

# ALCATRAZ<sup>®</sup>

## I N T E R L O C K S

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Vendor Document Nr.: ALC-PDS-MLL-02


## Product Data Sheet

### Integral Interlocks

ML-L Multi-Turn Lock Large



1	20-03-2026	CY	DK	HB	Final
Rev	Date	Originator	Reviewed	Approved	Description
		Alcatraz	Alcatraz	Alcatraz	

<h1>Multi-Turn Lock Large</h1> <h2>Product Data Sheet</h2>		
	Alcatraz Doc. No.: ALC-PDS-MLL-02	
	Rev.: 1	Status: Final
	Date: 20-03-2026	

**Index:**

- 1. Product Standard Features..... 3
- 2. Data Sheet ML-Large ..... 4
- 3. ML-Large Exploded View..... 5
- 4. GAD ML-Large (Double Keyed)..... 6
- 5. GAD ML-Large (Single Key Open)..... 7
- 6. GAD ML-Large (Single Key Closed) ..... 8
- 7. Summary Of Safety Integrity Steps..... 9

# Multi-Turn Lock Large Product Data Sheet

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## 1. PRODUCT STANDARD FEATURES

### ML-L Features

- Integral parallel splined drive-tube
- Mechanically programmed key codes
- TUV Machine Directive Key & Lock Portion
- IP64 Encapsulated Lock portion & Key preventing ingress & contamination
- Bespoke nameplate / tagging lasered onto product surfaces
- Compact design
- Tamperproof mounted solutions
- Interlocked LO / LC or Dual Positions

### Operational Keys

- Mechanically programmed keys
- Unique coding assigned
- IP64 Encapsulated key housing
- IP64 Encapsulated Lock Portion
- TUV Machine Directive Key & Lock Portion
- ASTM E208 25 metre drop test approved
- Bespoke nameplate / tagging
- Electro Polished Surface finished

### 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
- Our **ML-L** interlock can be integrated onto all host rising stem operated valves, with a spindle diameter less than Ø 85mm.
- Supplied in various Locking configurations
  - **DK** Double Keyed
  - **LO** Locked Open Only
  - **LC** Locked Closed Only

### Key Options

- Alcatraz can supply the following key options.
  - **Replacement** key kit
  - **Spare** key
  - **Group** key
  - **Master** key
- **Commissioning key**  
All the above variants are suitable for our complete product range.
- **Group key**  
Would be used within a dedicated zone, system, or process.
- **Master Key**  
Allows an end client to operate regardless of product type, process logic, situation the full Alcatraz range.
- **Commissioning Key**  
Used during the construction / commissioning phase of a project.

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## 2. DATA SHEET ML-LARGE

### Dimensions ML-L

#### Dimension

Length	(mm)	210
Width	(mm)	158
Height	(mm)	114
Mass of Interlock (kg)*		6,15
Hand wheel sizes	Various Options	
Max. valve spindle Diameter (mm)		60,00

\* Not including bracket, adaptor & hand wheel

### Certificate & Standards

#### Certificate & Standards

Product Material Cert.*	2.1
Fire Test	ANSI / API 607
ISO	ISO 9001 2015
TUV	EU Machinery Directive 2006/42/EC
IP Rating	IP64

\* 2.2 & 3.1 material certificate available upon request

### Material Grades

#### Material Grades

<b>Interlock housing</b>	SS 316L
<b>Internal Components</b>	SS 316L
<b>Operational Key</b>	SS 316L
<b>Lock Portion</b>	SS 316L
<b>Material Surface Finish</b>	ASTM B912-02 ISBN 978-2-87997-310-4
<b>Bracket</b>	SS 316L
<b>Adaptor</b>	SS 316L
<b>Hand wheel *</b>	SS 316L
<b>Hand wheel</b>	Composed Carbon Steel Coating Interpon D1036
<b>Tag plates</b>	RESOPAL®
<b>Atex</b>	EU 2014/34/EU Atex Declaration of Conformity

