

## 기술 데이터 시트

## 엔코더 시리즈 정보

품목 번호: 90000440

EI30-P 058 HO

### 내용

- 기술 데이터
- 제품 키워드



그림과 차이가 날 수 있습니다

|            |                   |
|------------|-------------------|
| 인코더_시리즈    | EI 058 HO         |
| 인코더_기본 원리  | 증분형               |
| 인코더_작동 원리  | 광학 보간             |
| 인코더_플랜지 직경 | Ø 58mm            |
| 인코더_플랜지 유형 | 중공축               |
| 인코더_실축/중공축 | 중공축               |
| 인코더_축 직경   | Ø 10mm            |
|            | Ø 12mm            |
|            | Ø 14mm            |
|            | Ø 15mm            |
|            | Ø 6mm             |
|            | Ø 7mm             |
|            | Ø 8mm             |
| 인코더_공급전압   | 10 ~ 30 V DC      |
|            | 4.75 ... 5.5 V DC |
|            | 5 ~ 30V DC        |
| 인코더_출력 회로  | HTL               |
|            | TTL               |
|            | TTL, RS422 호환     |
|            | 반전 1 Vss Sin/Cos  |
|            | 반전 HTL            |
| 인코더_펄스 수   | 10000I/U          |
|            | 1000I/U           |
|            | 10240I/U          |
|            | 12500I/U          |
|            | 16384I/U          |
|            | 20000I/U          |
|            | 2000I/U           |
|            | 20480I/U          |
|            | 25000I/U          |
|            | 2500I/U           |
|            | 4000I/U           |
|            | 4096I/U           |
|            | 5000I/U           |
|            | 8000I/U           |
|            | 8192I/U           |

# 기술 데이터

## Encoder EI30 P 058 HO

### Resolution

Pulses per revolution PPR up to 25000 PPR

### Mechanical Data

|                                |                                                                                               |
|--------------------------------|-----------------------------------------------------------------------------------------------|
| Flange                         | hollow shaft (blind-bored)                                                                    |
| Flange material                | aluminum                                                                                      |
| Housing material               | die cast aluminum, powder coated                                                              |
| Torque supports                | incl. 1 torque support                                                                        |
| - 1. Spring plate compensation | axial: $\pm 0.8$ mm [0.0315"], radial: $\pm 0.2$ mm [0.0079"]                                 |
| - Max. operating speed         | 6000 rpm up to max. protection rating +60 °C                                                  |
| - 2. Cylinder pin 4 mm         | needs accessories                                                                             |
| - Compensation                 | axial: $\pm 0.5$ mm [0.0197"], radial: $\pm 1.5$ mm [0.0591"], Max. operating speed: 3000 rpm |
| Flange diameter                | $\varnothing$ 58 mm [ $\varnothing$ 2.283"]                                                   |

### Shaft(s)

|                 |                                                       |
|-----------------|-------------------------------------------------------|
| Shaft material  | stainless steel                                       |
| Starting torque | approx. 2.2 Ncm [3.115 in-ozf] at ambient temperature |
| Fixing          | permanently attached clamping ring                    |

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 6 mm [ $\varnothing$ 0.236"] |
| Advice                                | with adapter sleeve                        |
| Shaft length                          | L: 44.5 mm [1.752"]                        |
| Insertion depth min.                  | 11 mm [0.433"]                             |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                            |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                            |

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 6.35 mm [ $\varnothing$ 1/4"] Order No: 2Z |
| Advice                                | with adapter sleeve                                      |
| Shaft length                          | L: 44.5 mm [1.752"]                                      |
| Insertion depth min.                  | 11 mm [0.433"]                                           |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                                          |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                                          |

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 7 mm [ $\varnothing$ 0.276"] |
| Advice                                | with adapter sleeve                        |
| Shaft length                          | L: 44.5 mm [1.752"]                        |
| Insertion depth min.                  | 11 mm [0.433"]                             |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                            |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                            |

