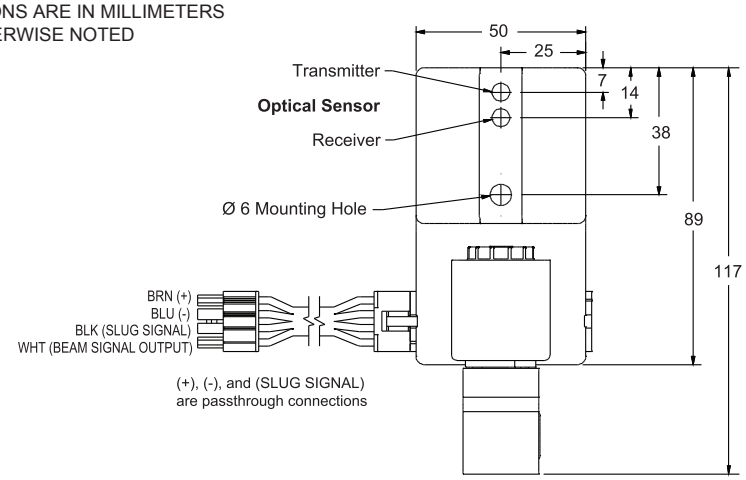
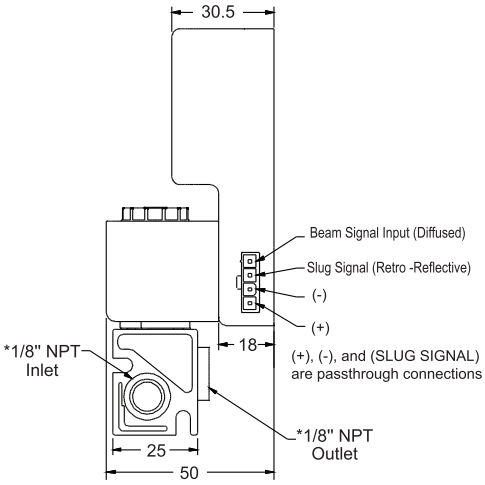
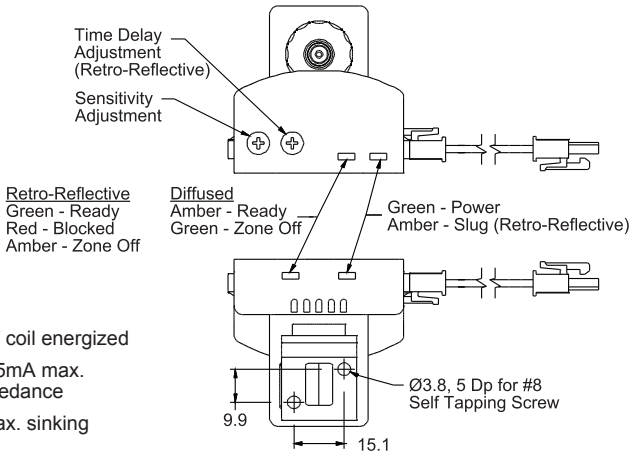
MODEL OSV
Wiring / Air Installation Diagram

ALL DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE NOTED



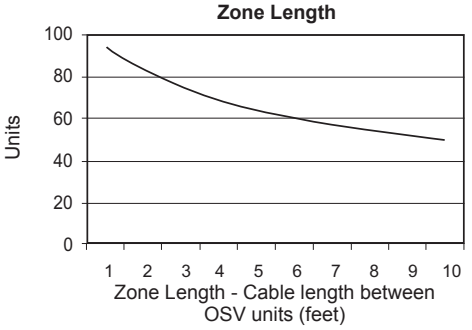


*WARNING -
When using metal fittings do not exceed 40 in. lbs. torque or material failure can occur



- Supply Voltage: 20 - 28 VDC
- Supply Current: 65mA with 0.9W coil energized
- Slug Signal Override (input): 0.25mA max. sinking (NPN), 100K input impedance
- Beam Signal (output): 200mA max. sinking (NPN) without object detection
- Valve Orifice / Pressure: 1.00mm / 0 - 30 psi
- Operating temperature: -10 to 50° C
- Sensing Distance: Up to 6 feet with proper alignment
- Electrical Current Requirements:
  With valve "ON" - 65mA
  With valve "OFF" - 30mA

Total OSV Units Connected In Series VS. Zone Length

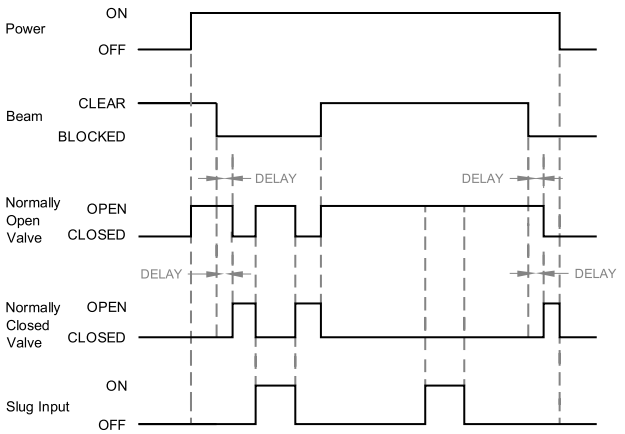


Retro-Reflective Accumulation

Retro-Reflective Accumulation

Normally Open Operation
- When Beam is CLEAR (no object detected)
  1) Status LED is GREEN
  2) Valve is OPEN
  3) Beam Signal is ON (sinking 200mA max)
- When Beam is BLOCKED (object detected)
  1) Status LED turn RED for the set amount of time delay (0.02 - 3sec) then turns AMBER
  2) Valve CLOSES after the set time delay
  3) Beam Signal turns off immediately (no time delay)
  4) If an override is needed, a GND signal to the Slug Input will OPEN all valves connected inline

