

Option Pod

General

Option Pods are available to mechanically fit to either the Fortress Lok body, AmLok host units, or as a stand alone product. The Option Pods may contain either a key switch, or a combination of pushbuttons and/or indicator lamps.

IMPORTANT

This product is designed for use according to the installation and operating instructions enclosed. It must be installed by competent and qualified personnel who have read and understood the whole of this document prior to commencing installation. Any modification to or deviation from these instructions invalidates all warranties. Fortress Interlocks Ltd accepts no liability whatsoever for any situation arising from misuse or mis-application of this product. This product is not to be used as a Mains Isolator or Emergency Stop. The unit is a component to be added to a permanent electrical installation meeting the requirements of the applicable IEC/EN standards.

The voltages used within the Option Pod circuits must all be of the same type, i.e. ALL Hazardous Live or ALL Machine Extra Low Voltage.

IF YOU HAVE ANY QUESTIONS OR QUERIES OF ANY NATURE WHATSOEVER PLEASE CONTACT THE SUPPLIER WHO WILL BE PLEASED TO ADVISE AND ASSIST.

Tools and Fixings Required

Pin Hex Driver Bit (Provided with host unit)
1/4" Driver (to Suit above)
3.5mm Flat Blade Electrical Screwdriver

Mounting

If the Option Pod is to be used with a host unit, it must be connected by Fortress approved personnel, as specialist tools are required.

All Option Pods must be mounted to a flat metal plate. If the mounting plate is Aluminium, the minimum thickness is 6mm. If the mounting plate is steel, the minimum plate thickness is 3mm.

All option pods have M4 x 8 threaded holes to the rear for fixing to the mounting plate. All fixings must be used and the hole centres are shown on Fig 1.

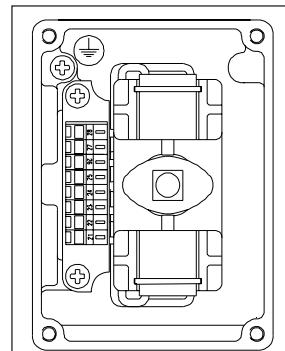
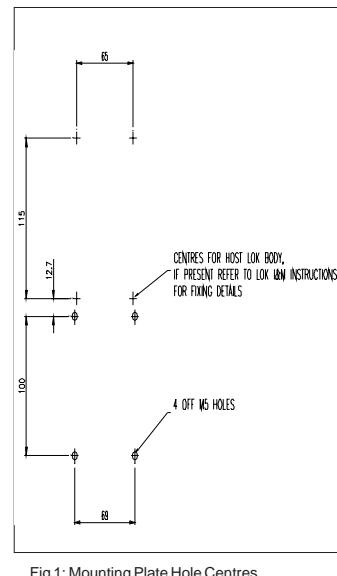


Fig 2: Internal View of Keyswitch Option Pod
(Key Free Position Shown)

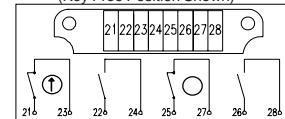


Fig 3: Wiring Diagram for the Keyswitch Option Pod

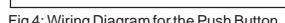


Fig 4: Wiring Diagram for the Push Button

Protection Against Environmental Influences

A lasting and correct safety function requires that the unit be protected against the ingress of foreign bodies such as swarf, sand, blasting shot, etc.

The unit is to be mounted away from the machine, or by the use of anti-vibration mountings, in order to avoid the effects of vibration, shock and bump.

Electrical Connection

1. Make sure the electrical supply is isolated. Remove the lid from the Pod by use of the tamperproof driver. Note the orientation of the cam, if fitted. Attach suitable conduit(s) via the PG13.5 cable gland(s). Unused entries should be sealed with the blanking plug supplied with the unit. Cable glands/blanking plug, of the correct size and type must be used to achieve IP66 sealing.

2. Bond both the enclosures to Earth potential via the Earth points provided. The earth wire used must be multi-stranded Yellow and Green PVC sheathed and approved to BS 6231 with conductor cross-sectional area of 2.5mm

The Earth lead must be fitted such that it will be the last to be broken if the wiring loom is pulled from the product.

3. Make the electrical connections to the machine control, referring to the information below.
The cabling for both the Pod and the host unit may then be completed through the two PG13.5 gland holes at the base of the Pod. Ensure all cables are clear from moving parts bearing in mind the position and movement of the Cam if a keyswitch is being fitted. Connect the host unit, if fitted in accordance with the installation instruction for that product.
4. Test both the host unit, if present and the Pod, for correct operation. All switch circuits are rated at 3A, 230V. Each circuit must incorporate fuse protection with a Quick-Acting (F) fuse (maximum rating 3A, 250v to IEC 127).
5. When all wiring is complete, conduct a Protective Earth Test to BS 60204, clause 20.
6. Ensure that the cam, if fitted, is still in the same orientation as at the start, otherwise positive break will not occur.
7. Replace the lid, making sure that the lid seal remains in position.

