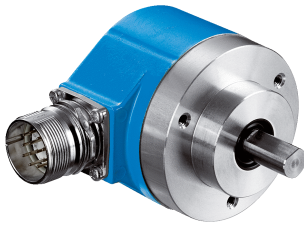




## ARS60

Absolute encoder with SSI or parallel interface for numerous applications  
Absolute encoder with SSI or parallel interface for numerous applications

**SICK**  
Sensor Intelligence.



Technical data overview

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|--------------------------------|-------|--------------------|---------------------|----------------------|---------------------|--|-------|--|----------------|--|-------|--|----------------|--|-------|--|-------|--|-------|--|----------------|--|--------|--|-----------------|--|--------|--|--------|--|--------|--|-----------------|--|-------------|--|-------------|--|----|--|-------|--|-------|--|-------|--|--------|--|-------|--|-------|--|-------|--|-------|--|--------|--|--------|--|--------|--|--------|
| <b>Encoder design</b>                                   | Singleturn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| <b>Shaft type</b>                                       | Solid shaft, Servo flange<br>Solid shaft, face mount flange<br>Blind hollow shaft<br>Through hollow shaft                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| <b>Shaft diameter</b>                                   | <table border="0"> <tr> <td>Solid shaft, Servo flange</td> <td>6 mm</td> </tr> <tr> <td>Solid shaft, face mount flange</td> <td>10 mm</td> </tr> <tr> <td>Blind hollow shaft</td> <td>15 mm <sup>1)</sup></td> </tr> <tr> <td>Through hollow shaft</td> <td>12 mm <sup>2)</sup></td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Solid shaft, Servo flange | 6 mm | Solid shaft, face mount flange | 10 mm | Blind hollow shaft | 15 mm <sup>1)</sup> | Through hollow shaft | 12 mm <sup>2)</sup> |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| Solid shaft, Servo flange                               | 6 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| Solid shaft, face mount flange                          | 10 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| Blind hollow shaft                                      | 15 mm <sup>1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| Through hollow shaft                                    | 12 mm <sup>2)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| <b>Connection type</b>                                  | Male connector, M23, 12-pin, radial<br>Male connector, M23, 12-pin, axial<br>Cable, 11-wire, radial<br>Cable, 11-wire, axial<br>Male connector, M23, 21-pin, radial<br>Male connector, M23, 21-pin, axial<br>Cable, 22-wire, radial<br>Cable, 22-wire, axial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| <b>Communication interface</b>                          | SSI / parallel data world (depending on type)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
| <b>Number of steps per revolution (max. resolution)</b> | <table border="0"> <tr> <td>SSI</td> <td>360</td> </tr> <tr> <td></td> <td>2,880</td> </tr> <tr> <td></td> <td>720</td> </tr> <tr> <td></td> <td>1,024 (10 bit)</td> </tr> <tr> <td></td> <td>1,892</td> </tr> <tr> <td></td> <td>2,048 (11 bit)</td> </tr> <tr> <td></td> <td>3,600</td> </tr> <tr> <td></td> <td>4,096 (12 bit)</td> </tr> <tr> <td></td> <td>5,000</td> </tr> <tr> <td></td> <td>7,200</td> </tr> <tr> <td></td> <td>8,129</td> </tr> <tr> <td></td> <td>8,192 (13 bit)</td> </tr> <tr> <td></td> <td>10,000</td> </tr> <tr> <td></td> <td>16,384 (14 bit)</td> </tr> <tr> <td></td> <td>18,000</td> </tr> <tr> <td></td> <td>21,600</td> </tr> <tr> <td></td> <td>32,767</td> </tr> <tr> <td></td> <td>32,768 (15 bit)</td> </tr> <tr> <td></td> <td>512 (9 bit)</td> </tr> <tr> <td></td> <td>256 (8 bit)</td> </tr> <tr> <td></td> <td>72</td> </tr> <tr> <td></td> <td>1,000</td> </tr> <tr> <td></td> <td>1,440</td> </tr> <tr> <td></td> <td>4,000</td> </tr> <tr> <td></td> <td>14,400</td> </tr> <tr> <td></td> <td>2,000</td> </tr> <tr> <td></td> <td>8,640</td> </tr> <tr> <td></td> <td>9,192</td> </tr> <tr> <td></td> <td>9,360</td> </tr> <tr> <td></td> <td>12,800</td> </tr> <tr> <td></td> <td>18,080</td> </tr> <tr> <td></td> <td>28,800</td> </tr> <tr> <td></td> <td>32,000</td> </tr> </table> | SSI                       | 360  |                                | 2,880 |                    | 720                 |                      | 1,024 (10 bit)      |  | 1,892 |  | 2,048 (11 bit) |  | 3,600 |  | 4,096 (12 bit) |  | 5,000 |  | 7,200 |  | 8,129 |  | 8,192 (13 bit) |  | 10,000 |  | 16,384 (14 bit) |  | 18,000 |  | 21,600 |  | 32,767 |  | 32,768 (15 bit) |  | 512 (9 bit) |  | 256 (8 bit) |  | 72 |  | 1,000 |  | 1,440 |  | 4,000 |  | 14,400 |  | 2,000 |  | 8,640 |  | 9,192 |  | 9,360 |  | 12,800 |  | 18,080 |  | 28,800 |  | 32,000 |
| SSI                                                     | 360                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 2,880                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 720                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 1,024 (10 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 1,892                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 2,048 (11 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 3,600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 4,096 (12 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 5,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 7,200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 8,129                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 8,192 (13 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 10,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 16,384 (14 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 18,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 21,600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 32,767                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 32,768 (15 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 512 (9 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 256 (8 bit)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 72                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 1,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 1,440                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 4,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 14,400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 2,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 8,640                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 9,192                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 9,360                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 12,800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 18,080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 28,800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |
|                                                         | 32,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |      |                                |       |                    |                     |                      |                     |  |       |  |                |  |       |  |                |  |       |  |       |  |       |  |                |  |        |  |                 |  |        |  |        |  |        |  |                 |  |             |  |             |  |    |  |       |  |       |  |       |  |        |  |       |  |       |  |       |  |       |  |        |  |        |  |        |  |        |

