



LU0-AV001-0413-5G00-PRM



### Product Description

POSITAL LINARIX Analog Voltage linear sensors, design: Draw Wire Enclosure, Extruded Metal and 13 bit (8192 Steps) resolution.

| GENERAL DATA              |                  | ✓ |
|---------------------------|------------------|---|
| Supply Voltage            | 8 – 32 VDC       |   |
| Start-Up Time             | <500 ms          |   |
| Min Temperature           | -20 °C (-4 °F)   |   |
| Max Temperature           | +80 °C (+176 °F) |   |
| Weight                    | 1455 g (3.21 lb) |   |
| Protection Class          | IP64 / IP65      |   |
| EMC: Emitted Interference | DIN EN 61000-6-4 |   |
| EMC: Noise Immunity       | DIN EN 61000-6-2 |   |

| MECHANICAL DATA <span>✓</span>  |                                                      |
|---------------------------------|------------------------------------------------------|
| Measuring Length                | 5.00 m (16.40')                                      |
| Mean Length per Revolution      | 315 mm                                               |
| Wire Material                   | Coated Polyamide Stainless Steel                     |
| Wire Diameter                   | 1.00 mm                                              |
| Housing Material                | Steel                                                |
| Draw Wire Housing Material      | Aluminum                                             |
| Max. Speed of Wire Displacement | 2.0 m / s                                            |
| Max. Angular Acceleration       | 5.0 g                                                |
| Max Extension Force             | 16.0 N                                               |
| Min Retraction Force            | 4.0 N                                                |
| Actuation Lifetime              | 0.5 mio Cycles (Estimated based on ideal conditions) |
| Wire Mounting                   | Eyelet                                               |
| Max. Wire Exit Angle            | ±3°                                                  |

## SENSOR DATA



|                           |                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technology                | Magnetic ( $\leq 0.09^\circ$ )                                                                                                                       |
| Accuracy                  | $\pm 0.02$ % Full Scale Output                                                                                                                       |
| Repeatability             | $\pm 0.002$ % Full Scale Output                                                                                                                      |
| Resolution Singleturn     | 13 bit                                                                                                                                               |
| Resolution Multiturn      | 4 bit                                                                                                                                                |
| Approx. Linear Resolution | 38.5 $\mu\text{m}$                                                                                                                                   |
| Code                      | Analog Voltage 0 – 5 V                                                                                                                               |
| Resolution of Output      | Max. 13 bits over entire measuring range<br>(Fractional Turns - Resolution decreases less than 13 bits when measuring range is less than 90 degrees) |
| Multiturn Range           | 16 turn (default setting). User can use the scaling functionality to measure up to 65536 turns.                                                      |

## INTERFACE



|                  |                                            |
|------------------|--------------------------------------------|
| Interface        | Analog Voltage                             |
| Manual Functions | Start and End point via Cable or Connector |

## ELECTRICAL DATA



|                             |                                              |
|-----------------------------|----------------------------------------------|
| Current Consumption         | Typical 15 mA @24V (no load)                 |
| Min. Load Resistance        | 5 kΩ                                         |
| Analog Accuracy             | @ 10 V = ±10 mV (with an ideal power supply) |
| Settling Time               | 32 ms (from min value to max value jump)     |
| Reverse Polarity Protection | Yes                                          |
| Short Circuit Protection    | Yes                                          |
| MTTF                        | 257.6 years @ 40 °C                          |

## ELECTRICAL CONNECTION



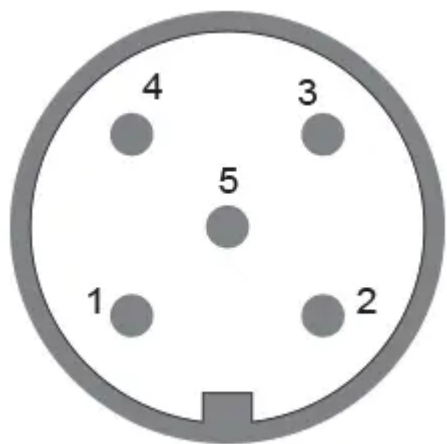
|                                          |                           |
|------------------------------------------|---------------------------|
| Connection Orientation                   | Radial                    |
| Connection Orientation (w.r.t Draw Wire) | Radial 0 / Axial          |
| Connector                                | M12, Male, 5 pin, a coded |

