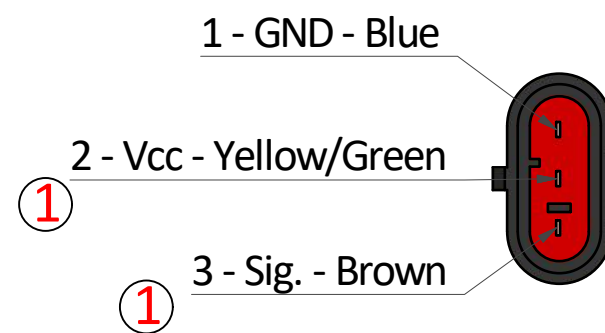
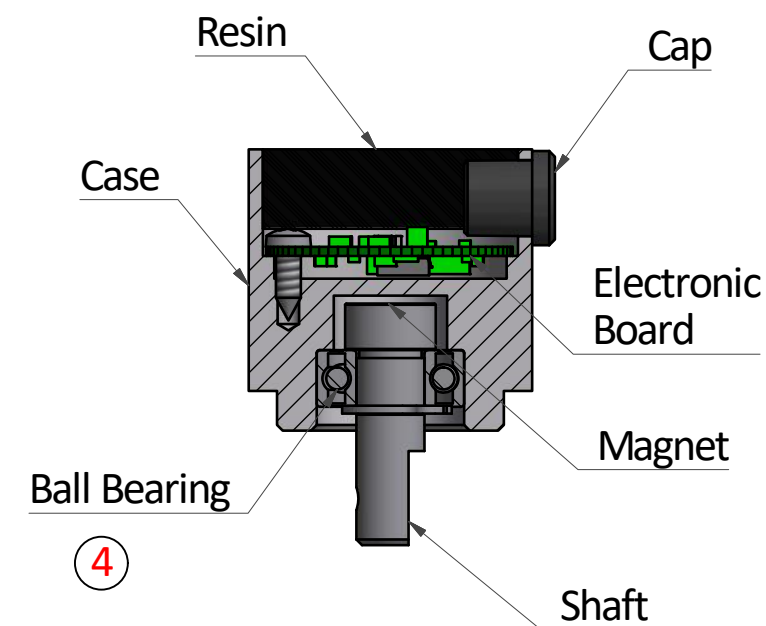
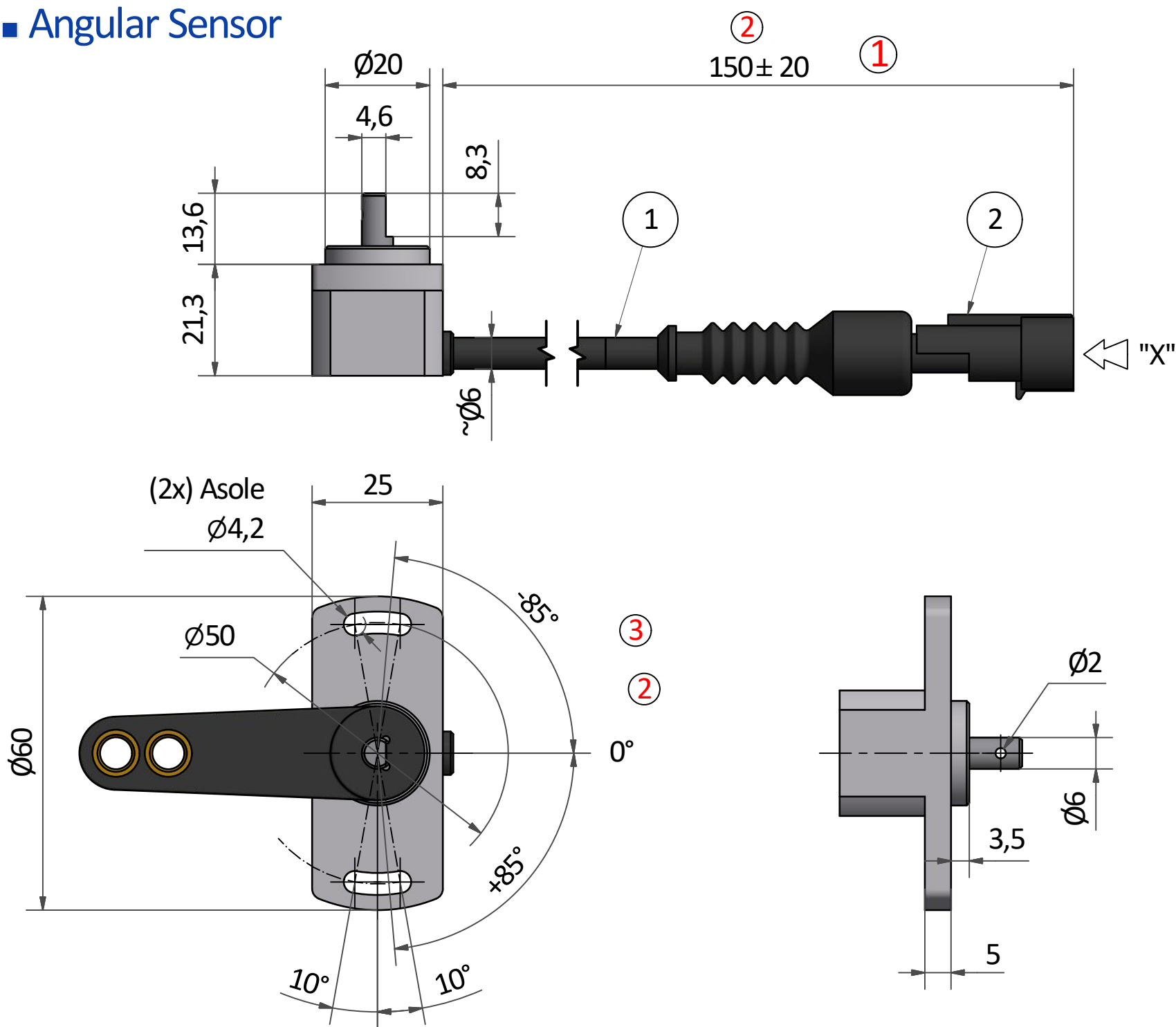
