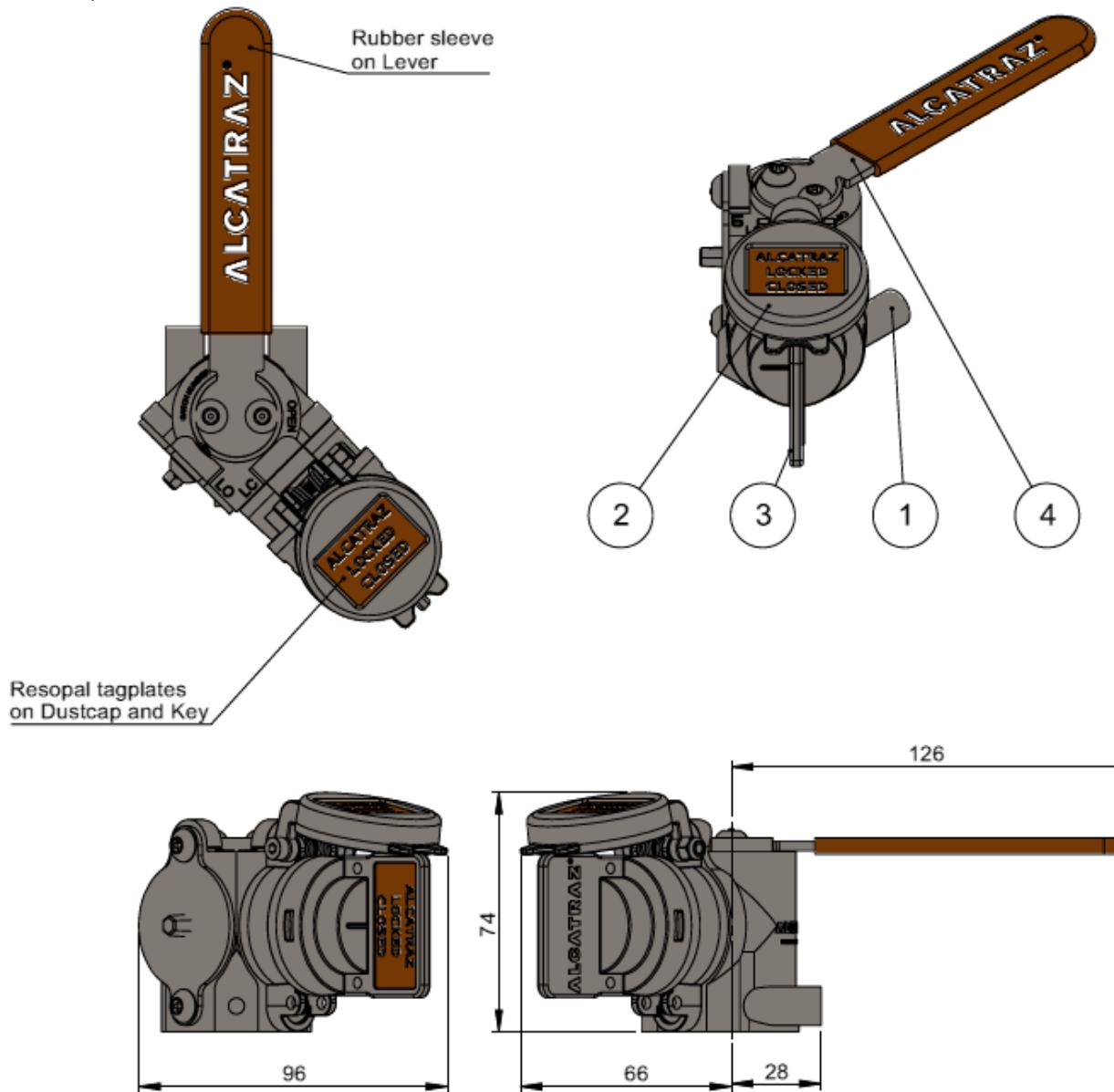
ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

4. SQLS: GENERAL ARRANGEMENT DRAWING LOCKED CLOSED



Bill of Materials

| Pos | Description | Material |
|-----|---|---------------------------|
| 1 | Multi-turn main unit | SS 316 – Electro Polished |
| 2 | Lock portion including dust cap | SS 316 – Electro Polished |
| 3 | Key | SS 316 – Electro Polished |
| 4 | Lever | SS 316 |
| 5 | Lever cover | PVC |
| * | Lever lengths standardly 126mm, but can be supplied bespoke | |

SQLS

Product Data Sheet

ALCATRAZ®
INTERLOCKS

Alcatraz Doc. No.: ALC-PDS-QLS-LC03

Rev.: 2 Status: Final

Date: 15-04-2024

5. SUMMARY OF OUR SAFETY INTEGRITY STEPS

| Alcatraz Integrity Step | Action | Purpose |
|-------------------------|--|---|
| Step 1 | Insert operational key into key lock portion (LP) in a linear action | First stage linear action, to confirm the Mechanically Programmed Key Codes |
| Step 2 | Rotation of engaged operational key within lock portion (LP) | Second stage action, to engage or disengage the internal interlock input driveshaft & lock finger |
| Step 3 | Operational key encapsulates Lock Portion (LP) housing | Ensuring zero ingress or contamination into the Lock Portion coding (LP) |
| Step 4 | Key Lock Portion (LP) separates & seals lock body from any external ingress and product tampering | An extra level of defence & separation between lock portion and interlock housing internal workings. No access / zero possibility to override internal lock workings or have exposure to ingress / contamination |
| Step 5 | Two moving parts. Intergraded 90-degree end stops ISO footprint connection possibilities between Interlock & its mated valve | Minimization of moving parts Valve protection with intergraded ninety-degree end stops built within actual lock housing. Tamperproof mounting solution including fixation screws. |

**Alcatraz Mechanical Coded Key Interlock devices are in accordance to
EN ISO 14119:2013 Type-2 B.2**