

Deadman Timer System for Refuelling Vehicles

Part No DBA10826

fluid transfer international

Technical Data

The Fluid Transfer Deadman Timer System takes over the switching of the pneumatic solenoid valve which in turn controls the deadman valve. A low-current handswitch feed (approximately 6mA) is generated within the Timer Unit. This switched feed is then used to control a timer circuit and is designed to "time-out" every 2.5 - 3 minutes. Flow would then stop after this period unless the operator generated a reset signal. The reset signal is generated merely by releasing and regripping the handswitch.

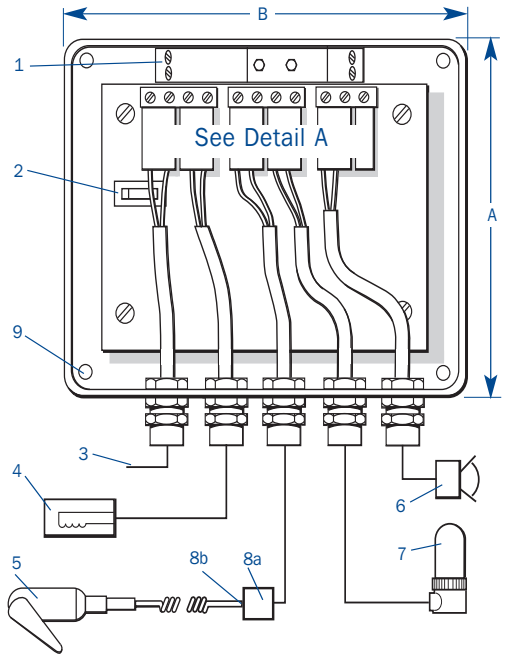
In order to avoid automatic flow shut-down in normal operation, a prompt signal is generated within the Timer system some 20 seconds before ' time-out '. This prompt signal is used to generate either an audible or visual prompt (or both) such that the operator is reminded to reset. The audible output is designed to give a continuous signal only during the prompt. Many proprietary bleepers can be configured to given an intermittent output from a continuous signal.

The visual output is designed to give an indicator lamp a continuous signal when the handswitch is made and until the prompt signal is generated. At this point the lamp will flash for the prompt period.

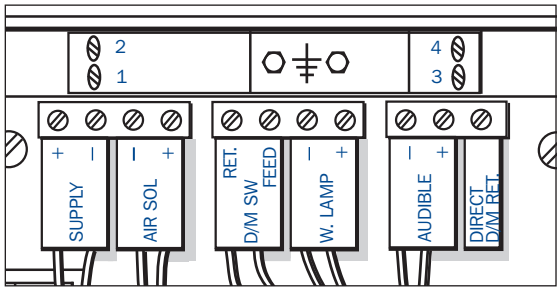
A reset signal can be generated at any time during the timer cycle whether prompted or not but the Deadman function takes priority at all times!

A 0.4 second delay is built-in to the response time to allow a reset signal to be generated without the air solenoid dropping out and the pneumatic system losing pressure.

On existing Deadman systems all existing components can be used but for ease of installation it is recommended that the Timer system low-current handswitch feed is used. Also it is recommended that the FLUID TRANSFER 11101 series Deadman Handswitch is used as the switch contacts are particularly suited to the low-current switching levels. The switch has U.L. listing.



1 Certified Shunt. Diode Safety Barrier (Optional).
2 Fuse 2 amp.
3 Supply 12-28 volts DC.
4 Solenoid Operated Pneumatic Valve (Optional) voltage to be specified.
5 Deadman Handswitch (Optional).
6 Audible Bleeper (Optional).
7 Vapour Proof Lamp 21 watts. (Optional) voltage to be specified.
8a Junction Box (not supplied). Must be water tight.
8b Cable to be strain relieved.
9 4 mounting holes Dia. 5mm.



Detail A

Notes.

- Timer Unit to be located in a dry, clean electrically safe area away from high temperatures. (Preferably in the vehicle cab).
- Unit to be installed by suitably qualified personnel. All wiring connections to be checked before powering equipment as incorrect wiring can damage the equipment.
- When Shunt Diode safety barrier is fitted it is pre-wired. Connect the Deadman Handswitch to barrier terminals 3 & 4.

Dimensions

Part	A	Height	B	Weight
Deadman Timer System 10826	136mm	95mm	172mm	0.6 Kg

Part No	Description
DBA10826	STANDARD UNIT
DBA10826-1	C/W SHUNT DIODE SAFETY BARRIER
DAA11115	D'MAN HANDSWITCH C/W SUZIE CABLE 3-17m
FT-000974	AUDIBLE BLEEPER
DB26069-G	VAPOUR PROOF LAMP C/W GREEN LENS
FT-000976	24v SOLENOID VALVE
FT-000975	12v SOLENOID VALVE
DBA10826-PCB	PCB SPARE BOARD

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The descriptions, illustrations and product references in the datasheet are for information purposes only and are not binding. (Updated February 10)

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Applications

Prevents the illicit overriding of the deadman handswitch thus preventing the operator from wandering off or becoming distracted.

Size Available

172mm x 136mm x 95mm

Features

- Supply 12 - 28 Volts.
- Can be linked to Vapour Proof Lamp (option) to provide visual prompt.
- Can be linked to Audible Sounder (option) to provide audible prompt.



Specification

The Fluid Transfer Deadman Timer System is a unique system that considerably enhances the effectiveness of existing electrical deadman systems and therefore provides extra safety assurances to the airlines. The Timer system is designed to deter the illicit overriding of an existing safety device - the remotely held deadman handswitch.

A switch is incorporated within deadman handswitches which controls the flow of product. When the handswitch is released a control circuit is broken and product stops flowing. The operator therefore is able to react quickly to any incident and terminate flow.

Unfortunately the design of deadman handswitches makes them very easy to override e.g. an elastic band is often used or they can be wedged between pipework. The operator is then at liberty to wander off or become distracted. He has then lost effective control of the fuelling operation.

The Fluid Transfer Deadman Timer System ensures the operator has effective control by demanding a positive input from the operator during fuelling operations. This is achieved by means of a timer circuit that is designed to "time-out" every 2.5 -3 minutes. Flow is stopped after this period unless the operator generates a reset signal by releasing and regripping the handswitch.

The timer system is very compact and is mounted within an electrical enclosure for fitting in an electrically safe area. This is usually the vehicle cab and due to the small lightweight design of the unit this is possible in any vehicle.

The system is very easily installed on new vehicles.
All deadman system connections are routed to and from the board-mounted Timer System connecting block i.e. a fused supply, air solenoid wiring, deadman handswitch wiring, audible and visual prompt wiring.