

# Model TSAOF22

## None-Contact Angle Position Sensor

- Hall effective
- Absolute Position
- Linearity  $<\pm 0.2\%$
- Long life
- Single turn
- Penal Mount
- None-Standard Features and Specifications Available



### MECHANICAL

|                                 |   |
|---------------------------------|---|
| Total Mechanical Travel         | 0 - 360( $\pm 5$ )° (with\without stop) |
| Starting Torque                 | 0.5Ncm                                  |
| Max Rotating Speed              | 120rpm                                  |
| Max Permitted Axial Shaft Load  | 10N                                     |
| Max Permitted Radial Shaft Load | 10N                                     |
| Weight                          | 24g                                     |

### ELECTRICAL

|                       |  |
|-----------------------|--|
| Measuring Range       | 360° (Find more options in ORDER INFO)                 |
| Independent Linearity | $< \pm 0.2\%$  |
| Resolution            | 12 bit   |
| Refresh Rate          | 290 ( $\pm 15$ ) $\mu$ s                               |
| Max. Hysteresis       | 0.1°   |
| Max. Repeatability    | 0.1°   |
| Supply Voltage        | 5 ( $\pm 10\%$ ) VDD (Find more options in ORDER INFO) |
| Supply Current        | $< 12$ mA  |
| Output Load Analog    | 10k $\Omega$   |
| Load Output Capacity  | 10 to 330nF  |

### ENVIRONMENTAL

|                             |  |
|-----------------------------|--|
| Protection Class            | IP54/IP65  |
| Life                        | $> 10 \times 10^5$                               |
| Operation Temperature Range | -40°C ~ +150°C (Find more options in ORDER INFO) |
| Shock                       | 50g, 11m   |
| Storage Temperature         | -40°C ~ +85°C                                    |

### CE-CONFORMITY

RF noise field strength EN 55011, class B  
ESD EN 61000-4-2  
Radiated immunity EN 61000-4-3  
Burst EN 61000-4-4  
Conducted disturbances induced by RF fields EN 61000-4-6

### ACCESSORY

|                                |          |              |
|--------------------------------|----------|--------------|
| Length of wires / ribbon cable | Standard | AWG24 15cm   |
| Length of wires / ribbon cable | Optional | AWG24 20cm   |
| Length of wires / ribbon cable | Optional | Other Length |

## ORDERING INFORMATION

| Mechanical Travel             |          |  |   |
|-------------------------------|----------|--|---|
| 360° without stop             | Standard |  | 1 |
| Other Angle Request with stop | Optional |  | X |
| Effective Electronic Travel   |          |  |   |
| 300°                          | Standard |  | 1 |
| 235°                          | Standard |  | 2 |
| Other Angel                   | Optional |  | X |

### Shaft Type

|   |          |                    |
|---|----------|--------------------|
| D | Standard | D Type             |
| I | Standard | I Type             |
| R | Standard | Round Type         |
| X | Optional | Other Type Request |

### Shaft Length

|   |          |                      |
|---|----------|----------------------|
| 1 | Standard | 24mm                 |
| 2 | Standard | 16mm                 |
| X | Optional | Other Length Request |

### Operation Temperature

|   |          |                |
|---|----------|----------------|
| E | Standard | -40°C ~ +85°C  |
| K | Standard | -40°C ~ +125°C |
| L | Optional | -40°C ~ +150°C |

TSAOF22 **1 1 1 3 0 0 3 6 0 D 1 E**

### Output Signal

|   |          |           |
|---|----------|-----------|
| 1 | Standard | 10% - 90% |
| 2 | Standard | 0% - 100% |
| 3 | Optional | 4 - 20 mA |
| X | Optional | X% - Y%   |

### Input Voltage

|   |          |                     |
|---|----------|---------------------|
| 1 | Standard | 5V DC               |
| 2 | Optional | 10V DC              |
| 3 | Optional | 12V DC              |
| 4 | Optional | 24V DC              |
| X | Optional | Other Input Request |

### Output Characteristic

|   |          |                                  |
|---|----------|----------------------------------|
| 1 | Standard | Positive gradient CW             |
| 2 | Standard | Positive gradient CCW            |
| 3 | Optional | Redundant, positive gradient CW  |
| 4 | Optional | Redundant, positive gradient CCW |
| X | Optional | Other Request                    |

## OUTLINE DRAWING