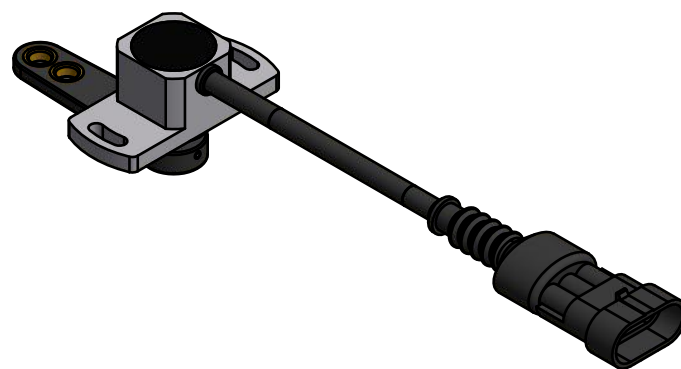
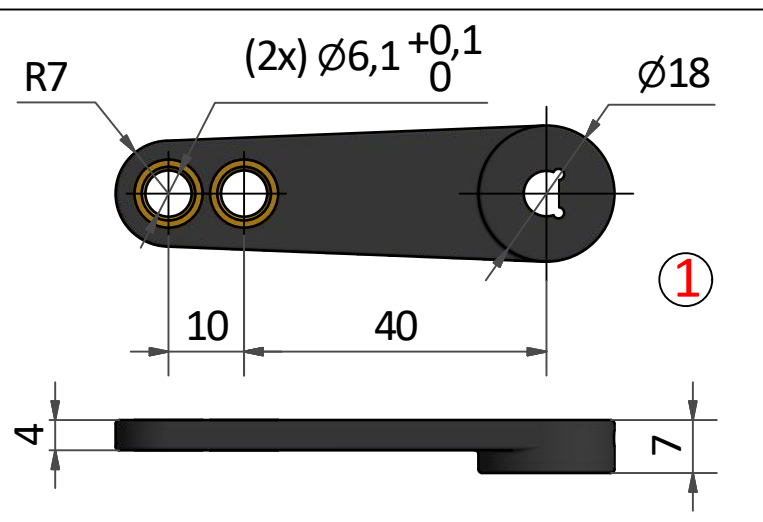