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 8 mm [ $\varnothing$ 0.315"] |
| Shaft length                          | L: 44.5 mm [1.752"]                        |
| Insertion depth min.                  | 11 mm [0.433"]                             |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                            |

|                                      |                 |
|--------------------------------------|-----------------|
| Max. Permissible shaft loading axial | 60 N [6.118 kp] |
|--------------------------------------|-----------------|

|                                       |                                                           |
|---------------------------------------|-----------------------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 9.525 mm [ $\varnothing$ 3/8"] Order No: 4Z |
| Advice                                | with adapter sleeve                                       |
| Shaft length                          | L: 44.5 mm [1.752"]                                       |
| Insertion depth min.                  | 11 mm [0.433"]                                            |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                                           |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                                           |

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 10 mm [ $\varnothing$ 0.394"] |
| Shaft length                          | L: 44.5 mm [1.752"]                         |
| Insertion depth min.                  | 11 mm [0.433"]                              |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                             |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                             |

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 12 mm [ $\varnothing$ 0.472"] |
| Shaft length                          | L: 44.5 mm [1.752"]                         |
| Insertion depth min.                  | 11 mm [0.433"]                              |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                             |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                             |

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 12.7 mm [ $\varnothing$ 1/2"] Order No: 3Z |
| Shaft length                          | L: 44.5 mm [1.752"]                                      |
| Insertion depth min.                  | 11 mm [0.433"]                                           |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                                          |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                                          |

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 14 mm [ $\varnothing$ 0.551"] |
| Shaft length                          | L: 44.5 mm [1.752"]                         |
| Insertion depth min.                  | 11 mm [0.433"]                              |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                             |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                             |

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| <b>Shaft</b>                          | $\varnothing$ 15 mm [ $\varnothing$ 0.591"] |
| Shaft length                          | L: 44.5 mm [1.752"]                         |
| Insertion depth min.                  | 11 mm [0.433"]                              |
| Max. Permissible shaft loading radial | 80 N [8.157 kp]                             |
| Max. Permissible shaft loading axial  | 60 N [6.118 kp]                             |

### Bearings

|                      |                                                                                                                                                                   |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bearings type        | 2 precision ball bearings                                                                                                                                         |
| Nominal service life | 1 x 10 <sup>9</sup> revs. at 100 % rated shaft load<br>1 x 10 <sup>10</sup> revs. at 40 % rated shaft load<br>1 x 10 <sup>11</sup> revs. at 20 % rated shaft load |
| Max. operating speed | 6000 rpm                                                                                                                                                          |

기술 데이터

Encoder EI30 P 058 HO

Machinery Directive: basic data safety integrity level

|                              |                                                                  |
|------------------------------|------------------------------------------------------------------|
| MTTF <sub>d</sub>            | 200 a                                                            |
| Mission time (TM)            | 25 a                                                             |
| Nominale service life (L10h) | 1 x 10 <sup>11</sup> revs. at 20 % rated shaft load and 6000 rpm |
| Diagnostic coverage (DC)     | 0 %                                                              |

Electrical Data

|                                  |                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply/Current consumption | 4,75 VDC up to 5,5 VDC: typ. 70 mA (100 mA only C3, D3)                                                                                                                   |
| Power supply/Current consumption | 5 VDC up to 30 VDC: typ. 70 mA                                                                                                                                            |
| Power supply/Current consumption | 10 VDC up to 30 VDC: typ. 70 mA (100 mA only C2, C4, D4)                                                                                                                  |
| Operating principle              | optical                                                                                                                                                                   |
| Output circuit                   | TTL<br>TTL, RS422 compatible, inv.<br>HTL<br>HTL, inv.<br>1 Vpp sin/cos                                                                                                   |
| Pulse frequency                  | TTL ≤ 5000 ppr: max. 200 kHz<br>HTL ≤ 5000 ppr: max. 200 kHz<br>TTL more than 1200 ppr: max. 2 MHz<br>HTL more than 1200 ppr: max. 600 kHz<br>1 Vpp sin/cos: max. 100 kHz |
| Channels                         | B<br>N<br>and inverted signals                                                                                                                                            |
| Load                             | max. 40 mA / channel<br>@ 1 Vpp sin/cos: min. 120 Ohm                                                                                                                     |
| Circuit protection               | circuit type C4, C6, D4, D6 only                                                                                                                                          |