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

<sup>2)</sup> 12 mm requires the corresponding collet, this and other collets for 6, 8, 10 mm as well as 1/4", 3/8" and 1/2" need to be ordered separately as accessories.

<sup>3)</sup> With mating connector fitted.

|                    |                 |
|--------------------|-----------------|
|                    | 32,400          |
|                    | 32,766          |
|                    | 500             |
|                    | 6,000           |
|                    | 7,400           |
|                    | 200             |
|                    | 4,320           |
|                    | 10              |
|                    | 1,576           |
|                    | 30,000          |
|                    | 8,196           |
|                    | 36              |
|                    | 1,638           |
|                    | 4,086           |
|                    | 9,000           |
|                    | 24,576          |
|                    | 28,672          |
|                    | 22,528          |
| Parallel data word | 800             |
|                    | 2,880           |
|                    | 9               |
|                    | 360             |
|                    | 256 (8 bit)     |
|                    | 1,024 (10 bit)  |
|                    | 512 (9 bit)     |
|                    | 2,000           |
|                    | 4,096 (12 bit)  |
|                    | 500             |
|                    | 5,000           |
|                    | 720             |
|                    | 8,192 (13 bit)  |
|                    | 32,768 (15 bit) |
|                    | 2,048 (11 bit)  |
|                    | 3,600           |
|                    | 10,000          |
|                    | 32,767          |
|                    | 15              |
|                    | 16,384 (14 bit) |
|                    | 64              |
|                    | 1,000           |
|                    | 7,200           |
|                    | 860             |
|                    | 2,500           |
|                    | 18,000          |
|                    | 8 (3 bit)       |
|                    | 12              |
|                    | 6,017           |
|                    | 1,440           |
|                    | 1,375           |
|                    | 18              |
|                    | 48              |
|                    | 24              |
|                    | 120             |
|                    | 34              |
|                    | 128 (7 bit)     |
|                    | 100             |
|                    | 180             |
|                    | 400             |
|                    | 454             |
|                    | 452             |
|                    | 8,100           |
|                    | 11,520          |
|                    | 1,360           |

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

<sup>2)</sup> 12 mm requires the corresponding collet, this and other collets for 6, 8, 10 mm as well as 1/4", 3/8" and 1/2" need to be ordered separately as accessories.

