



*SKF motor encoder units – sizes from 6202 to 6209*

## SKF motor encoder units

*Uniquely suited for most AC motors, SKF motor encoder units are available for shaft diameters from 15 to 45 mm, with the connector that best fits your application.*

### The SKF solution

Modern AC motors require encoders to continuously monitor speed, position and direction. These encoders, which are typically external to the motor, are exposed to existing environmental conditions, which in some cases, can have a significant impact on service life.

SKF motor encoders, however, are mechatronic units that combine sensor and bearing technology. They are mounted directly inside the motor and require only 6 mm extra space (axial direction). The sensor body, impulse ring and bearing are mechanically attached to each other, forming a compact, integrated, ready-to-mount unit that is shielded from external influences.

SKF encoders, which can be installed on the drive or driven side of asynchronous motors, provide a medium resolution signal between 32 and 80 digital pulses per revolution. They can accurately detect speeds from zero to 20 000 r/min.

### Features

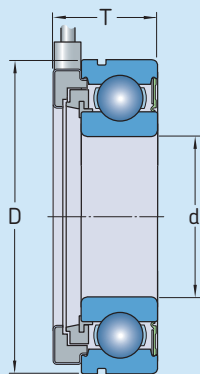
- monitors speed, position and direction of the shaft
- accurately detects speeds from zero to 20 000 r/min
- wide range of cable length and connectors available.

### Benefits

- simple to mount
- reduces number of components
- compact design
- designed to be robust and reliable.

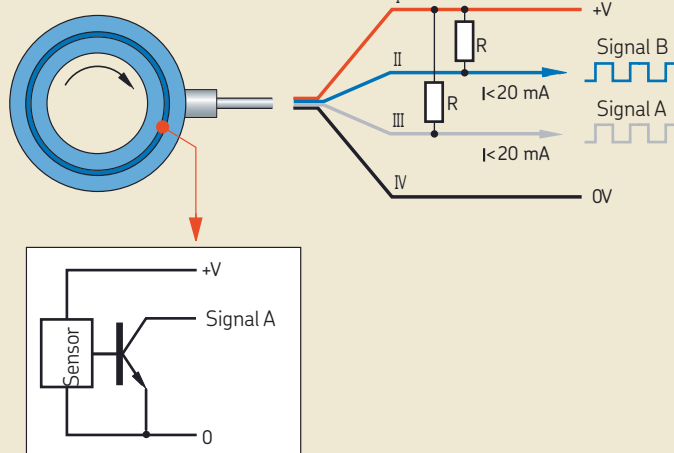


**Motor encoder unit**



| Principal dimensions |    |    | Rotational speed<br>max | Electronic specifications |                 |            |             | Designation*          |
|----------------------|----|----|-------------------------|---------------------------|-----------------|------------|-------------|-----------------------|
| d                    | D  | T  |                         | No. of pulses             | Period accuracy | Duty cycle | Phase shift |                       |
| mm                   | mm | mm | r/min                   | -                         | %               | -          | degrees     | -                     |
| 15                   | 35 | 17 | 13 000                  | 32                        | ± 3             | 50 ± 10    | 90 ± 30     | BMB-6202/032S2/EA002A |
| 20                   | 47 | 20 | 10 000                  | 48                        | ± 3             | 50 ± 10    | 90 ± 30     | BMB-6204/048S2/EA002A |
| 25                   | 52 | 21 | 8 500                   | 48                        | ± 3             | 50 ± 10    | 90 ± 30     | BMB-6205/048S2/EA002A |
| 30                   | 62 | 22 | 7 500                   | 64                        | ± 4             | 50 ± 10    | 90 ± 45     | BMB-6206/064S2/EA002A |
| 40                   | 80 | 24 | 5 600                   | 80                        | ± 5             | 50 ± 10    | 90 ± 45     | BMB-6208/080S2/EB002A |
| 45                   | 85 | 25 | 5 000                   | 80                        | ± 5             | 50 ± 10    | 90 ± 45     | BMB-6209/080S2/EB002A |

\* For USA replace "E" with "U", e.g. BMB-6202/032S2/UA002A



Circuit diagram

Table 1

| Voltage | Recommended resistors R |
|---------|-------------------------|
| +V DC   | Ω                       |
| 5       | 270                     |
| 9       | 470                     |
| 12      | 680                     |
| 24      | 1 500                   |

Electrical parameters

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