# Solenoid Valve for Engine Shutdown Systems

## Model SVA-200

### **Typical applications**

- Refinery maintenance vehicles
- Road trucks
- Cranes
- Fuel tankers
- Vacuum trucks
- Fire engines
- Mobile drilling rigs
- Aircraft refuelling

### Key features and benefits

- Rugged construction for harsh environments
- Separating diaphragm isolates solenoid system from operating air
- Long service life, even in non-lubricating conditions
- Insensitive to contaminated air
- Lockable manual override standard
- Operates on 24 Volt DC signal
- Resistant to vibration



Model SVA-200
24 Volt, 3 Way Air Valve
for pneumatic control
of diesel engine intake
shutdown valves



# Solenoid Valve for Engine Shutdown Systems

## Overview

The direct-acting 3-way solenoid valve has a pivoted armature as the switching method.

This unique valve design hermetically isolates the actuator from the air, making it less sensitive to contaminated air than a plunger-type system and provides a long service life, even in unlubricated applications. The solenoid epoxy encapsulation efficiently dissipates the heat generated by the fluid.

This solenoid valve has been proven in service on road vehicles and is a recommended component in the Chalwyn Electric to Air Diesel Engine Safety Control Systems.

# Specification

Port connection	G 1/4" BSP	(Inlet, outlet and exhaust)
Orifice	DN 3.0 mm	
Body and seat materials	Brass and stainless steel 1.4401	
Coil material	Epoxy	
Coil insulation class	Н	
Seal material	FKM	
Media	Neutral media, such as compressed air, water, hot air, oxygen, hot oil, per solution	
Air pressure	Up to 10 bar	(140 psi)
Media temperature range	0 to 90°C	(32 to 194°F)
Ambient temperature	max 55°C (131°F) (min. temperature see 'Media Temperature')	
Operating voltage	24 VDC	(12 VDC models available on request)
Voltage tolerance	+/- 10%	
Duty cycle	100% continuous rating	
Electrical connection	Cable plug type 2508 (DIN EN 175301-803 Form A) for Ø 7 mm cable	
Protection class	IP65 with cable plug	
Weight	0.47 kg	(1.03 lbs)
Dimensions	Height: 100 mm(including plug)	
	Width: 46 mm	
	Depth: 34 mm	
Installation	As required, preferably with actuator upright	

# Solenoid Valve for Engine Shutdown Systems

### Installation

#### **Mechanical**

The SVA-200 has four M4  $\times$  8 mm tapped holes in its base. Mark a pattern 38 mm  $\times$  24 mm and drill four of 5 mm holes in the vehicle at a suitable sturdy location. Using four suitable screws attach the SVA-200 to the vehicle.

#### **Electrical**

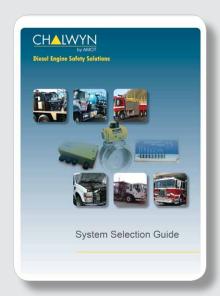
Connect the 24 Volt positive and negative wires in accordance with the paper leaflet supplied. Test the operation by switching the power on briefly and observing the visible action of the swinging arm through the central outlet port.

#### **Air Connections**

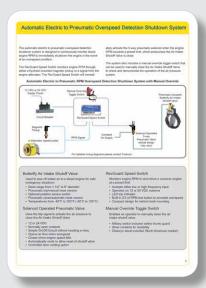
The vehicle's air supply connects to the inlet. (Normally closed). Suitable 1/4" BSP connectors are available in the Chalwyn SKA-100 kit. The central port is connected to the Chalwyn MPX, PVX or PVA valve. The normally open exhaust port should be connected to the restrictor orifice valve in the SKA-100 kit. This valve should be adjusted so the engine stops before the PVX or PVA valve automatically resets to the normal open position.

Pressing the manual button on the SVA-200 allows checking of the air system without operating the electrical system.

## **Control System Information**

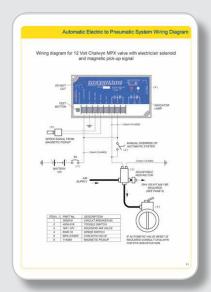


Chalwyn has a broad array of fully automatic shutoff systems and manual shutoff systems. Common operating methods include electric, pneumatic, electric/pneumatic, mechanical, or combinations of these mechanisms. The Chalwyn System Selection Guide provides an overview of the most



common types of systems used in applications today. The overview includes a description of the solution,

a diagram of the components and includes the functional highlights of the components used in each solution. These overviews will provide the information required to



help you determine the best type of solution for your application.

Download the brochure at www. dieselsafety.com/technicaldownloads



### **Chalwyn by AMOT**

sales@chalwyn.co.uk www.chalwyn.com

A division of Roper Industries Limited

#### UK

Western Way Bury St Edmunds Suffolk, IP33 3SZ

Tel: +44 (0)1284 715739 Fax: +44 (0)1284 715747

#### **USA**

8824 Fallbrook Drive Houston TX 77064

Tel: +1 281 940 1800 Fax: +1 713 559 9419

#### Canada

3230 97 Street Edmonton Alberta, T6N 1K4

Tel: +1 780 465 4429 Fax: +1 780 469 6275

#### Asia

Rm 4102 - 4104 United Plaza 1468 Nanjing Road West Shanghai 200040

Tel: +86 (0) 21 6279 7700 Fax: +86 (0) 21 5237 8560

