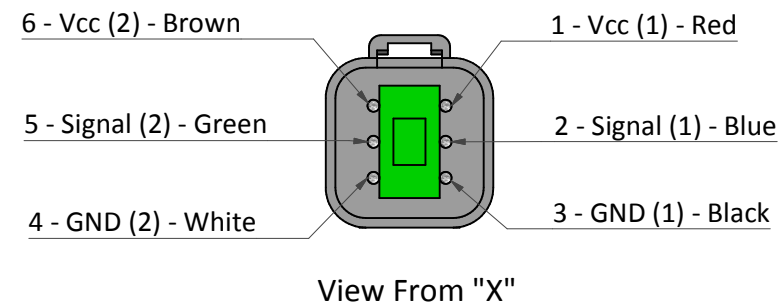
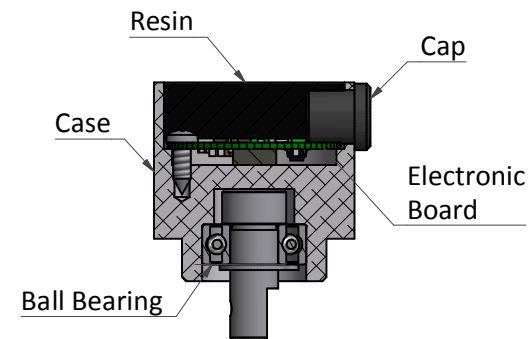
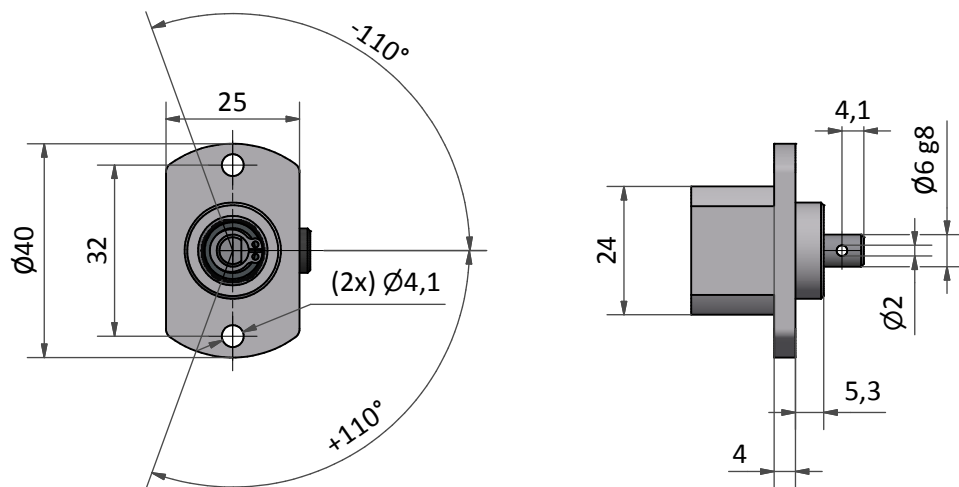
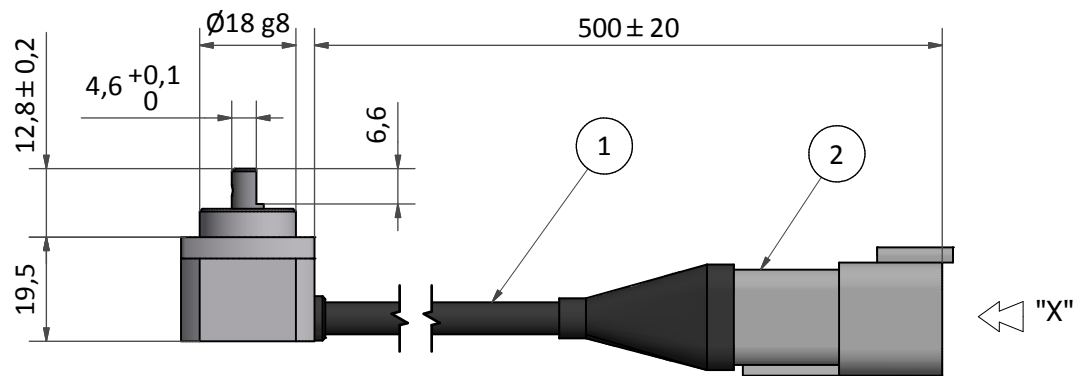