\* AISI 316L hand wheels in process of superseding Carbon

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INTERLOCKS

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## 3. ML-LARGE EXPLODED VIEW

Hand Wheel

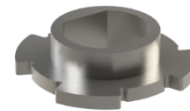


Interlock & Lock Portions



Host valve nut

Bespoke Adaptor

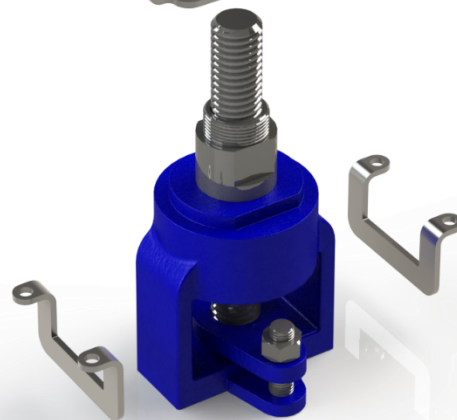


Bespoke Bracket Part 1



Host Valve

Bespoke Bracket Part 2



# Multi-Turn Lock Large Product Data Sheet

# ALCATRAZ<sup>®</sup> INTERLOCKS

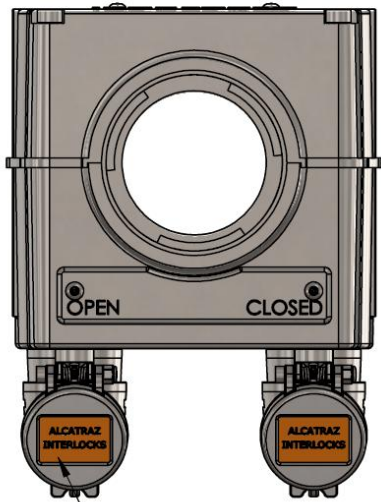
Alcatraz Doc. No.: ALC-PDS-MLL-02

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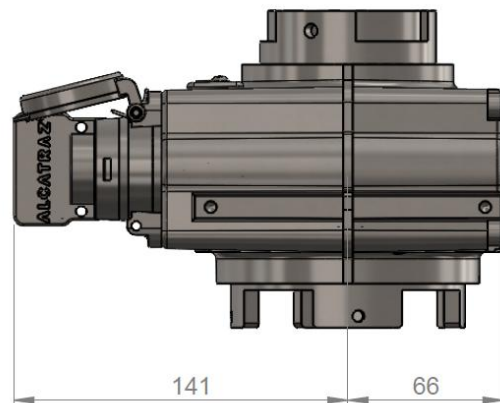
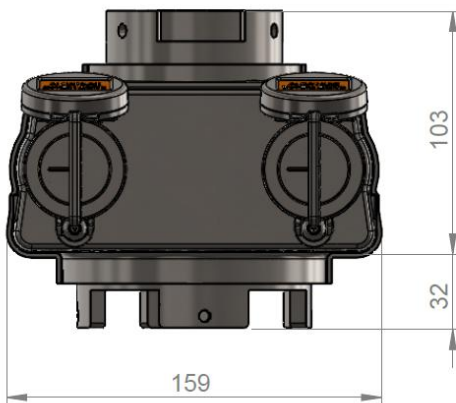
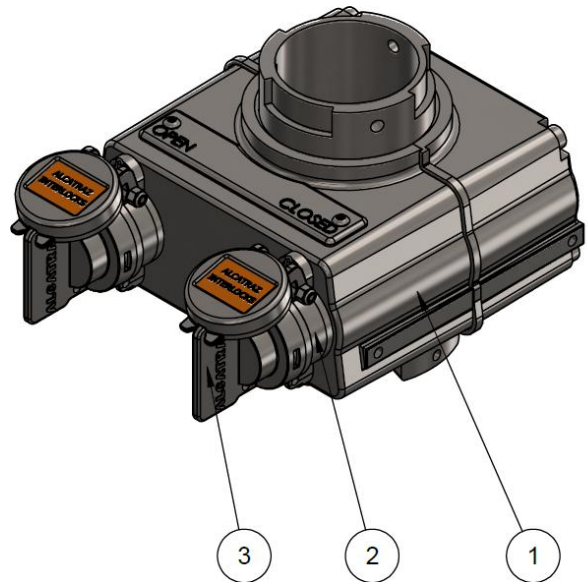
Status: Final

