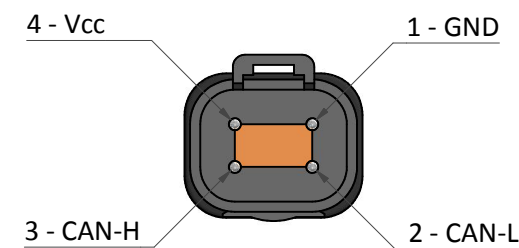
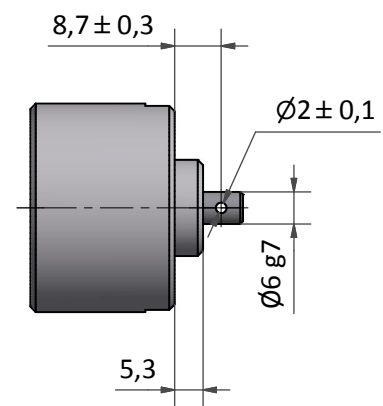
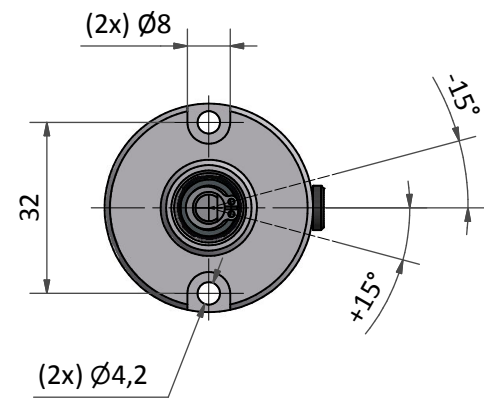
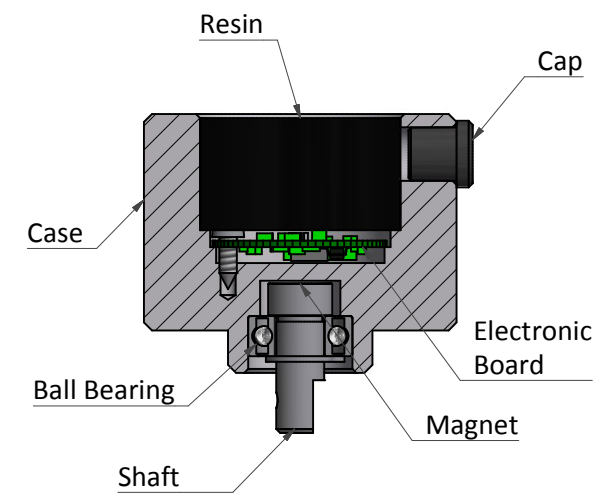
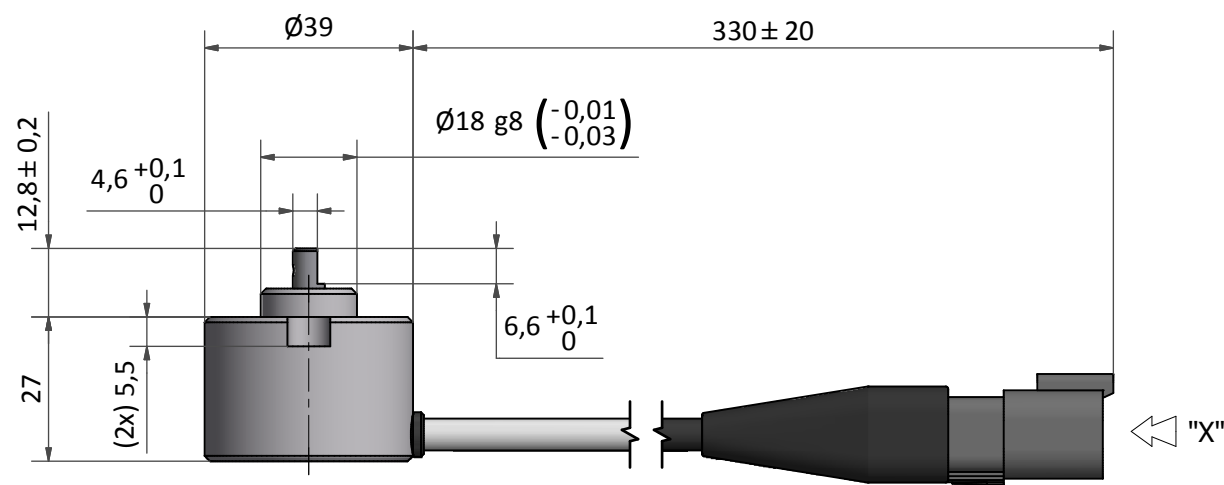
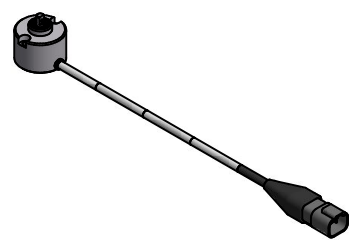


■ Angular Sensor



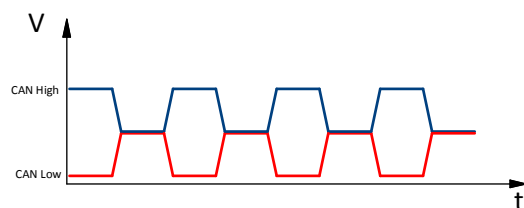
View From "X"