Accuracy

|                    |                                                                                       |
|--------------------|---------------------------------------------------------------------------------------|
| Phase offset       | 90° ± max. 7.5 % of the period duration                                               |
| pulse-/pause-ratio | ≤5000 ppr: 50 % ± max. 7 %<br>Output circuits C2, C3, C4, D3, D4:<br>50 % ± max. 10 % |

Environmental data

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| ESD (DIN EN 61000-4-2):          | 8 kV                                      |
| Burst (DIN EN 61000-4-4):        | 2 kV                                      |
| includes EMC:                    | DIN EN 61000-6-2<br>DIN EN 61000-6-3      |
| Vibration:<br>(DIN EN 60068-2-6) | 50 m/s <sup>2</sup> (10 Hz up to 2000 Hz) |
| Shock:<br>(DIN EN 60068-2-27)    | 1000 m/s <sup>2</sup> (6 ms)              |
| Electrial Safety:                | according DIN VDE 0160                    |

Duty information

|                        |          |
|------------------------|----------|
| Customs tariff number: | 90318020 |
| Country of origin:     | Germany  |

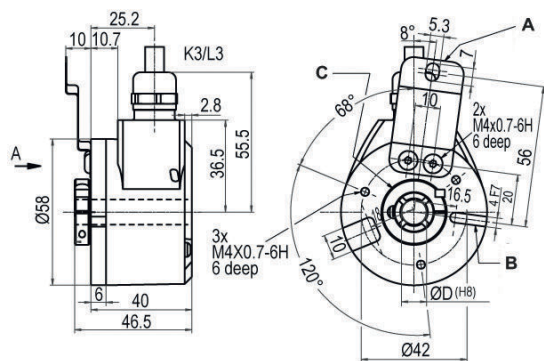
General Data

|                                 |                                                                                                                                                                                                                                                                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                          | approx. 220 g [7.76 oz]                                                                                                                                                                                                                                          |
| Connections                     | cable or connector, radial                                                                                                                                                                                                                                       |
| Protection rating<br>(EN 60529) | IP65 all around                                                                                                                                                                                                                                                  |
| Operating temperature           | Connector: -40 °C up to +85 °C,<br>Cable: -20 °C up to +80 °C<br>(Option LT: -40 °C up to +85 °C).<br>Connector: -40 °F up to +185 °F,<br>Cable: -4 °F up to +176 °F,<br>Option LT: -40 °F up to +185 °F<br>1 Vpp: -10 °C up to +70 °C<br>[+14 °F up to +158 °F] |
| Storage temperature             | Connector: -40 °C up to +85 °C,<br>Cable: -30 °C up to +80 °C<br>(Option LT: -40 °C up to +85 °C)<br>Connector: -40 °F up to +185 °F,<br>cable: -22 °F up to +176 °F,<br>(Option LT: -40 °F up to +185 °F)                                                       |

## 기술 데이터

### Encoder EI30 P 058 HO

#### Cable connection R-N, R-C, radial, with 2 m cable



- A Spring plate as torque support
- B Groove for cylinder pin as torque support DIN7-D4mm
- B Clamping ring

All dimensions in mm

#### Description

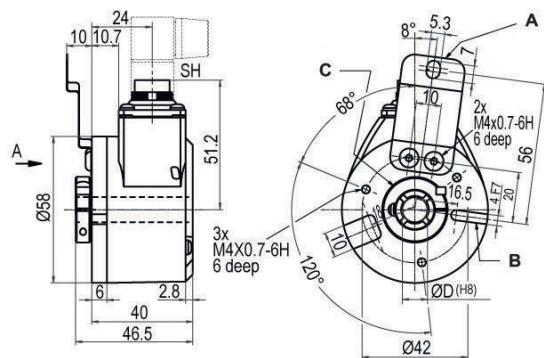
N inv. poss.

|     |                                             |   |
|-----|---------------------------------------------|---|
| R-N | radial, shield not connected                | • |
| R-C | radial, shield connected to encoder housing | • |

