BrayLINE ACCESSORIES

SERIES 52
2 INDUCTIVE PROXIMITY SENSORS
AC, DC & INTRINSICALLY SAFE VERSIONS

2N1™ PROXSENSOR
VALVE STATUS MONITOR

Bray 2N1™ ProxSensor

THE NEXT GENERATION OF VALVE POSITION SIGNALING

In response to the needs of today's discrete manufacturing and process industries, Bray Controls is proud to offer the 2N1™ ProxSensor valve status monitor. Bray's innovative engineering has uniquely combined 2 inductive proximity sensors in 1 self–contained, fully sealed, compact enclosure.

The Series 52 offers the bounce–free electronic valve signaling required for all PLC, computer and solid–state circuitry vital to process control and information networks. Costly external junction boxes are eliminated and field wiring costs are greatly reduced. Bray's approach to valve monitoring delivers the most compact, reliable and economical valve position signaling system available.

ELECTRICAL CONNECTION

A multi–pin electrical connector is designed for full compatibity with today's industrial wiring requirements. Standardized factory prewiring prevents wiring errors and provides quick–connect field installation.

INDUCTIVE PROXIMITY SENSORS

Bray Series 52 sensors are solid–state electronic controls which provide high resolution, are spark free and contain no moving electrical parts to wear out. AC, DC and AC/DC sensors are available. The AC sensors operate on 20 to 250 VAC. No amplifier is needed for AC applications. The standard DC sensor, offered as either PNP or NPN, has an economical internal amplifier and operates on 10 to 65 VDC. The Intrinsically Safe DC sensor can be supplied with amplifier as a complete system. The AC/DC sensor is capable of operating with either AC or DC power sources.

VALVE POSITION TARGET

A unique, symmetrically designed target is mounted inside the valve position pointer. The target is factory pre-aligned for Bray products. No cams or set screws are required and time consuming field adjustment is eliminated. The target is stainless steel and the sensor is nonmagnetic. It will not attract and be falsely tripped by loose metal objects.

MOISTURE, CHEMICAL AND CORROSION PROTECTION

The two proximity sensors are completely encapsulated with epoxy resin in a rigid nylon enclosure that is impervious to moisture and most chemical and corrosive agents. Once the multi–pin connection is made, the cable link to plant wiring is completely sealed. No removable covers or conduit entries which can allow failure due to moisture are used. These protections make the 2N1 ProxSensor the superior choice for hostile environments.

2N1 NYLON ENCLOSURE

Bray's design of 2 sensors in 1 rugged enclosure greatly reduces space requirements and expensive housings needed for previous dual switch applications. The epoxy resin encapsulation protects the sensors against vibration or shock.

LED INDICATORS

Bray supplies the 2N1 ProxSensor with two built in LED indicators. The LED's give positive verification that the sensors are electrically functioning. A pointer, made of highly visible yellow ABS, shows valve position locally throughout the full range of travel.

The High Performance Company

SPECIFICATIONS

Parameter	AC Sensor	DC Sensor (3 Wire)	AC/DC Sensor		Intrinsically Safe DC*
			AC	DC (2Wire)	
Supply Voltage	20 – 250 VAC	10 – 65 VDC	20 – 250 VAC	20 – 300 VDC	Customer connection is through Switching Amplifier.
Line Frequency	40 – 60 Hz	—	40 – 60 Hz	—	
Load Current	500 mA	200 mA	400 mA	300 mA	
Inrush Current	0.7A/2 cycles (33 ms)	—	8A/2 cycles (10 ms)	—	
Leakage Current	1.7 mA Max.	20 µA Max.	1.7 mA Max.	—	
Voltage Drop	6 V	1.8 V	6.3 V	6.3 V	
Switching Frequency	20 Hz	1,000 Hz	20 Hz	20 Hz	
Switching Point Drift	± 10% Sr	± 10% Sr	± 10% Sr	± 10% Sr	
Differential Travel	± 2 – 15% Sr	± 2 – 15% Sr	± 3 – 15% Sr	± 3 – 15% Sr	
Output Status	2 LED's Red	2 LED's Red	2 LED's Red	2 LED's Red	2 LED's Red
Output Function	Normally Open	Normally Open	Normally Open	Normally Open	Normally Closed
Housing Material	PA12-GF30 Nylon	PA12-GF30 Nylon	PA12-GF30 Nylon	PA12-GF30 Nylon	PA12-GF30 Nylon
Temperature Range	-13°F to +158°F -25°C to +70°C	-13°F to +158°F -25°C to +70°C	-13°F to +158°F -25°C to +70°C	-13°F to +158°F -25°C to +70°C	-13°F to +158°F -25°C to +70°C
Output Connector	5 pin Mini	4 pin Euro	5 pin Mini	5 pin Mini	4 pin Euro
Protection Class	NEMA 4, 4X, 6, 12, 13 IP 65, 66, 67	NEMA 4, 4X, 6, 12, 13 IP 65, 66, 67	NEMA 4, 4X, 6, 12, 13 IP 65, 66, 67	NEMA 4, 4X, 6, 12, 13 IP 65, 66, 67	For Hazardous Locations

* Intrinsically Safe units must be used with an external Switching Amplifier. Various Switching Amplifiers can be used to meet the electrical conditions required by the customer.

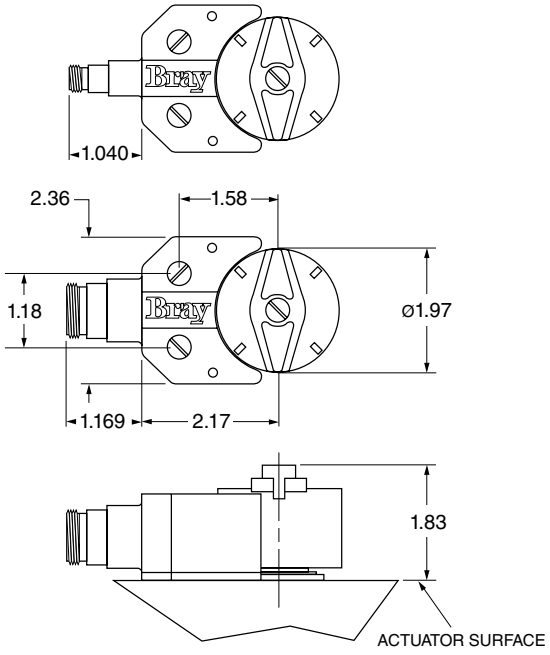
INDUSTRIES

Bray's 2N1 ProxSensor is applicable to a wide range of industries world wide, including – Chemical, Pharmaceutical, Petroleum Refining, Microelectronics, Pulp and Paper, Water and Waste Water Treatment, Brewing, Food Processing, Beverages, Power Generation, Mining, Textile and HVAC.

APPLICATIONS

The Series 52 is the best solution for applications where:

- Valve position indication is needed.
- Fast electronic control systems require an input signal with no contact bounce and low energy consumption.
- Long service life and rugged reliability are specified.
- Hostile environments demand excellent moisture, chemical and corrosion resistance.
- Rapid response capability and a high sensing rate are needed.



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 B-1015-EN 06-08