Normally Closed Operation
- When Beam is CLEAR (no object detected)
  1) Status LED is GREEN
  2) Valve is CLOSED
  3) Beam Signal is ON (sinking 200mA max)
- When Beam is BLOCKED (object detected)
  1) Status LED turn RED for the set amount of time delay (0.02 - 3sec) then turns AMBER
  2) Valve OPENS after the set time delay
  3) Beam Signal turns off immediately (no time delay)
  4) If an override is needed, a GND signal to the Slug Input will CLOSE all valves connected inline



Diffused Accumulation
(no time delay or slug)

Diffused Accumulation

Normally Open Operation

When Beam is CLEAR (no object detected)

1) Status LED is AMBER
2) Valve is OPEN
3) Beam Signal is ON (sinking 200mA max)

When Beam is BLOCKED (object detected)

1) Status LED is GREEN (no time delay)
2) Valve is CLOSED (no time delay)
3) Beam Signal turns off immediately (no time delay)

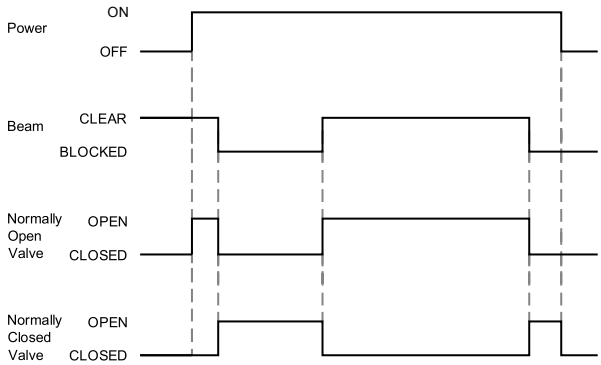
Normally Closed Operation

When Beam is CLEAR (no object detected)

1) Status LED is AMBER
2) Valve is CLOSED
3) Beam Signal is ON (sinking 200mA max)

When Beam is BLOCKED (object detected)

1) Status LED is GREEN (no time delay)
2) Valve is OPEN (no time delay)
3) Beam Signal turns off immediately (no time delay)



Retro-Reflective Indexing Normally Closed

Retro-Reflective Indexing

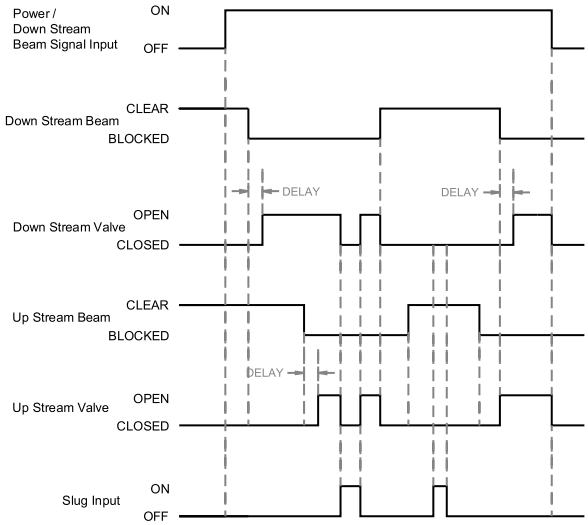
Normally Closed Operation

Downstream Sensor Beam is CLEAR (no object detected)

1) Downstream Sensor Status LED is GREEN
2) Downstream Sensor valve is CLOSED
3) Downstream Sensor Beam Signal is LOW providing a CLEAR signal to the Upstream sensor
4) Upstream Sensor valve is CLOSED no matter if its beam is CLEAR of BLOCKED

Downstream Sensor Beam is BLOCKED (object detected)

1) Downstream Sensor Status LED turns RED for the set time delay (0.02 - 3sec) then turns AMBER
2. Downstream Sensor valve OPENS after the set time delay
3) Downstream Sensor Beam Signal immediately changes HIGH (no time delay), providing a BLOCKED signal to the Upstream Sensor
4) Upstream Sensor valve is CLOSED until its Beam is BLOCKED
5) If both Downstream and Upstream sensors are BLOCKED their valves will be OPEN
6) If an override is needed, a GND signal to the Slug Input will CLOSE all valves connected inline



NOTE: Beam Status Signal follows the pattern as the Beam itself. When the Beam is clear the Beam Status Signal is ON.

Diffused Indexing Normally Closed
(no time delay or slug)

Diffused Indexing

Normally Closed Operation

Downstream Sensor Beam is CLEAR (no object detected)

1) Downstream Sensor status LED is AMBER
2) Downstream Sensor valve is CLOSED
3) Downstream Sensor Beam Signal is LOW, providing a CLEAR signal to the Upstream sensor
4) Upstream Sensor valve is CLOSED no matter if its beam is CLEAR of BLOCKED

Downstream Sensor Beam is BLOCKED (object detected)

1) Downstream Sensor Status LED turns GREEN (no time delay)
2) Downstream Sensor valve OPENS (no time delay)
3) Downstream Sensor Beam Signal immediately changes HIGH (no time delay), providing a BLOCKED signal to the Upstream Sensor
4) Upstream Sensor valve is CLOSED until its Beam is BLOCKED
5) If both Downstream and Upstream sensors are BLOCKED their valves will be OPEN
6) To release the LAST Downstream sensor, apply a 24VDC signal to the Beam Signal Input wire. (This only releases the last downstream sensor, no other sensors are affected)