

# Interference Sensing Module

Form No. IS

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



ENGINEERING YOUR SUCCESS.

# Interference Sensing Module

- Ever get your hand caught in a door?
- Have elevator doors close on you without opening up?
- Have you seen damaged goods in a conveyor?

Parker-Origa's **NEW** Interference Sensing Module solves all these problems and more. It is designed to automatically reverse the direction of a pneumatic cylinder when it detects an obstruction.

What are the benefits of this technology?

## Benefits:

- Clean, simple design — Eliminates complex circuitry.
- Cost effective — Compared to alternative systems.
- Versatile — Controls all types of cylinders (AZ AZV, OSP-P, R, ROV) ranging from 8 mm to 80mm.
- Sensitive — Controls loads ranging from 2 ounces to over 400 lbs.
- High flow rates — Cv of 1.3
- Wide variety of voltages — 9 volt battery to 220 VAC

## Applications:

- Automatic Doors/Door Guards
- Flying Knives
- Pallet Handling
- Automatic Feed & Conveyor Systems
- Variable Height Pick & Place
- Elevator Systems
- Case Packaging

## How the system works.

(See Figure 1.)

Momentary input from the start button shifts the valve to extend the cylinder (rodless or rod-type). Once the cylinder reaches the full extended position a momentary input signal from the retract button shifts the valve to retract the cylinder.

Loss of back pressure, caused by an obstruction, triggers the pressure switch to shift the valve and retract the cylinder. A reed switch overrides the detection at the cylinder's full extended position. If the normally closed reed switch is not used, the the cylinder will automatically retract after reaching the full extended position.

## System Setup:

### 1. Load.

The supply pressure should be adjusted (regulated) to satisfy the load requirement of the system.

- The supply pressure range can be adjusted with a standard regulator.
- The supply pressure range of the IS module is between 22 and 116 PSI.

### 2. Speed.

The flow controls on the IS module should be adjusted to satisfy the speed requirement of the system.

- The exhaust throttle flow control can be adjusted with a flat head screw driver.

### 3. Sensitivity.

The pressure switch should be adjusted to meet the sensitivity requirement of the system.

- The pressure switch can be adjusted by turning knob on the pressure switch and locking it in place with a 2mm allen wrench.
- A clockwise adjustment results in more sensitivity.
- A counter-clockwise adjustment results in less sensitivity.

## Ordering Instructions

Voltage	Part Number
12 VDC	IS0250-0133
24 VDC	IS0250-0233
110 VAC	IS0250-5733
220 VAC	IS0250-6133

## Component Characteristics

Description	Units	Value
Medium		air
Filtration	μ	40
Lubrication		None
Supply Pressure (min.) (max.)	PSI	22 116
Flow	Cv l/min	1.3 1300
Ambient Temperature (min.) (max.)	°F	14 140
Fluid Temperature (min.) (max.)	°F	14 158

## Power Consumption

Inrush	AC		DC
	50 Hz	60 Hz	
12	—	—	2.8 W
24	8.5 VA	8.5 VA	2.5 W
110	8.5 VA	8.5 VA	2.7 W
220	8.5 VA	8.5 VA	3.5 W
Holding	AC		DC
	50 Hz	60 Hz	
12	—	—	2.8 W
24	8.5 VA	8.5 VA	2.5 W
110	8.5 VA	8.5 VA	2.7 W
220	8.5 VA	8.5 VA	3.5 W