## PRODUCT LIFE CYCLE



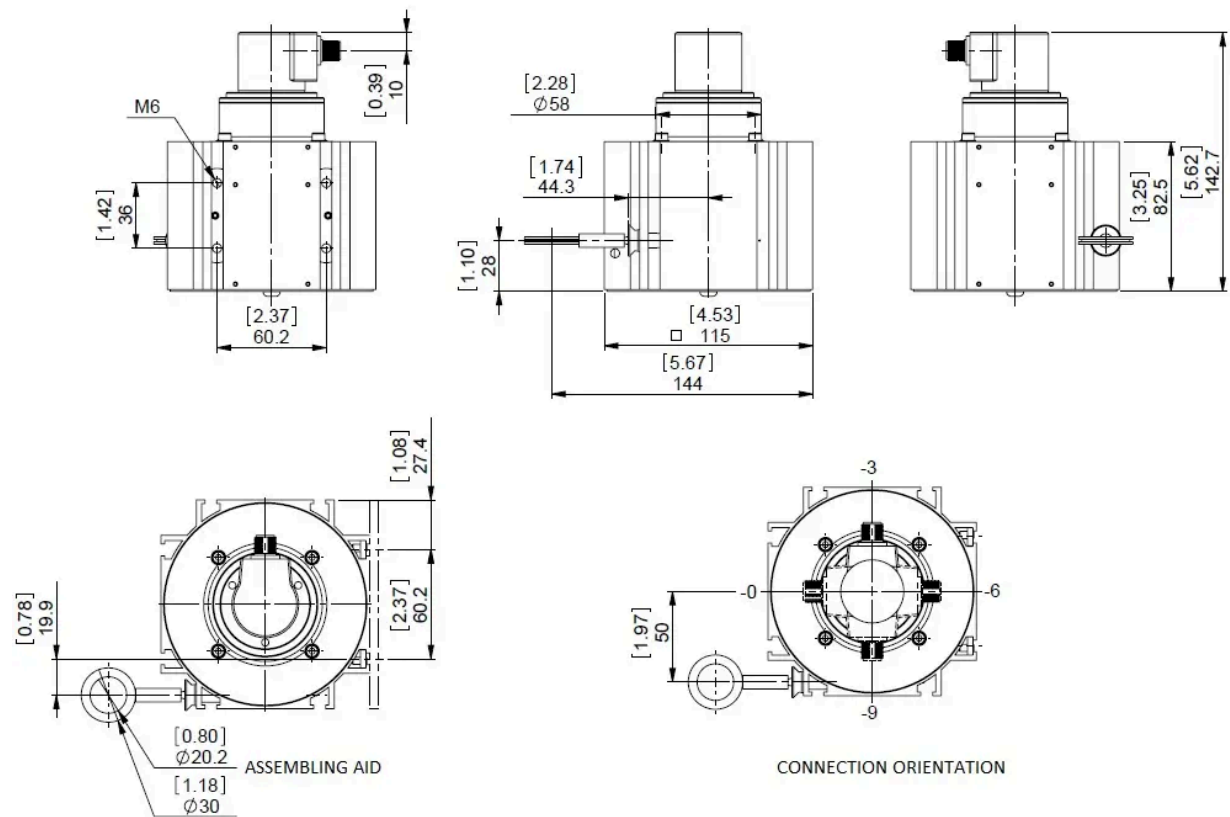
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|--------------------|-------------|
| Product Life Cycle | Established |
|--------------------|-------------|

# Connection Plan



| Signal         | Connector | Pin Number |
|----------------|-----------|------------|
| Power Supply   | 1         | 2          |
| GND            | 1         | 3          |
| Analog Output  | 1         | 1          |
| Set1/Direction | 1         | 5          |
| Set2/Zero Set  | 1         | 4          |

## Drawings



## Online Datasheet