#### Assignments

|         | R-NR-C             | R-N, R-C                   | R-C  |
|---------|--------------------|----------------------------|------|
| Circuit | C3, C4, C5, C6, C7 | C1, C2, D3, D4, D5, D6, D7 | D8   |
| GND     | WH                 | WH                         | WH   |
| (+) Vcc | BN                 | BN                         | BN   |
| A       | GN                 | GN                         | GN   |
| B       | YE                 | YE                         | GY   |
| N       | GY                 | GY                         | -    |
|         | -                  | -                          | -    |
| A inv.  | -                  | RD                         | YE   |
| B inv.  | -                  | BK, (BU at LT)             | PK   |
| N inv.  | -                  | VT                         | -    |
| Shield  | flex               | flex                       | flex |

#### Connector (M16x0.75) R, radial, 5-, 6-, 8-, 12-pin



- A Spring plate as torque support
- B Groove for cylinder pin as torque support DIN7-D4mm
- B Clamping ring

All dimensions in mm

## 기술 데이터

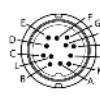
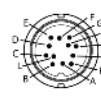
### Encoder EI30 P 058 HO

#### Description

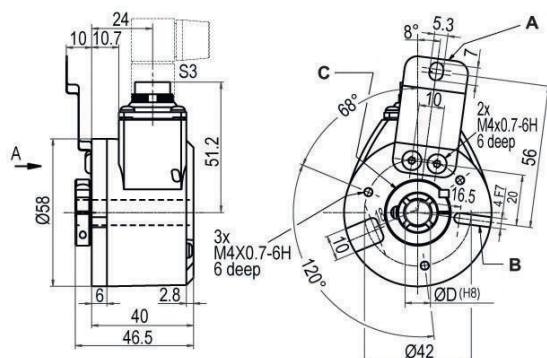
N inv. poss.

|            |                                                        |   |
|------------|--------------------------------------------------------|---|
| <b>R5</b>  | radial, 5-pin, Connector connected to encoder housing  | — |
| <b>R6</b>  | radial, 6-pin, Connector connected to encoder housing  | — |
| <b>R8</b>  | radial, 8-pin, Connector connected to encoder housing  | • |
| <b>R12</b> | radial, 12-pin, Connector connected to encoder housing | • |

#### Assignments

|                | <b>R5</b>                                                                         | <b>R6</b>                                                                         | <b>R8</b>                                                                         | <b>R8</b>                                                                         | <b>R12</b>                                                                         | <b>R12</b>                                                                          |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                | <b>5-pin</b>                                                                      | <b>6-pin</b>                                                                      | <b>8-pin</b>                                                                      | <b>8-pin</b>                                                                      | <b>12-pin</b>                                                                      | <b>12-pin</b>                                                                       |
|                |  |  |  |  |  |  |
| <b>Circuit</b> | C3, C4, C5, C6, C7                                                                | C3, C4, C5, C6, C7                                                                | C1, C2, D3, D4, D5, D6, D7                                                        | D8                                                                                | C1, C2, D3, D4, D5, D6, D7                                                         | D8                                                                                  |
| <b>GND</b>     | 1                                                                                 | 6                                                                                 | 1                                                                                 | 1                                                                                 | K, L                                                                               | K, L                                                                                |
| <b>(+) Vcc</b> | 2                                                                                 | 1                                                                                 | 2                                                                                 | 2                                                                                 | M, B                                                                               | M, B                                                                                |
| <b>A</b>       | 3                                                                                 | 2                                                                                 | 3                                                                                 | 3                                                                                 | E                                                                                  | E                                                                                   |
| <b>B</b>       | 4                                                                                 | 4                                                                                 | 4                                                                                 | 4                                                                                 | H                                                                                  | H                                                                                   |
| <b>N</b>       | 5                                                                                 | 3                                                                                 | 5                                                                                 | —                                                                                 | C                                                                                  | —                                                                                   |
| <b>—</b>       | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   |
| <b>A inv.</b>  | —                                                                                 | —                                                                                 | 6                                                                                 | 6                                                                                 | F                                                                                  | F                                                                                   |
| <b>B inv.</b>  | —                                                                                 | —                                                                                 | 7                                                                                 | 7                                                                                 | A                                                                                  | A                                                                                   |
| <b>N inv.</b>  | —                                                                                 | —                                                                                 | 8                                                                                 | —                                                                                 | D                                                                                  | —                                                                                   |
| <b>n. c.</b>   | —                                                                                 | 5                                                                                 | —                                                                                 | 5, 8                                                                              | G, J                                                                               | D, G, J                                                                             |
| <b>Shield</b>  | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   |