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## 4. GAD ML-LARGE (DOUBLE KEYED)



Resopal tagplates  
on Dustcap and Key



### 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
*	Hand wheel	Optional Sizes & Materials
*	MLL Double Keyed weight 6.15kg (HW not included)	

# Multi-Turn Lock Large Product Data Sheet

# ALCATRAZ<sup>®</sup> INTERLOCKS

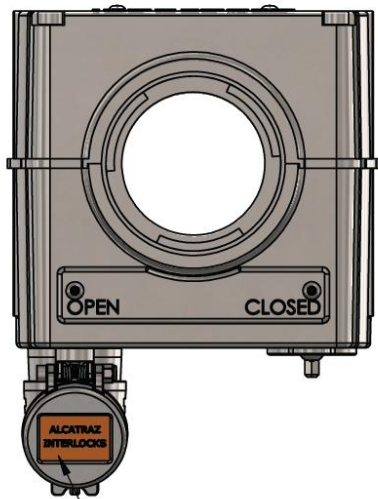
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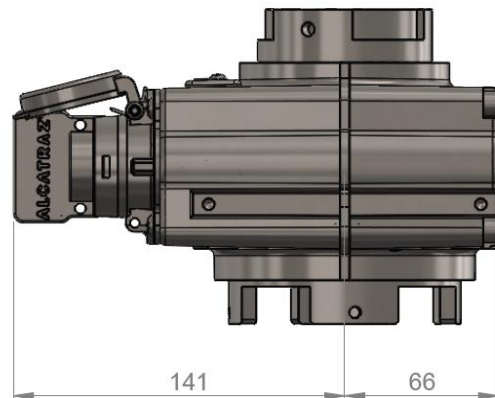
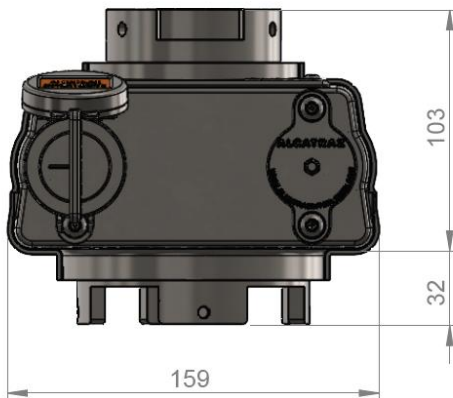
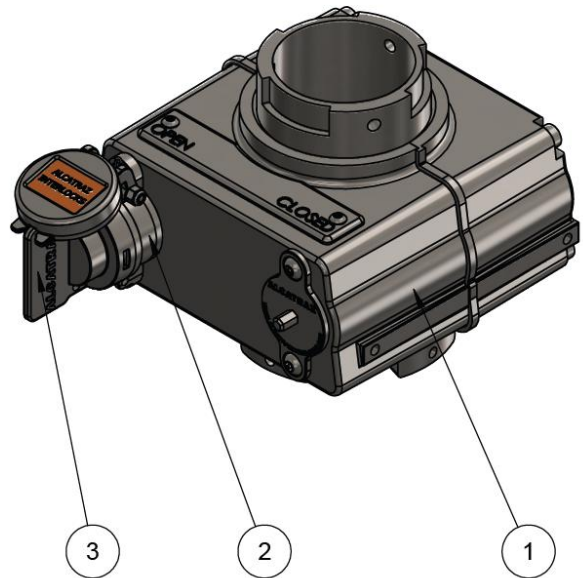
Status: Final

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## 5. GAD ML-LARGE (SINGLE KEY OPEN)