Continuous Duty Solenoid Coils

Figure 1.  
System Setup Diagram

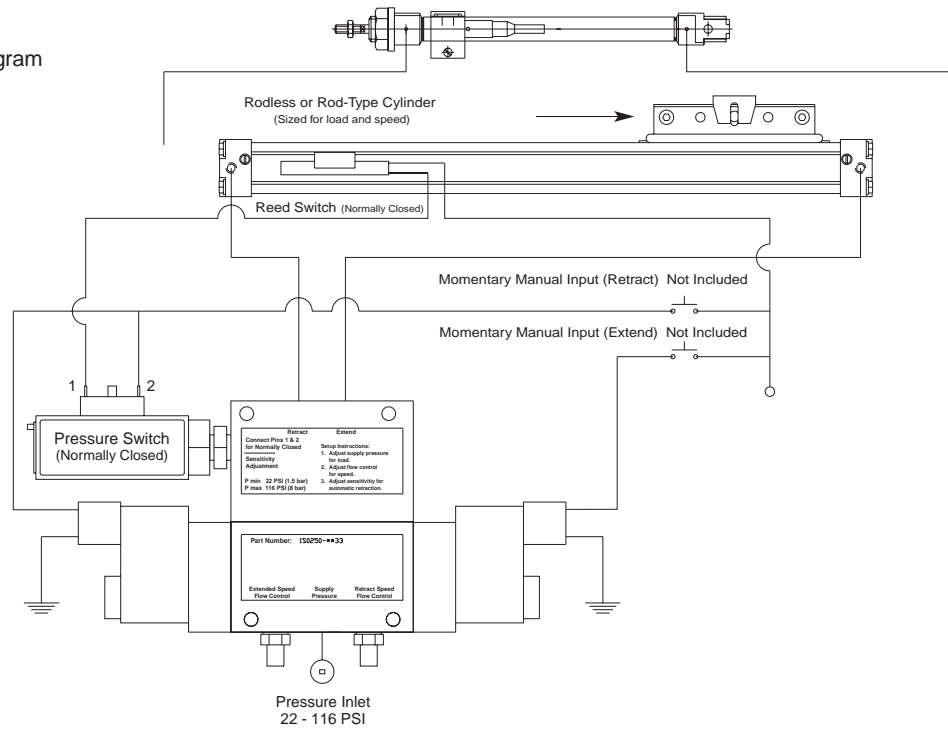
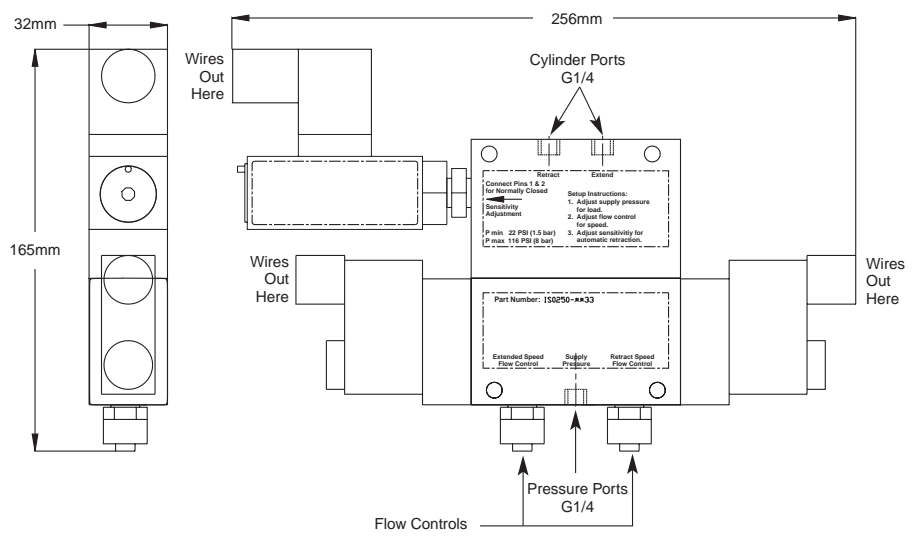
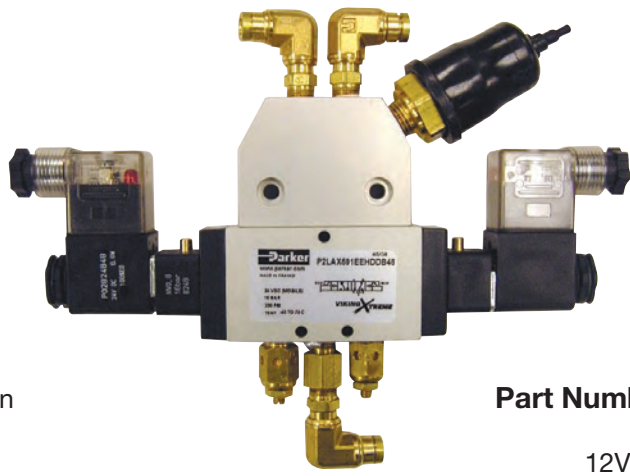


Figure 2.  
Dimensional Diagram



For Transportation Use.



Designed for -40°F Operation  
and DOT Fittings

**24VDC**  
**Part Number: H0-BL0400108**

12VDC on request.

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