### Connector (M16x0.75) R7, radial, 7-pin



All dimensions in mm

- A Spring plate as torque support
- B Groove for cylinder pin as torque support DIN7-D4mm
- B Clamping ring

#### Description

N inv. poss.

|           |                                                       |   |
|-----------|-------------------------------------------------------|---|
| <b>R7</b> | radial, 7-pin, Connector connected to encoder housing | — |
|-----------|-------------------------------------------------------|---|

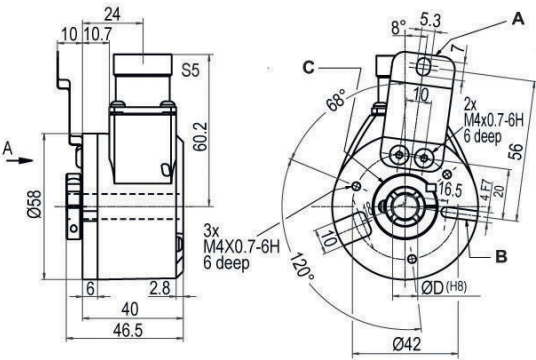
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Encoder EI30 P 058 HO

Assignments

| R7                                                                                |                    |
|-----------------------------------------------------------------------------------|--------------------|
| 7-pin                                                                             |                    |
|  |                    |
| Circuit                                                                           | C3, C4, C5, C6, C7 |
| GND                                                                               | 1                  |
| (+) Vcc                                                                           | 2                  |
| A                                                                                 | 3                  |
| B                                                                                 | 4                  |
| N                                                                                 | 5                  |
| —                                                                                 | —                  |
| A inv.                                                                            | —                  |
| B inv.                                                                            | —                  |
| N inv.                                                                            | —                  |
| n. c.                                                                             | 6, 7               |
| Shield                                                                            | —                  |

Connector (M23) R12M, radial, 12-pin



All dimensions in mm

- A Spring plate as torque support
- B Groove for cylinder pin as torque support DIN7-D4mm
- B Clamping ring

Description

|      |                                                        |              |
|------|--------------------------------------------------------|--------------|
| R12M | radial, 12-pin, Connector connected to encoder housing | N inv. poss. |
|------|--------------------------------------------------------|--------------|

Assignments

|         | R12M                                                                                | R12M                                                                                | R12M                                                                                |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|         | 12-pin                                                                              | 12-pin                                                                              | 12-pin                                                                              |
|         |  |  |  |
| Circuit | C3, C4, C5, C6, C7                                                                  | C1, C2, D3, D4, D5, D6, D7                                                          | D8                                                                                  |
| GND     | 10                                                                                  | 10                                                                                  | 10                                                                                  |
| (+) Vcc | 12                                                                                  | 12                                                                                  | 12                                                                                  |

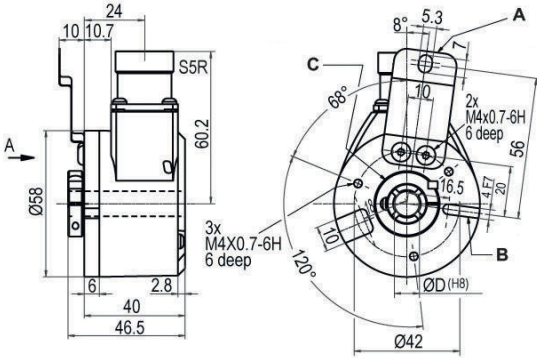
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Encoder EI30 P 058 HO

Assignments

|        |                      |             |                   |
|--------|----------------------|-------------|-------------------|
| A      | 5                    | 5           | 5                 |
| B      | 8                    | 8           | 8                 |
| N      | 3                    | 3           | —                 |
| —      | —                    | —           | —                 |
| A inv. | —                    | 6           | 6                 |
| B inv. | —                    | 1           | 1                 |
| N inv. | —                    | 4           | —                 |
| n. c.  | 1, 2, 4, 6, 7, 9, 11 | 2, 7, 9, 11 | 2, 3, 4, 7, 9, 11 |
| Shield | —                    | —           | —                 |

Connector (M23) RC, radial, 12-pin (clockwise)



All dimensions in mm

- A Spring plate as torque support
- B Groove for cylinder pin as torque support DIN7-D4mm
- B Clamping ring

Description

N inv. poss.