■ Angular Sensor

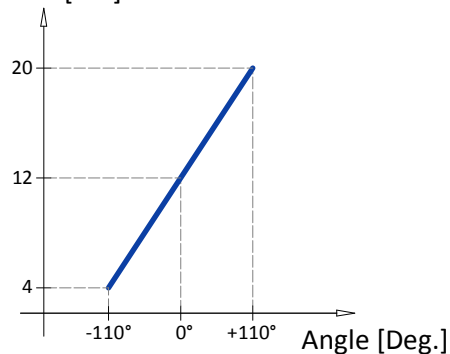


| Ref. | Description                      | Operating Temperature |
|------|----------------------------------|-----------------------|
| 1    | Cable HT 105°C                   | -25 / +105            |
| 2    | 6 Pins Deutsch DT04-6P Connector | -55 / +125            |

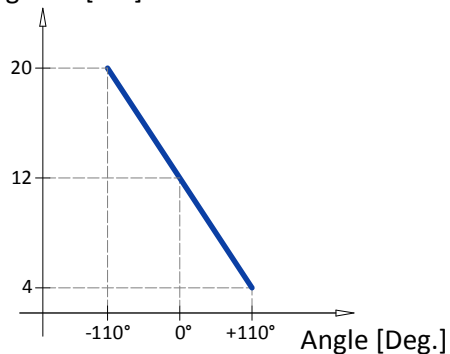
|                                                                                                                                  |      |       |                    |                                      |            |                                     |                                                                                       |             |            |
|----------------------------------------------------------------------------------------------------------------------------------|------|-------|--------------------|--------------------------------------|------------|-------------------------------------|---------------------------------------------------------------------------------------|-------------|------------|
|  <b>ELEN</b><br>industrial vehicles sensors |      |       |                    | www.elensrl.com                      |            | Elen Srl - Garbagnate Milanese (MI) |                                                                                       |             |            |
|                                                                                                                                  |      |       |                    | Part Number:                         |            | AA020502-31                         |                                                                                       |             |            |
| Description:                                                                                                                     |      |       |                    | Sens. Angolare 10-30V 4-20mA ±110°FP |            |                                     |                                                                                       |             |            |
| Rev.                                                                                                                             | Date | Sign. | Review Description | Designed                             | 10/02/2021 | A.DES                               | Scale : 1 : 1 (A3 format)                                                             |             |            |
|                                                                                                                                  |      |       |                    | Checked                              | 10/02/2021 | M.CANAVESI                          | Dimensions without tolerance indication:<br>ISO 2768 - m                              |             |            |
|                                                                                                                                  |      |       |                    | Approved                             | 10/02/2021 | M.CANAVESI                          |  | Units<br>mm | Page 1 / 2 |

## ■ Output Signal

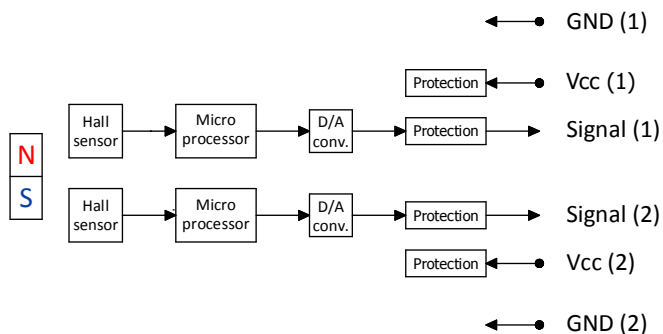
Signal 1 [mA]



