

# Position Indicator 82653 Series

# GENERAL DESCRIPTION

The No. 82653 Series Position Indicator is a simple pneumatically-actuated position or sequence indicator which shows the condition of a measured variable or the position of a valve, pressure switch, damper, etc.

# **SPECIFICATIONS**

### **Construction:**

| Mounting plate   | 316 stainless steel            |
|------------------|--------------------------------|
| Body             | Cast aluminum                  |
| Springs          | Stainless steel                |
| Diaphragm        | Neoprene covered nylon         |
| Escutcheon       | Delrin                         |
| Supply Pressure: | 20 - 50 psi (137.90-344.74kPa) |
|                  | Air, natural gas               |
|                  | (dry sweet) or an inert gas    |

# Pressure required at Port "T" to transfer relay:

| respure required at rore r         | o transfer ready.            |
|------------------------------------|------------------------------|
| Pressure ON Indication:            | 14-20 psi (96.53-137.90 kPa) |
| Pressure OFF Indication:           | 5-14 psi (34.48-96.53 kPa)   |
| <b>Mounting:</b>                   | Panel                        |
| Net Weight:                        | 12 oz.                       |
| Dimensions:                        | See Figure 1                 |
| Connections:                       | 1/8" - 27 NPT                |
| <b>Panel Mounting Hole:</b>        |                              |
| <b>Min. Recommended Centerline</b> | <b>Spacing:</b> 3" (76.2 mm) |
| Panel Thickness:                   | 3/8" (9.53 mm) maximum       |
|                                    |                              |

# **Models Available:**

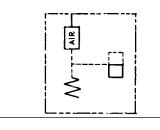
| MODEL NO. | INDICATION  |                     |  |
|-----------|-------------|---------------------|--|
|           | Pressure ON | <b>Pressure OFF</b> |  |
| 82653-B1  | Green       | Red                 |  |
| 82653-B2  | On          | Off                 |  |
| 82653-B3  | Open        | Closed              |  |
| 82653-B4  | Closed      | Open                |  |
| 82653-B5  | Open        | White               |  |
| 82653-B6  | Closed      | White               |  |
| 82653-B7  | Green       | Red Striped         |  |
| 82653-B8  | Red         | Green               |  |
| 82653-B9  | Red Striped | Green               |  |

#### **ORDERING INFORMATION:**

**SPECIFY:** 

Model No.





J.I.C. Symbol

# **INSTALLATION**

# General

Tubing and fittings used to connect relay must be free of chips, dirt, moisture or other foreign matter. If thread compound or shellac is used, apply it only above second or third male thread in moderate amounts. Do not allow compound to be deposited inside indicator.

For continuous, trouble-free operation, the air supply to the relay must be clean and dry.

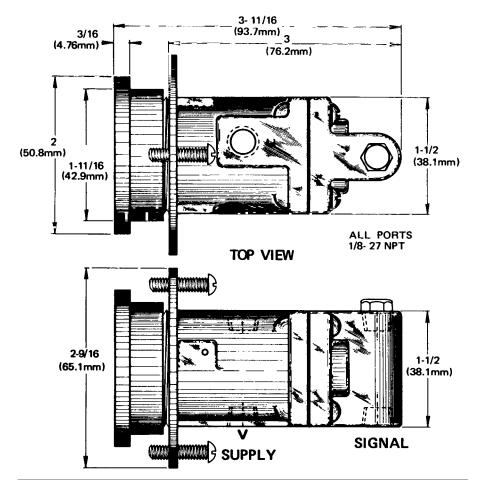
# **Mounting**

When installing the No. 82653 Series Position Indicator, care must be taken to prevent foreign matter from entering ports.

For panel mounting, provide a 1-3/4 (44.5 mm) diameter hole. Remove escutcheon, insert relay through hole in panel, replace escutcheon and tighten by hand until escutcheon bottoms against the relay housing. To prevent damage to escutcheon, do not use sharp-toothed tools, etc. Rotate mounting plate to a position where the screws are readily accessible. Tighten screws to lock relay in place.

# **Connections**

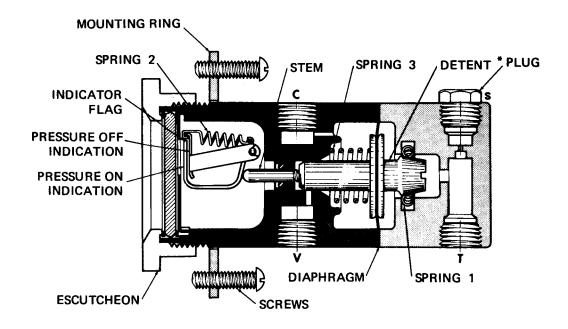
Consult system schematic for proper connections. Typical Application, Port T is used as signal input.