Electrical Function Test

Keyswitch Option Pod

Rotate the key fully anti-clockwise and remove from the pod. The machine should start its run down cycle. The machine must not restart until the key is returned and fully rotated clockwise.

Installation Instructions

Fortress
Interlocks

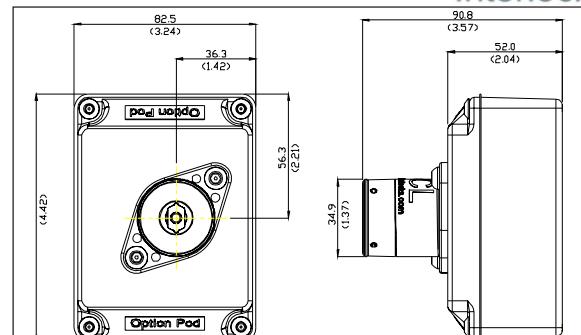


Fig 5: Dimensions of the Keyswitch Option Pod

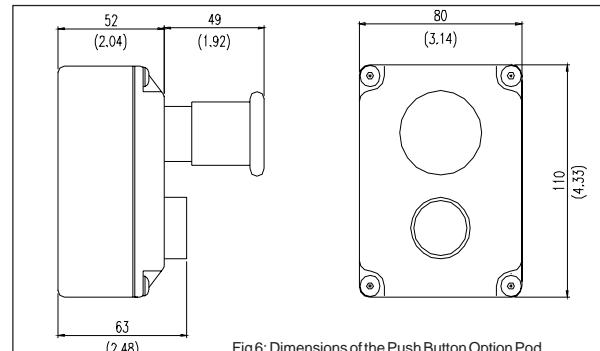


Fig 6: Dimensions of the Push Button Option Pod

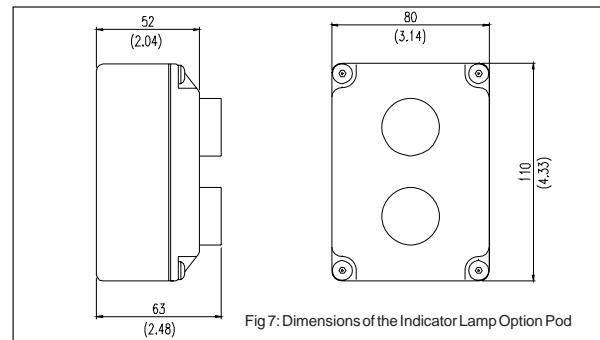


Fig 7: Dimensions of the Indicator Lamp Option Pod

Push Button Option Pod

Push the red stop button to start the machine run down. The machine must not restart until the green button is pressed and the red button reset by twisting anti-clockwise.

Service and Inspection

Regular weekly inspection of the following is necessary to ensure trouble-free, lasting operation:

- Correct switching function
- Secure mounting of components
- Debris and wear
- Sealing of cable entry
- Loose cable terminals or plug connectors

If a BL Lock assembly is used, it should be lubricated with CK Dry Powder Graphite lubricant, every 10,000 operations.

If a CL lock assembly is used, it should be lubricated with WD40 every 10,000 operations. Do not use dry lubricant in a CL

There are no user serviceable parts in the Option Pod. If damage or wear is found the whole unit must be replaced.

The pod must be replaced after 1 million switching operations

Liability coverage is voided under the following conditions:

- if these instructions are not followed
- non-compliance with safety regulations
- installation and electrical connection not performed by authorised personnel

Disposal

This product does not contain any certified hazardous materials so should be disposed of as industrial waste.

Environmental Specification

Environment Type Indoor
Max. Altitude 2000m
Ambient Temperature -5°C to +40°C
Maximum Relative Humidity 80%@<=31°C
50%@40°C

Transient Overvoltages Installation

Category III

Pollution Degree (IEC 664)
Degree 2
Ingress Protection IP66

The manufacturer reserves the right to modify the design at any time and without notice. This guide should be retained for future reference.

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Le fabricant se réserve le droit de modifier la conception toutefois sans préavis. Ce guide doit être conservé comme document de référence.

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degredé pollution (CEI 664) Deg
III Catégorie III
sur parasites alimentation

La machine ne doit pas pouvoir démarrer si l'urgence est déclenchée. L'alarme peut être provoquée par un bouton rouge remettant à zéro le bouton vert qui n'est pas actionné dans les deux dernières minutes.