RC12 radial, 12-pin, Connector connected to encoder housing



Assignments

|         | RC12               | RC12                       | RC12   |
|---------|--------------------|----------------------------|--------|
|         | 12-pin             | 12-pin                     | 12-pin |
|         |                    |                            |        |
| Circuit | C3, C4, C5, C6, C7 | C1, C2, D3, D4, D5, D6, D7 | D8     |
| GND     | 10                 | 10                         | 10     |
| (+) Vcc | 12                 | 12                         | 12     |
| A       | 5                  | 5                          | 5      |
| B       | 8                  | 8                          | 8      |
| N       | 3                  | 3                          | —      |
| —       | —                  | —                          | —      |
| A inv.  | —                  | 6                          | 6      |
| B inv.  | —                  | 1                          | 1      |
| N inv.  | —                  | 4                          | —      |



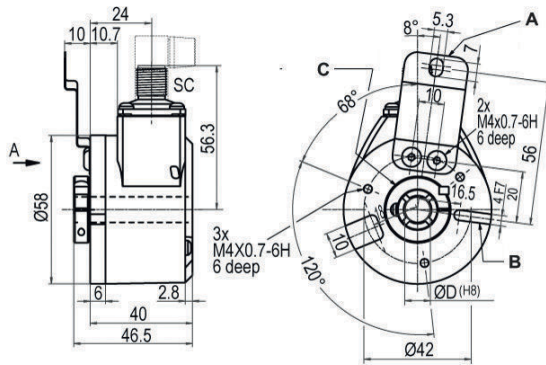
## 기술 데이터

## Encoder EI30 P 058 HO

## Assignments

|               |                         |             |                      |
|---------------|-------------------------|-------------|----------------------|
| <b>n. c.</b>  | 1, 2, 4, 6, 7,<br>9, 11 | 2, 7, 9, 11 | 2, 3, 4, 7,<br>9, 11 |
| <b>Shield</b> | –                       | –           | –                    |

### Sensor-connector (M12x1) RS radial, 4-, 5-, 8-, 12-pin



All dimensions in mm

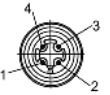
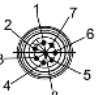
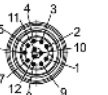
- A Spring plate as torque support  
B Groove for cylinder pin as torque support DIN7-D4mm  
B Clamping ring

### Description

**N inv. poss.**

|             |                                                        |   |
|-------------|--------------------------------------------------------|---|
| <b>RS4</b>  | radial, 4-pin, Connector connected to encoder housing  | — |
| <b>RS5</b>  | radial, 5-pin, Connector connected to encoder housing  | — |
| <b>RS8</b>  | radial, 8-pin, Connector connected to encoder housing  | ● |
| <b>RS12</b> | radial, 12-pin, Connector connected to encoder housing | ● |