SIDE VIEW

# **OPERATION**

Pressure introduced at the supply Port "T' positions the indicator flag to correspond with position or condition of measured variable. Spring 2 holds the indicator flag against the plunger and assures instantaneous indication of position or condition. When pressure is removed from Port "T' Spring 3 forces detent back allowing the opposite flag to appear.



# \* NOTE:

The plug in port "S" may be removed and the supply to the indicator may also be used as an orificed supply to sensing devices, etc. (orifice size is .028" (.711 mm) dia.). in this case, supply is connected to port "S" and port "T" is connected to the sensing device. When the sensing device vents the sir signal, pressure downstream of the orifice is vented allowing the indicator to move to the "Pressure Off position.

Figure 2

# **MAINTENANCE**

- A. If indicator does not function properly due to contamination by foreign matter, disassemble and clean all metal parts with non-flammable cleaning fluid and dry thoroughly.
- B. After reassembly, check for external leakage. Retighten assembly screws as necessary. Gasket cement should not be used to seal leaks due to the possibility of plugging passages, or possible damage which might change the operating characteristics of the diaphragm.

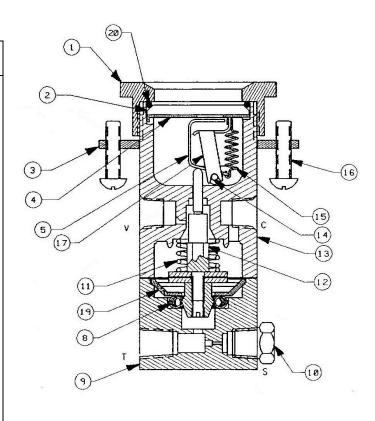
# **CAUTION:**

If cleaning is required, do not subject O-Ring, Quad-Ring, or gasket to cleaning fluid, acetone, or any halogenated hydrocarbon such as degrease liquids, etc. Clean only with a soft dry cloth.

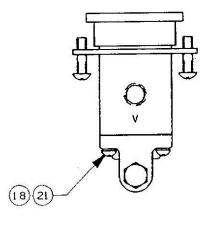
Upon reassembly, the O-Ring is to be lubricated with a non-drying silicone-type lubricant. Do not permit lubricant to get on poppet or valve seat.

# **PARTS LIST**

|        |       | T              | I               |  |
|--------|-------|----------------|-----------------|--|
| Detail | No.   |                |                 |  |
| No.    | Req'd | Description    | Part No.        |  |
| 1      | 1     | Escutcheon     | 30201-C1        |  |
| 2      | 1     | Lens           | 30443-B1        |  |
| 2 3    | 1     | Mounting Plate | 30444-B1        |  |
| 4      | 1     | Window         | 30440-Al        |  |
| 5      | 1     | Flag           | See table below |  |
| 6      |       |                |                 |  |
| 7      |       |                |                 |  |
| 8      | 1     | Garter Spring  | 30445-Al        |  |
| 9      | 1     | Cover          | 30330-B1        |  |
| 10     | 1     | Plug           | 30310-G1        |  |
| 11     | 1     | Spring         | 26805-Al        |  |
| 12     | 1     | Stem Assembly  | 82665-Al2       |  |
| 13     | 1     | Housing        | 30331-A2        |  |
| 14     | 1     | Roll Pin       | 36606-A7        |  |
| 15     | 1     | Spring         | 30441-Al        |  |
| 16     | 2     | Screw          | 33716-A1710     |  |
| 17     | 1     | Insert         | See table below |  |
| 18     | 4     | Cover Screw    | 33173-J1310     |  |
| 19     | 1     | Detent Plate   | 36352-Al        |  |
| 20     | 1     | O-Ring         | 36240-N0122     |  |
| 21     | 4     | Lock Washer    | 36600-L0609     |  |



| Model    | INDICATION  |             | DET      | AIL      |
|----------|-------------|-------------|----------|----------|
| No.      | Pressure    | Pressure    |          |          |
|          | On          | Off         | No. 5    | No. 17   |
| 82653-B1 | Green       | Red         | 30439-A1 | 30941-A1 |
| 82653-B2 | On          | Off         | 83137-A1 | 83136-A1 |
| 82653-B3 | Open        | Closed      | 83137-A2 | 83136-A2 |
| 82653-B4 | Closed      | Open        | 83137-A3 | 83136-A3 |
| 82653-B5 | Open        | White       | 83137-A2 | 30941-D1 |
| 82653-B6 | Closed      | White       | 83137-A3 | 30941-D1 |
| 82653-B7 | Green       | Red Striped | 30439-A1 | 83136-B1 |
| 82653-B8 | Red         | Green       | 30439-B1 | 30941-B1 |
| 82653-B9 | Red Striped | Green       | 83137-B1 | 30941-B1 |



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