The figure consists of two parts. The left part is a top-down view of a rectangular metal plate. It features two large circular holes in the center, one above the other. At each corner, there is a small circular cutout. Four mounting holes are located at the corners of the rectangle. Dimension lines indicate: a total width of 80 (3.14) mm, a height of 10 (4.33) mm, and a distance of 3.14 mm between the centers of the two circular holes. The right part is a side view of a bracket assembly. It shows a vertical rectangular base with a horizontal slot on its left side. A vertical tab extends from the top of the base. A horizontal bracket is attached to the top of the base, extending to the right. Dimension lines indicate a total height of 63 (2.48) mm and a thickness of 52 (2.04) mm for the base.

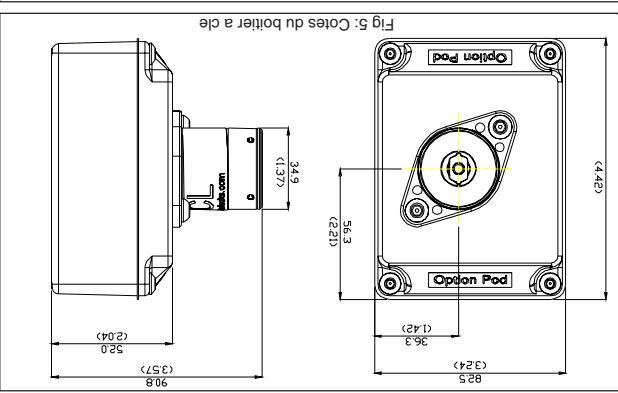
Figure 4 : Schéma de calibrage pour le bouton poussoir. Si ces instructions ne sont pas utilisées, l'orsque la clé de décalage est terminée, exécuter un test de la protéction salon BS 6024. Lorsque la clé de décalage est terminée, exécuter un test de la protection salon BS 6024. Si la réglementation de sécurité n'est pas suivie, si la réglementation de sécurité n'est pas respectée, si l'instruction au bouton n'est pas respectée, pas effectuée par un personnel habilité, si les tests fonctionnels ne sont pas réalisés.

Ce produit ne contient aucun matériau dangereux certifié ainsi devrait être débarassé en tant que déchet industriel.

Les interruptions fonctionnelles peuvent entraîner des dommages importants à la machine ou à la personne. Pour éviter tout risque, il faut toujours éteindre la machine et débrancher la fiche de la prise électrique avant d'intervenir sur elle.

The image contains two technical drawings of mechanical components. The left drawing shows a rectangular base plate with four circular cutouts and four mounting holes at the corners. Dimensions are given as 110 (4.33) for the height, 80 (3.14) for the width, and 49 (1.92) for the distance between the inner edges of the side walls. The right drawing shows a vertical assembly consisting of a base section and a top section. The base has a height of 52 (2.04) and a width of 49 (1.92). The top section has a height of 63 (2.48) and a width of 49 (1.92). A small triangular cutout is located at the bottom right corner of the top section.

The diagram illustrates the LAMPE scheme. On the left, a box labeled "LAMPE" contains a terminal block with four pins: 21, 22, 12, and 11. Pin 21 is connected to the "Bouton pousser" (push button) via a dashed line. Pin 22 is connected to the "Bouton dépressif" (release button) via a dashed line. Pin 12 is connected to the "Relais de remplacement" (replacement relay) via a dashed line. Pin 11 is connected to the "Relais d'interlocuteur" (interlock relay) via a dashed line. A vertical line connects pin 11 to the "Relais d'interlocuteur" (interlock relay). On the right, a box labeled "START/STOP" contains a terminal block with three pins: 14, 13, and 22. Pin 14 is connected to the "Bouton pousser" (push button) via a dashed line. Pin 13 is connected to the "Bouton dépressif" (release button) via a dashed line. Pin 22 is connected to the "Relais de remplacement" (replacement relay) via a dashed line.



La partie de la commutation hebdomadaire des points d'ancrage est nécessaire pour assurer un fonctionnement double sans défaillance : on munit le la communauté d'échange de deux partenaires qui échangent régulièrement leur rôle de fournisseur et de consommateur. Les deux partenaires sont donc en état de faire face à toute demande supplémentaire de l'un ou l'autre.

Instructions D'Installation

Généralités

Les boîtier responsables existent en versions comparables mecaniquement avec les Amlok4 solts Ajusto-Lok. Ils peuvent remplacer soit un bouton possessor associé à un voyant.

Ce boîtier appporte des fonctionnalités complémentaires, il est livré non câblé.