■ Angular Sensor



View From "X"

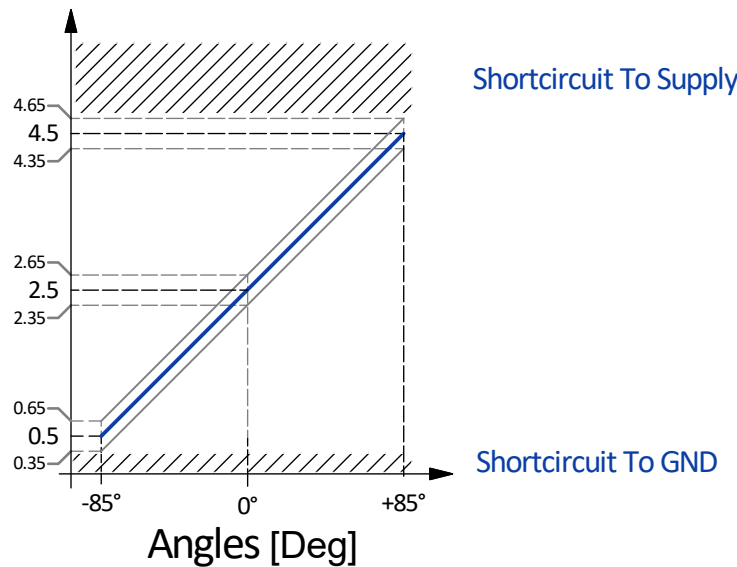


| Ref. | Description                               | Operating Temperature (°C) |
|------|-------------------------------------------|----------------------------|
| 1    | Cable HT 105°C                            | -25 / +105                 |
| 2    | 3 Pin Tyco SuperSeal 1.5 Series Connector | -40 / +125                 |

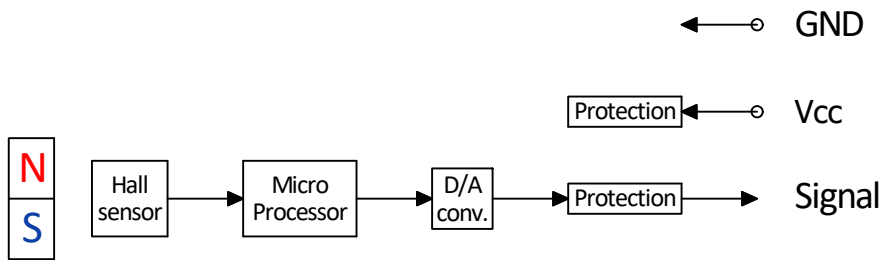
|                                                                                                                                                                             |            |       |                                                 |                 |            |                                     |                                                                                       |                   |            |      |               |   |            |      |                    |         |            |                      |                                                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|-------------------------------------------------|-----------------|------------|-------------------------------------|---------------------------------------------------------------------------------------|-------------------|------------|------|---------------|---|------------|------|--------------------|---------|------------|----------------------|-------------------------------------------------------|--|
|   |            |       |                                                 | www.elensrl.com |            | Elen Srl - Garbagnate Milanese (MI) |                                                                                       |                   |            |      |               |   |            |      |                    |         |            |                      |                                                       |  |
|                                                                                                                                                                             |            |       |                                                 | Part Number:    |            | AA020575-22                         |                                                                                       |                   |            |      |               |   |            |      |                    |         |            |                      |                                                       |  |
|                                                                                                                                                                             |            |       |                                                 | Description:    |            | Angular Sensor 5V Single Signal     |                                                                                       |                   |            |      |               |   |            |      |                    |         |            |                      |                                                       |  |
| Rev.                                                                                                                                                                        | Date       | Sign. | Review Description                              | Designed        | 06/06/2019 | Mirko Luperi                        | Scale :                                                                               | 1 : 1 (A3 format) |            |      |               |   |            |      |                    |         |            |                      |                                                       |  |
| 1                                                                                                                                                                           | 11/06/2019 | ML    | Added Lever and Updated Cable Length&Pins.Color | 2               | 01/08/2019 | H.T.                                | ±60° was ±90° - Cable Length 150 was 110                                              | 3                 | 02/09/2019 | H.T. | ±85° was ±60° | 4 | 21/02/2022 | M.M. | Added Ball Bearing | Checked | 06/06/2019 | Roberto La Capruccia | Dimensions without tolerance indication: ISO 2768 - m |  |
|                                                                                                                                                                             |            |       |                                                 | Approved        | 06/06/2019 | Roberto La Capruccia                |  | Units mm          | Page 1 / 2 |      |               |   |            |      |                    |         |            |                      |                                                       |  |