<sup>3)</sup> With mating connector fitted.

|                                                                                 |                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                 | 4,090<br>7,920<br>576<br>3,621<br>64 (6 bit)<br>2,534<br>4,000<br>14,400<br>10,240<br>19<br>200<br>72<br>232<br>8,000<br>7,999<br>40<br>16 (4 bit)<br>42<br>2,280<br>2,400<br>24,000<br>36<br>5,760<br>5,808<br>21,600<br>49<br>144<br>900<br>60<br>54<br>78<br>1,924<br>22,800 |
| <b>Max. resolution (number of steps per revolution x number of revolutions)</b> |                                                                                                                                                                                                                                                                                 |
| <b>Operating temperature range</b>                                              | -20 °C ... +85 °C                                                                                                                                                                                                                                                               |
| <b>Enclosure rating</b>                                                         | IP65<br>(IEC 60529)<br>Male connector <sup>3)</sup><br>IP66<br>(IEC 60529)<br>Cable<br>IP64<br>(IEC 60529)<br>Male connector <sup>3)</sup><br>IP64<br>(IEC 60529)<br>Cable                                                                                                      |

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

<sup>2)</sup> 12 mm requires the corresponding collet, this and other collets for 6, 8, 10 mm as well as 1/4", 3/8" and 1/2" need to be ordered separately as accessories.

<sup>3)</sup> With mating connector fitted.

### Product description

The modular setup of its CoreTech technology enables the compact ARS60 absolute singleturn encoder to provide a customized solution for all applications. All common mechanical variants are available with any number of increments between 2 and 32,768 and are either equipped with an SSI or parallel output, making the ARS60 a universal solution for nearly any application requirements

## At a glance

- Absolute singleturn encoder
- Resolution: up to 15 bits (32,768 increments)
- Electrical interface: SSI with gray code type or gray capped
- Electrical interface: Parallel with gray, gray capped, binary, BCD code type
- Zero-set function
- Mechanical interfaces: face mount flange, servo flange, blind and through hollow shaft
- Enclosure rating: Up to IP66

## Your benefits

- Freely programmable resolution (up to 15 bits)
- 
- Easy zero adjustment directly on the encoder by pressing a button or via sub cable (cable version)
- 
- Suitable for all mounting methods thanks to the individual mechanical interfaces
- 
- A versatile base model thanks to the easily exchangeable collets for the blind hollow shaft and through hollow shaft
- 
- Versions with cable and M23 connector connection in axial and radial designs available