## Assignments

|                | RS5                                                                                 | RS5                                                                                 | RS8                                                                                 | RS8                                                                                 | RS8                                                                                  |
|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                | 4-pin                                                                               | 5-pin                                                                               | 8-pin                                                                               | 8-pin                                                                               | 8-pin                                                                                |
|                |  |  |  |  |  |
| <b>Circuit</b> | C3, C4, C5, C6, C7                                                                  | C3, C4, C5, C6, C7                                                                  | C1, C2, D3, D4, D5, D6, D7                                                          | D8                                                                                  | C1, C2, D3, D4, D5, D6, D7                                                           |
| <b>GND</b>     | 3                                                                                   | 3                                                                                   | 1                                                                                   | 1                                                                                   | 3                                                                                    |
| <b>(+) Vcc</b> | 1                                                                                   | 1                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                    |
| <b>A</b>       | 4                                                                                   | 4                                                                                   | 3                                                                                   | 3                                                                                   | 4                                                                                    |
| <b>B</b>       | —                                                                                   | 2                                                                                   | 4                                                                                   | 5                                                                                   | 6                                                                                    |
| <b>N</b>       | —                                                                                   | 5                                                                                   | 5                                                                                   | —                                                                                   | 8                                                                                    |
| <b>—</b>       | —                                                                                   | —                                                                                   | —                                                                                   | —                                                                                   | —                                                                                    |
| <b>A inv.</b>  | —                                                                                   | —                                                                                   | 6                                                                                   | 4                                                                                   | 9                                                                                    |
| <b>B inv.</b>  | —                                                                                   | —                                                                                   | 7                                                                                   | 6                                                                                   | 7                                                                                    |
| <b>N inv.</b>  | —                                                                                   | —                                                                                   | 8                                                                                   | —                                                                                   | 10                                                                                   |
| <b>n. c.</b>   | —                                                                                   | —                                                                                   | —                                                                                   | 7, 8                                                                                | 2, 5, 11, 12                                                                         |
| <b>Shield</b>  | —                                                                                   | —                                                                                   | —                                                                                   | —                                                                                   | —                                                                                    |

기술 데이터

Encoder EI30 P 058 HO

Options

| Low temperature                                                                                                                                                                                                                                                                                                                                                              | Order key       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| The encoder EI30 P 058 HO with the output circuit types C1, C2, C3, C4, C5, C6, D3, D4, D5, D6 is also available with the extended temperature range -40 °C up to +85 °C [-40 °F up to +185 °F] (measured at the flange).                                                                                                                                                    | LT              |
| Pressure equalising membrane                                                                                                                                                                                                                                                                                                                                                 | Order key       |
| The EI30 P 058 HO shaft encoder is also optionally available with a pressure equalising membrane. This prevents water from penetrating into the encoder housing in the case of high air humidity.<br><br>The IP67 protection level, temperature range and salt spray resistance are maintained.<br>Resistant to chemicals and solvents in accordance with DIN EN ISO 2812-1. | PE              |
| Cable length                                                                                                                                                                                                                                                                                                                                                                 | Order key       |
| The encoder EI30 P 058 HO can be supplied with more than 2 m cable.<br>The maximum cable length depends on the supply voltage and the frequency.<br><br>Please extend the standard order code with a three figure number, specifying the cable length in decimetres.<br>Example: 5 m cable = 050                                                                             | XXX = Decimeter |