Resopal tagplates  
on Dustcap and Key



### 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
*	Hand wheel	Optional Sizes & Materials
*	MLL Single Keyed Weight 5.75kg (HW not included)	

# Multi-Turn Lock Large Product Data Sheet

# ALCATRAZ<sup>®</sup> INTERLOCKS

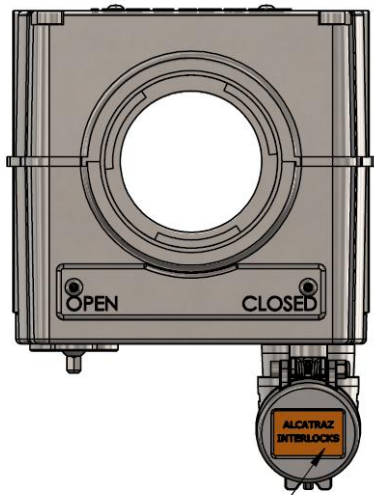
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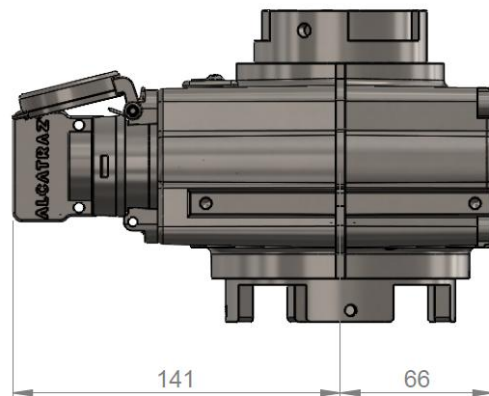
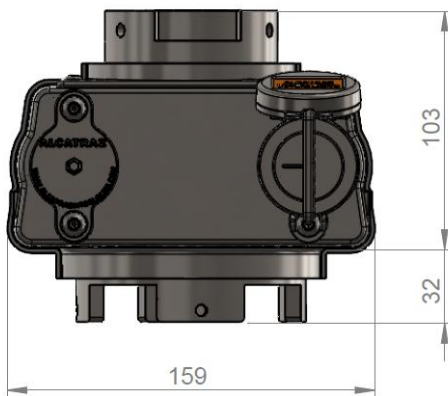
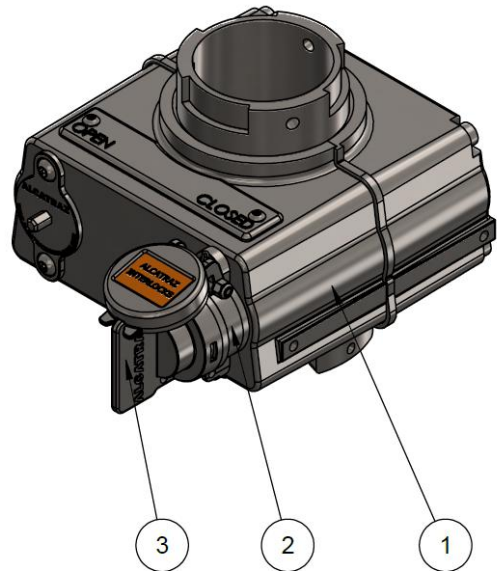
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## 6. GAD ML-LARGE (SINGLE KEY CLOSED)



Resopal tagplates  
on Dustcap and Key



### 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
*	Hand wheel	Optional Sizes & Materials
*	MLL Single Keyed Weight 5.75kg (HW not included)	

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## 7. SUMMARY OF 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 <b>Mechanically Programmed Key Codes</b>
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	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	Parallel Splined Key (PSK) connection between Interlock drive-tube & its mated assigned hand wheel	Robust mechanical connection whereby the rotational torques & forces are evenly shared across the drive tube connection and mated hand wheel.  Prevents loose handwheels and <b>HSE</b> issue. Plus, there is <b>No</b> operational forces solely focused on the hand wheel fixation screws as per all other brands.

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