



Standard Encoder EE 63 EE 71

Optical incremental shaft encoders with inch mounting dimensions available with **Sine/Cosine Signals**

Centering diameter 31,75 mm = 1 1/4Zoll
 Shaft diameter 9,52 mm = 3/8Zoll
 EE 63 with servoflange, EE 71 with square flange

Resolution

| Resolution (Pulses/Revolution): | | | |
|---|------|------|------|
| 1 - 6000 | 7000 | 7200 | 7500 |
| 8000 | 8192 | 9000 | 9144 |
| 10000 | | | |
| Every other resolution up to 500 000 on request | | | |

Type explanation

| EE 63-6-5000-05-D-RM10 | |
|-------------------------------|---|
| Encoder type | Incremental |
| Flange diameter | ø 63 mm |
| Case diameter | ø 58 mm |
| Number of channels | 3 = A + B + M 6 = AA + BB + MM |
| Resolutions | xxxx = Impulse pro Umdrehung |
| Supply voltage | 05 = 5 VDC ± 5% 30 = 10..30 VDC |
| Output driver | D-RS422 P S |
| Position of connection | R S |
| Connector | C07 = 7 pins Binder C12 = 12 pins M23 M10 = 10 pins MIL |
| Shaft diameter | ø 10 mm |

Technical data

Mechanical data

| | |
|----------------------|---|
| Rotational speed | $\leq 12000 \text{ min}^{-1}$ |
| Torque | $\leq 0,3 \text{ Ncm}$ |
| Breakaway torque | $\leq 0,1 \text{ Ncm}$ |
| shaft loading | $\leq 20 \text{ N radial}$ $\leq 10 \text{ N axial}$ |
| Angular acceleration | $\leq 10^4 \text{ rad/sec}^2$ |
| Weight | $\leq 0,6 \text{ kg}$ |

Environmental conditions

| | |
|-----------------------|---|
| Vibration | 200 ms^{-2} (20 ... 2000 Hz) |
| Shock | 2000 ms^{-2} (11 ms) |
| Operating temperature | 0 .. +80°C standard -20 .. +110°C optional -42 .. +110°C optional |
| Atmospheric humidity | $\leq 85\% \text{ r.h.}$ |
| Protection class | IP 65 (DIN 40050/IEC 144) IP 68 (optional) |

Electrical data

| | |
|------------------------------|--|
| Scanning type | Optical, without contact |
| Transmitter, infrared | LED |
| Receiver | Photo-Transistor |
| Measurement accuracy | $\pm 1'$ standard $\pm 10''$ optional |
| Supply voltage | $V_{cc} = 5 \text{ VDC} \pm 5\%$ $V_{cc} = 10...30 \text{ VDC}$ |
| Power consumption | 200 mA max |
| Output frequency | $\leq 300 \text{ kHz}$ (Output D) $\leq 160 \text{ kHz}$ (Output P, S) |
| Signal level | High $> V_{cc} - 2 \text{ V}$ (Output D, P) Low $< 0,5 \text{ V}$ (Output D, P) Analog 1 V_{ss} (Output S) |
| Load capacity of the outputs | 20 mA |

Cable 3 channels

| Wire colour | Signal |
|-------------|----------|
| Brown | +Vcc |
| Grey | 0 V GND |
| Green | Signal A |
| White | Signal B |
| Yellow | Signal M |
| Shield | N.C. |

Cable 6 channels

| Wire colour | Signal |
|---------------------------|--------------------------|
| Brown 0,5 mm ² | +Vcc |
| Blue | +Vcc Sense ¹⁾ |
| White 0,5 mm ² | 0 V GND |
| White | 0 V Sense |
| Brown | Signal A+ |
| Green | Signal A- |
| Grey | Signal B+ |
| Pink | Signal B- |
| Red | Signal M+ |
| Black | Signal M- |
| Shield | N.C. |

1) nur bei Vcc = 5 VDC TTL

Connector 7 pins Binder

| Connection | Signal |
|------------|----------|
| Pin 1 | 0 V GND |
| Pin 2 | N.C. |
| Pin 3 | Signal A |
| Pin 4 | Signal B |
| Pin 5 | +Vcc |
| Pin 6 | Signal M |
| Pin 7 | Shield |

Connector 12 pins M23

| Connection | Signal |
|------------|--------------------------|
| Pin 1 | Signal B- ¹⁾ |
| Pin 2 | +Vcc Sense ²⁾ |
| Pin 3 | Signal M+ |
| Pin 4 | Signal M- ¹⁾ |
| Pin 5 | Signal A+ |
| Pin 6 | Signal A- ¹⁾ |
| Pin 7 | N.C. |
| Pin 8 | Signal B+ |
| Pin 9 | Shield |
| Pin 10 | 0 V GND |
| Pin 11 | 0 V Sense |
| Pin 12 | +Vcc |

1) nur bei 6 Ausgangskanälen

2) nur bei Vcc = 5 VDC TTL

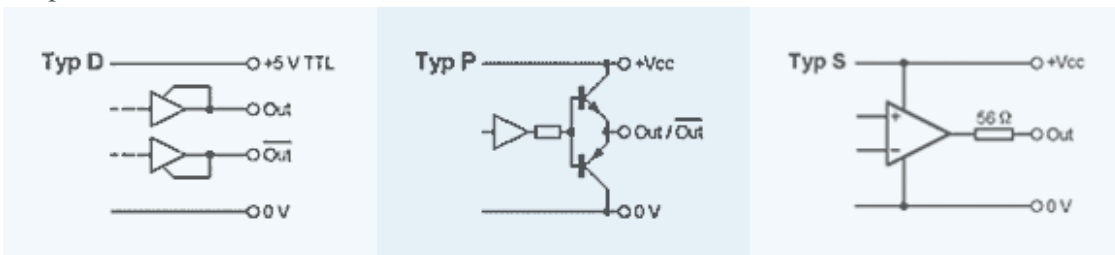
Connector 10 pins MIL

Connection

| Connection | Signal |
|------------|-------------------------|
| Pin A | Signal B+ |
| Pin B | Signal A+ |
| Pin C | Signal M+ |
| Pin D | +Vcc |
| Pin E | +Vcc Sense |
| Pin F | 0 V GND |
| Pin G | Shield |
| Pin H | Signal B- ¹⁾ |
| Pin I | Signal A- ¹⁾ |
| Pin J | Signal M- ¹⁾ |

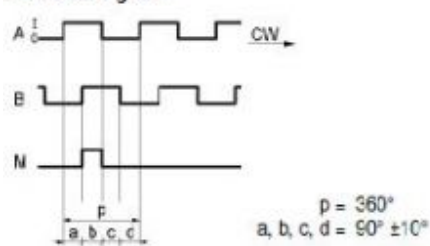
1) nur bei 6 Ausgangskanälen

Output driver

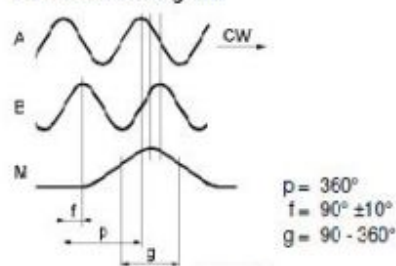


Output channels / Output signals

Rechteck-Signale



Sinus-/Cosinus-Signale



E519-207
Änderungen vorbehalten / Soumis aux changements / Subject to change

Outline drawing