■ Output Signal

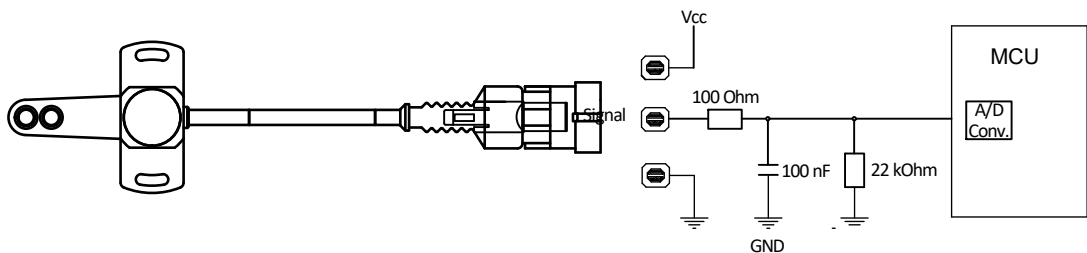
Signal (V) @Vin = 5V



■ 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                                             |
|               | Overload Protection                 | 1,2mA For 1h (20mA For 1h)                                                                                                          | ELEN PDV Rev. 3 - 5.6                                             |
|               | 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                                             |
|               | Max Load Recommended Output         | > 4.7 kOhm                                                                                                                          | -                                                                 |
|               | Supply Current (No Load)            | 15 mA Max                                                                                                                           | -                                                                 |
|               | Signal Output                       | 0.5V@-85° ÷ 4.5V@+85° (2.5V @0)                                                                                                     | -                                                                 |
|               | Output Current                      | 1 mA Max                                                                                                                            | -                                                                 |
|               | 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                                            |
|               | Temperature Operating Voltage       | 5.5V@105°C For 1h                                                                                                                   | ELEN PDV Rev. 3 - 5.8                                             |
| Environmental | Resolution                          | < 0.1°                                                                                                                              | -                                                                 |
|               | Linearity                           | < ±1%                                                                                                                               | -                                                                 |
|               | Operating Temperature               | -40°C ÷ +105°C                                                                                                                      | IEC 60068-2-1 ; IEC 60068-2-2 ;<br>IEC 60068-2-30 ; IEC60068-2-14 |
|               | Storage Temperature                 | -40°C ÷ +115°C                                                                                                                      | IEC 60068-2-1 ; IEC 60068-2-2 ;<br>IEC 60068-2-30 ; IEC60068-2-14 |
|               | Degree Of Protection                | IP 67                                                                                                                               | IEC 60529                                                         |
| Mech.         | Vibrations Resistance - Sine        | (5÷12.87) Hz@dis±15mm ,(12,87÷200) Hz@dis<±15mm@5g, 1 Octave/min , 20 Sweep Cycles                                                  | IEC 60068-2-6<br>ISO15998                                         |
|               | 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 | IEC 60068-2-6<br>ENS0310 Rev.J                                    |
|               | Body Material                       | Aluminium With Antioxidant Treatment                                                                                                | -                                                                 |
|               | Shaft Material                      | Stainless Steel                                                                                                                     | -                                                                 |
|               | Lever Material                      | PA66 + 30%GF                                                                                                                        | -                                                                 |