



SMITH
FLOW CONTROL LTD

SFC KEY INTERLOCKS & PROCESS MANAGEMENT SYSTEMS



SPECIALS

The range of process applications to which SFC interlocks can be applied is unlimited. As clients begin to understand the immense operational capabilities of SFC interlock systems, they often request unique solutions to specific problems.

In this section we present some examples of 'specials' we have developed to meet clients' specific operating safety requirements.

SFC are always pleased to receive a challenge to provide unique solutions to clients' individual or special problems.



SEQUENCE CONTROL UNIT



CUSTOMER PROBLEM

To permit complex variations in operating sequences on launcher/receiver systems.

SFC SOLUTION

The simplest interlock systems will normally feature a 'linear sequence'. This is where the outward 'journey' (operating steps) are mirrored by the return journey. However, from time to time, non-linear sequences are necessary. A typical example of a non-linear sequence is a pig trap procedure where double block and bleed valves control complex nitrogen purging, pressure equalisation, venting and draining.

The sequence control unit is a mechanical key issuing/control device. It is normally placed locally to the valve system. It differs from a key exchange unit in that, upon inserting a permit key, a selector knob is rotated to a fixed position before the next key is issued.

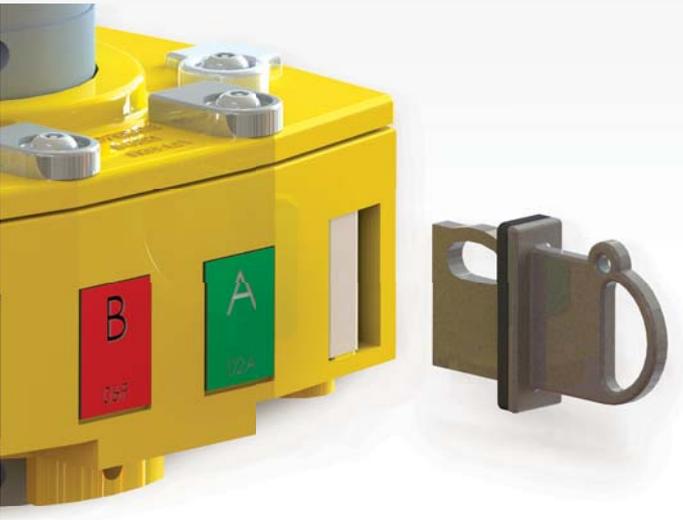
SPECIALS

SFC DUST PLUG



Removal of a key from the assembly increases the scope for the ingress of dust and dirt through the key entry aperture which can contaminate the inner workings of the lock mechanism - leading ultimately to possible seizure and malfunction.

The SFC 'Dust Plug' is a simple and highly effective solution to prevent this happening.



Key operated locking devices invariably feature a key entry aperture to facilitate locking and unlocking of the assembly.

Made from HDPE and fitted with a soft sealing aperture gasket, the SFC 'Dust Plug' is inserted by the operator to seal the key entry aperture immediately after he has removed one or the other of the operating keys coded keys from the lock assembly.

The SFC 'Dust Plug' is a tight-fitting component that positively seals the key entry aperture and will not become dislodged through vibration once properly fixed in position by the operator as he completes his scheduled work procedures.

EXPLOSION PROOF INTERLOCKED SWITCH



CUSTOMER PROBLEM

To mechanically interlock an electrically operated device, within a hazardous environment - ATEX certified.

SFC SOLUTION

Where mechanical (interlocked) control of powered equipment is required in a hazardous area, the SFC switch lock provides the perfect solution.

In this illustration our 'QL' quarter turn interlock is fitted to the switch mechanism of an II 2 G D hazardous area control switch.

A single or dual key configuration can be supplied to lock in the 'ON', 'OFF' or both positions.

Solenoid key release units are available. These are commonly used around Pig Traps to receive a 'low pressure' signal to indicate it is safe to proceed to open the door.

QL WITH PROXIMITY SWITCH



CUSTOMER PROBLEM

Additional signalling required.

SFC SOLUTION

ATEX certified proximity switches can be incorporated into all SFC interlocks to provide signals to indicate:

- A Key entry or removal
- B Valve open or closed, indicated by the removal of the key and locked in that position

'Off the shelf' proximity & microswitches are integrated with our interlocks units.



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