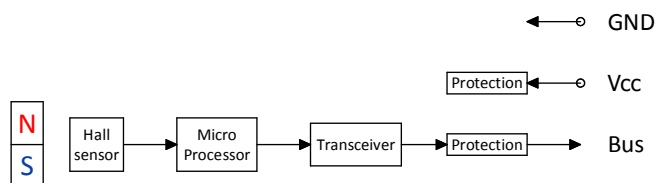
| Ref. | Description             | Operating temperature |
|------|-------------------------|-----------------------|
| 1    | Cable HT 105°C          | -25 / +105            |
| 2    | 4 Pin Deutsch Connector | -40 / +125            |

|                                                                                                                                  |      |       |                    |                 |            |                                     |                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------|------|-------|--------------------|-----------------|------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------|
|  <b>ELEN</b><br>industrial vehicles sensors |      |       |                    | www.elensrl.com |            | Elen Srl - Garbagnate Milanese (MI) |                                                                                                           |
|                                                                                                                                  |      |       |                    | Part Number:    |            | AA344000                            |                                                                                                           |
|                                                                                                                                  |      |       |                    | Description:    |            | CAN J1939 Bus Angular Sensor        |                                                                                                           |
| Rev.                                                                                                                             | Date | Sign. | Review Description | Designed        | 20/06/2019 | Hamidreza T.                        | Scale : 1 : 1 (A3 format)                                                                                 |
|                                                                                                                                  |      |       |                    | Checked         | 20/06/2019 | Roberto La Capruccia                | Dimensions without tolerance indication:<br>ISO 2768 - m                                                  |
|                                                                                                                                  |      |       |                    | Approved        | 20/06/2019 | Roberto La Capruccia                |  Units mm Page 1 / 2 |

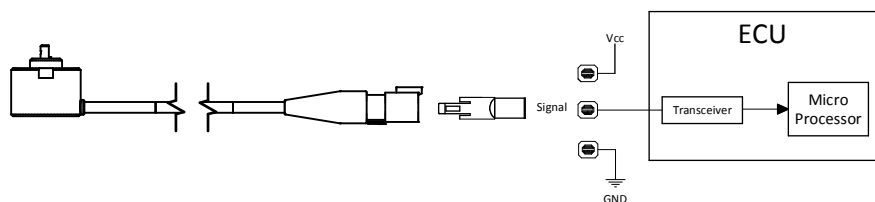
## ■ Output Signal



## ■ Functional Scheme



## ■ Typical Application



## ■ Technical Specifications

|               | Specific                            | Value                                                                                                                                  | Standard Reference                                                |
|---------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Electrical    | Power supply (Vcc)                  | Min 4.5V - Max 5.5V                                                                                                                    | ELEN PDV Rev. 3 - 5.1                                             |
|               | EMC Compatibility                   | BCI - Class "A" - 100mA ; 1~400 MHz                                                                                                    | ISO 11452-4                                                       |
|               | EMC Compatibility - Magn.Field Imm. | 15Hz ÷ 150 kHz                                                                                                                         | ISO 11452-8 : 2007                                                |
|               | Reverse Polarity Protection         | -5.5V For 1h (-20V For 1h)                                                                                                             | ELEN PDV Rev. 3 - 5.3                                             |
|               | Overvoltage Protection              | 6.5V For 1h (20V 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                                             |
|               | Supply Current (No Load)            | 60 mA Max                                                                                                                              | -                                                                 |
|               | Signal Output                       | CAN J1939                                                                                                                              | -                                                                 |
|               | Dielectric Rigidity                 | 750V@50Hz For 60s                                                                                                                      | ELEN PDV Rev. 3 - 5.11                                            |
|               | ESD Protection                      | ±8kV Contact , ±15 kV Air                                                                                                              | EN 61000-4-2                                                      |
|               | Insulation Resitance                | 1000 MOhm@500V                                                                                                                         | ELEN PDV Rev. 3 - 5.10                                            |
| Environmental | Temperature Operating Voltage       | 5.5V@125°C For 1h                                                                                                                      | ELEN PDV Rev. 3 - 5.8                                             |
|               | Resolution                          | < 0.1°                                                                                                                                 | -                                                                 |
|               | Linearity                           | < ±1%                                                                                                                                  | -                                                                 |
|               | Operating Temperature               | -40°C ÷ +125°C                                                                                                                         | IEC 60068-2-1 ; IEC 60068-2-2 ;<br>IEC 60068-2-30 ; IEC60068-2-14 |
|               | Storage Temperature                 | -40°C ÷ +125°C                                                                                                                         | IEC 60068-2-1 ; IEC 60068-2-2 ;<br>IEC 60068-2-30 ; IEC60068-2-14 |
|               | Degree Of Protection                | IP 67                                                                                                                                  | IEC 60529                                                         |
|               | Vibrations Resistance - Sine        | (5÷12.87) Hz@dis±15mm ,(12,87÷200)<br>Hz@dis<±15mm@5g, 1 Octave/min , 20<br>Sweep Cycles                                               | IEC 60068-2-6<br>ISO15998                                         |
| Mech.         | 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<br>For Axis | IEC 60068-2-6<br>ENS0310 Rev.J                                    |
|               | Body Material                       | Aluminium With Antioxidant Treatment                                                                                                   | -                                                                 |
|               | Shaft Material                      | Stainless Steel                                                                                                                        | -                                                                 |