Montage

Si l'option pod doit être fixée conjointement à un système hôte il doit être commencé par la personne ayant accès aux outils spécialement nécessaires.

Tous les Option Pods doivent être montés sur une plaque de métal plate. Son épaisseur doit être de 6 mm minimum si celle-ci est en aluminium. Dans le cas de la partie, ce chiffre tombe à 3 mm.

Optibot Pods ont 8 trous de fixation de 4 mm

Fig 1 : Centres De Trou De Pilotage Support

Pod opzionale

Generalità

Ci sono pod opzionali disponibili per montare meccanicamente sia l'AmLok4 sia l'AutoLok4. I pod opzionali possono contenere un interruttore oppure una combinazione di pulsanti e lampade spie. I pod opzionali forniscono se supple nientari alta macchina e non sono collegati a trunita ausiliaria quando escono dalla nostra fabbrica.

Attrezzi e fissaggi necessari

Cacciavite a croce perno esagonale (fornito con l'unità ausiliaria)
Cacciavite 1/4" (adatto al suddetto)
Chiave registrabile 25mm
Cacciavite elettrico a lama piatta 3,5mm

Montaggio

- Togliere il coperchio del pod opzionale per usare il cacciavite resistente alla corrosione.
- Notare la direzione della camma, se montata.
- Togliere qualsiasi cablaggio esistente all'interno dell'unità ausiliaria.
- Fissare il pod opzionale al gruppo ausiliario avvitando i due dadi del tubo ai fori di tenuta PG13.5 forniti con l'unità ausiliaria.

Assicurarsi che i cunei di tenuta siano usati tra la funita ausiliaria ed il pod opzionale con le estremità strette verso l'alto. Serrare i dadi del tubo assicurandosi che le due unità si alineino.

Protezione contro le influenze ambientali

Un duraturo e corretto sistema di sicurezza richiede l'unità sia protetta dall'interno di corpi estranei tipo trucioli, sabbia, pioggia, granuli ecc.

L'unità deve essere montata lontana dalla macchina o usando sistemi antivibrante per evitare gli effetti di vibrazioni, scosse ed urti.

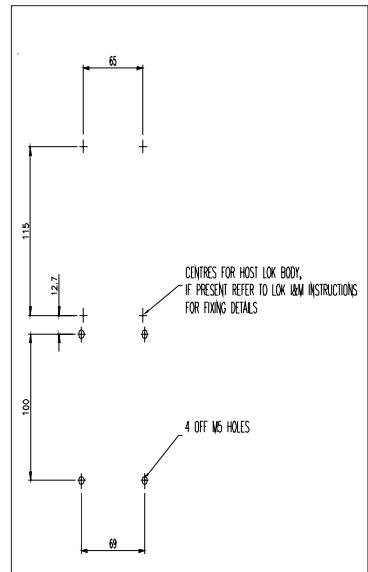


Fig. 1: Mounting Plate Hole Centres

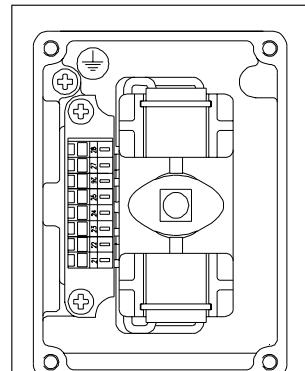


Fig. 2: Vista interna dell'interruttore a chiavi del pod opzionale

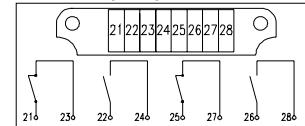


Fig. 3: Schema cablaggio per l'interruttore a chiavi del pod opzionale

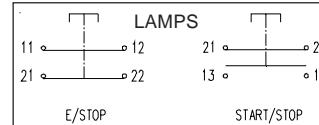


Fig. 4: Schema cablaggio per il pulsante del pod opzionale

- Effettuare i collegamenti elettrici al controllo macchina, secondo quanto descritto di seguito.

Il cablaggio sia per il pod opzionale che per l'unità ausiliaria può essere compattato attraverso i fori di tenuta PG13.5 alla base del pod.

Assicurarsi che tutti i cavi siano liberamente in movimento e collegare l'unità ausiliaria in conformità con le istruzioni di installazione per quel prodotto.

4. Provare il corretto funzionamento, sia l'unità ausiliaria sia il pod opzionale. Tutti i circuiti sono regolati a 3A, 230V. Ogni circuito deve essere dotato di protezione da fusibili ad azione rapida (F) (regolazione massima 3A, 250V secondo IEC 127).