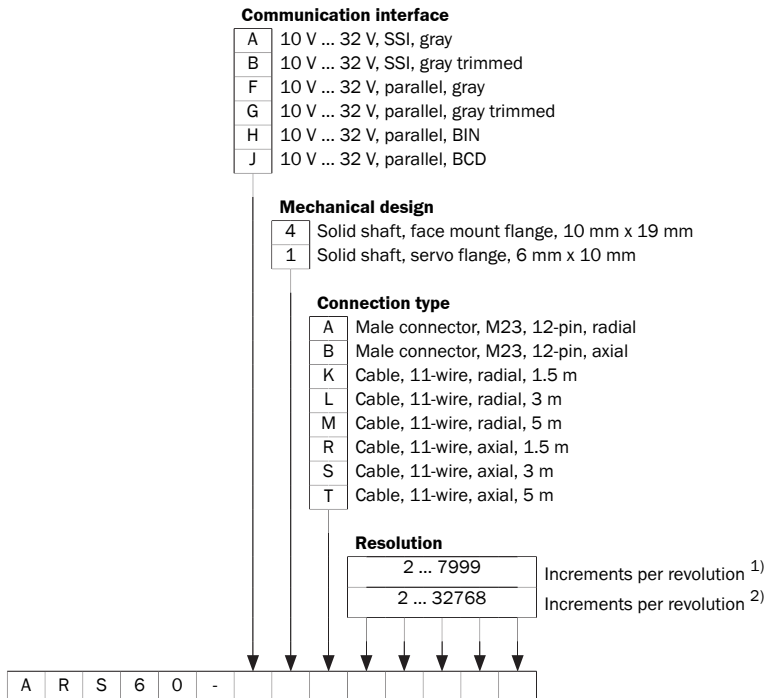
## Fields of application

- Electronics and solar industries
- Textile machinery
- Packaging industry
- High-bay warehouses
- Woodworking machines
- Machine construction
- Automotive industry
- Material handling

Type code

Other models and accessories → [www.sick.com/ARS60](http://www.sick.com/ARS60)

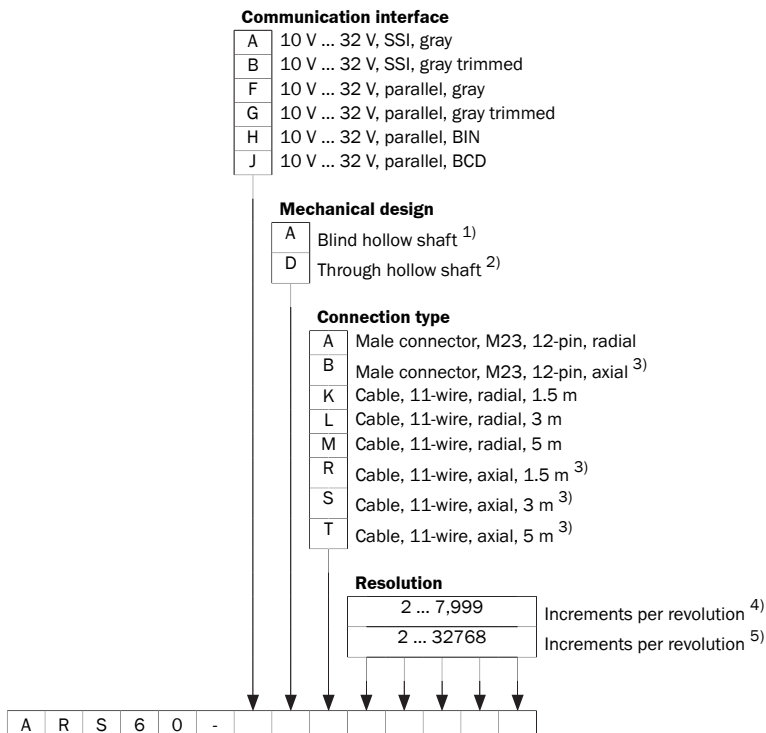
Solid shaft



<sup>1)</sup> Communication interface J: Increments per revolution 2 ... 7999 possible.

<sup>2)</sup> Communication interface A, B, F, G and H: Increments per revolution 2 ... 32768 possible.

Hollow shaft



- 1) Order collets for 6, 8, 10, 12 and 14 mm as well as 1/4", 3/8" and 1/2" extra as accessories (see recommended accessories). No collets are necessary for 15 mm shaft diameter.
- 2) Order collets for 6, 8, 10 and 12 mm as well as 1/4", 3/8" and 1/2" extra as accessories (see recommended accessories). No collets are necessary for 15 mm shaft diameter.
- 3) Only for blind hollow shaft mechanical version.
- 4) Communication interface J: Increments per revolution 2 ... 7,999 possible.
- 5) Communication interface A, B, F, G and H: Increments per revolution 2 ... 32768 possible.

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)