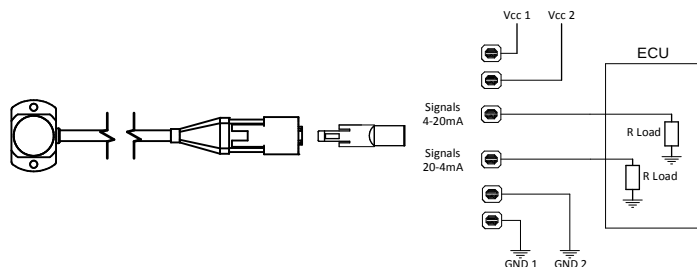
Signal 2 [mA]



## ■ Functional Scheme



## ■ Typical Application



## ■ Technical Specifications

|               | Specific                                          | Value                                                                                                                               | Standard Reference                                        |
|---------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Electrical    | Power Supply (Vcc)                                | Min 10V - Max 30V                                                                                                                   | ELEN PDV Rev. 3 - 5.1                                     |
|               | Supply Current (No Load)                          | 30 mA Max                                                                                                                           | -                                                         |
|               | Linear Output 1                                   | Linear 4 ÷ 20 mA                                                                                                                    | -                                                         |
|               | Linear Output 2                                   | Linear 20 ÷ 4 mA                                                                                                                    | -                                                         |
|               | Overvoltage Protection                            | 36V For 1h                                                                                                                          | ELEN PDV Rev. 3 - 5.7                                     |
|               | Output Short Circuit Protection                   | To Ground For 5'<br>To VDC For 5'                                                                                                   | ELEN PDV Rev. 3 - 5.4                                     |
|               | Reverse Polarity Protection                       | -30V For 1h                                                                                                                         | ELEN PDV Rev. 3 - 5.3                                     |
|               | EMC Compatibility                                 | BCI - Class "A" - 100mA ; 1~400 MHz                                                                                                 | ISO 11452-4                                               |
|               | Resolution                                        | < 0.1°                                                                                                                              | -                                                         |
|               | Maximum Output Load Recommended                   | < 250 Ohm@ Vin=10V ;<br>< 820 Ohm@ Vin=24V ;<br>< 1250 Ohm@ Vin=30V                                                                 | -                                                         |
|               | Dielectric Rigidity                               | 750V@50Hz For 60s                                                                                                                   | ELEN PDV Rev. 3 - 5.11                                    |
|               | ESD Protection                                    | ±8kV Contact , ±15 kV Air                                                                                                           | EN 61000-4-2                                              |
|               | Insulation Resistance                             | 1000 MOhm@500V                                                                                                                      | ELEN PDV Rev. 3 - 5.10                                    |
|               | Temperature Operating Voltage                     | 30V@105°C For 1h                                                                                                                    | ELEN PDV Rev. 3 - 5.8                                     |
|               | Linearity                                         | < ±1 %                                                                                                                              | -                                                         |
| Environmental | Operating Temperature (for Electronic Components) | -40°C ~ +105°C                                                                                                                      | EN 60068-2-1;EN 60068-2-2;<br>EN 60068-2-30;EN 60068-2-14 |
|               | Storage Temperature (for the Assembly)            | -40° ~ +115°C                                                                                                                       | EN 60068-2-1;EN 60068-2-2;<br>EN 60068-2-30;EN 60068-2-14 |
|               | Degree Of Protection                              | IP 67                                                                                                                               | IEC 60529                                                 |
|               | Vibrations Resistance - Sine                      | (5÷12.87) Hz@dis ±15mm ,(12,87÷200) Hz@dis ≤±15mm@5g, 1 Octave/min , 20 Sweep Cycles                                                | EN 60068-2-6                                              |
|               | Vibrations Resistance - Random                    | f=10Hz@PSD=1.44 g2/Hz ;<br>f=100Hz@PSD=3.85 g2/Hz ;<br>f=1000Hz@PSD=3.85 g2/Hz ;<br>f=2000Hz@PSD=0.96 g2/Hz ; 3 Axis - 24h For Axis | EN 60068-2-64;<br>ENS 0310 Rev. J                         |
| Mech.         | Body Material                                     | Aluminium With Antioxidant Treatment                                                                                                | -                                                         |
|               | Shaft Material                                    | Stainless Steel                                                                                                                     | -                                                         |