5. Quando tutto il cablaggio è completo, eseguire una prova di terra protettiva secondo BS 60204, clausola 20.

6. Assicurarsi che la camma, se montata, sia ancora nella stessa direzione come alla partenza.

7. Sostituire il coperchio, assicurarsi che la tenuta del coperchio rimanga in posizione.

**ASSICURARSI CHE
LALIMENTAZIONE SIA
DISINERITA PRIMA DI
CONTINUARE**

Installazione Istruzioni

Prova di funzionamento elettrico

Interruttore a chiavi pod opzionale
Girare la chiave di 90° in senso antiorario e toglierla dal pod.

La macchina deve iniziare il ciclo di scarico. La macchina non deve essere riavviata finché la chiave non è reinserita.
Pulsante pod opzionale

Premere il pulsante di arresto rosso per iniziare il rallentamento della macchina o lo stop di emergenza.
La macchina non si deve riavviare finché non si preme il pulsante verde.

Manutenzione e controllo

Per assicurare un funzionamento duraturo senza guasti, controllare ogni settimana regolarmente:

- il corretto funzionamento di commutazione
- montaggio sicuro dei componenti
- i detriti a Fusura
- la tenuta di entrata del cavo
- l'attaccatura dei terminali dei cavi 0 i

Il gruppo di bloccaggio deve essere lubrificato con lubrificante CK Dry Powder Graphite ogni 10.000 operazioni.

Non ci sono parti riparabili da usare nel pod opzionale. Se si rilevano danni o usurazione, l'intera unità deve essere sostituita.

Il pod opzionale deve essere sostituito dopo:

- 1 milione di operazioni per il tipo a pulsante ed indicatore
- 30.000 operazioni per il tipo Interruttore a chiave

La copertura delle responsabilità viene invalidata alle seguenti condizioni:

- se queste istruzioni non sono seguite
- per non conformità con le norme di sicurezza
- se l'installazione ad un collegamento elettrico non sono effettuati da personale autorizzato
- se i controlli funzionali non vengono eseguiti.

11. fabbricante si riserva il diritto di modificare il progetto in qualsiasi momento senza preavviso. Questa guida deve essere considerata come riferimento per il futuro.

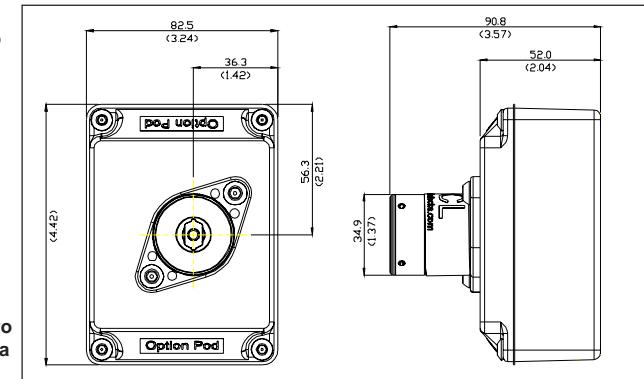
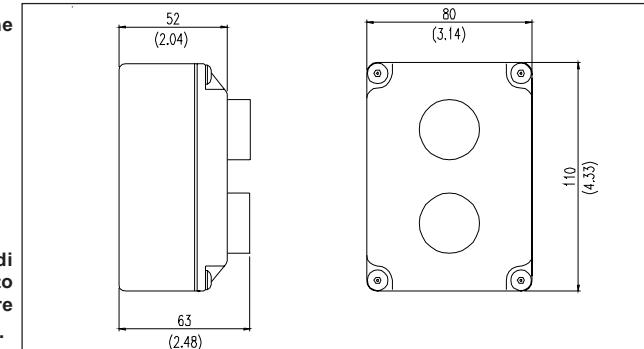
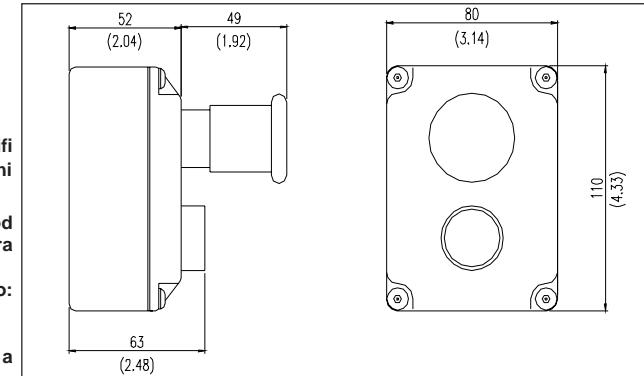


Fig. 5: Dimensioni dell'interruttore a chiavi del pod OpZionale



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