기술 데이터

Encoder EI30 P 058 HO

| Example Order No.          | Type                                                                                                                                                                                                                                                                                                                                               |                  |                                      |   |           |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------|---|-----------|
| EI30 P 058 HO              | EI30 P 058 HO                                                                                                                                                                                                                                                                                                                                      | EI30 P 058 HO    |                                      |   |           |
| Bore size                  |                                                                                                                                                                                                                                                                                                                                                    |                  |                                      |   |           |
| 10                         | 06; 2Z; 07; 08; 4Z; 10; 12; 3Z; 14; 15                                                                                                                                                                                                                                                                                                             | 10               |                                      |   |           |
| Pulses per revolution PPR: |                                                                                                                                                                                                                                                                                                                                                    |                  |                                      |   |           |
| 1024                       | 4, 6, 25, 36, 50, 60, 64, 70, 88, 100, 120, 125, 150, 180, 200, 240, 250, 256, 300, 360, 400, 500, 512, 600, 720, 750, 768, 800, 900, 1000, 1024, 1200, 1250, 1270, 1500, 1800, 2000, 2048, 2500, 3000, 3600, 4000, 4096, 5000, 8000, 8192, 10000, 10240, 12500, 16384, 20000, 20480, 25000<br>1 Vpp Sin/Cos only 1024, 2048 Other pprs on request | 1-16384          |                                      |   |           |
| Channels:                  |                                                                                                                                                                                                                                                                                                                                                    |                  |                                      |   |           |
| N                          | B, N (SIN: B)                                                                                                                                                                                                                                                                                                                                      | N                |                                      |   |           |
| Output circuit             |                                                                                                                                                                                                                                                                                                                                                    |                  |                                      |   |           |
| C6                         | Resolution PPR                                                                                                                                                                                                                                                                                                                                     | Power supply VDC | Output circuit                       | - | Order key |
|                            | up to 2500                                                                                                                                                                                                                                                                                                                                         | 5 - 30           | HTL (TTL at 5 VDC)                   | - | C7        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 5 - 30           | HTL, inv. (TTL/RS422 comp. at 5 VDC) | - | D7        |
|                            | up to 5000                                                                                                                                                                                                                                                                                                                                         | 4.75 - 5.5       | TTL                                  | - | C5        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 4.75 - 5.5       | TTL, RS422 comp., inverted           | - | D5        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | HTL                                  | - | C6        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | HTL inverted                         | - | D6        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | TTL, RS422 comp., inverted           | - | C1        |
|                            | (higher frequency) 1200 up to 25000                                                                                                                                                                                                                                                                                                                | 4.75 - 5.5       | TTL                                  | - | C3        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 4.75 - 5.5       | TTL, RS422 comp., inverted           | - | D3        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | HTL                                  | - | C4        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | HTL inverted                         | - | D4        |
|                            |                                                                                                                                                                                                                                                                                                                                                    | 10 - 30          | TTL, RS422 comp., inverted           | - | C2        |
|                            | 1024, 2048                                                                                                                                                                                                                                                                                                                                         | 4.75 - 5.5       | 1 Vpp sin/cos                        | - | D8        |

기술 데이터

Encoder EI30 P 058 HO

Electrical connections

| Description                  |                                                     | N inv. poss. | Order key |
|------------------------------|-----------------------------------------------------|--------------|-----------|
| Cable: length (2 m standard) |                                                     |              |           |
| R-N                          | radial, shield not connected                        | •            | R-N       |
|                              | radial, shield connected to encoder housing         | •            | R-C       |
|                              | Connector: (shield connected to encoder housing)    |              |           |
|                              | connector, M16x0.75, 5-pin, radial                  | –            | R5        |
|                              | connector, M16x0.75, 6-pin, radial                  | –            | R6        |
|                              | connector, M16x0.75, 8-pin, radial                  | •            | R8        |
|                              | connector, M16x0.75, 12-pin, radial                 | •            | R12       |
|                              | connector, M16x0.75, 7-pin, radial                  | –            | R7        |
|                              | connector, M23, 12-pin, radial                      | •            | R12M      |
|                              | connector, clockwise pin count, M23, 12-pin, radial | •            | RC12      |
|                              | sensor-connector, M12x1, 4-pin, radial              |              | RS4       |
|                              | sensor-connector, M12x1, 5-pin, radial              | –            | RS5       |
|                              | sensor-connector, M12x1, 8-pin, radial              | •            | RS8       |
|                              | sensor-connector, M12x1, 12-pin, radial             |              | RS12      |

Options

| Description                  | Order key       |
|------------------------------|-----------------|
| Low-friction bearings        | LB              |
| Low temperature              | LT              |
| Pressure equalising membrane | PE              |
| Cable length                 | XXX = Decimeter |
| Without option               | Empty           |

|                    |               |    |      |   |     |               |              |
|--------------------|---------------|----|------|---|-----|---------------|--------------|
| Example Order No.: | EI30 P 058 HO | 10 | 1024 | N | R-N | EI30 P 058 HO | Your encoder |
|--------------------|---------------|----|------|---|-----|---------------|--------------|

제품 키워드

제품 명칭: EABB CCCDDEE FFFFFFF GHJJKK LLMNNOPPP RR

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A      | 회전 센서 유형<br>I: 증분형<br>S: 절대형, 싱글턴<br>M: 절대형, 멀티턴                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| BB     | 시리즈<br>10: Entry<br>30: 기본<br>50: 확장형<br>70: Advanced                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CCC    | 플랜지 직경<br>024: 24mm<br>036: 36mm<br>058: 58mm<br>063: 63mm<br>067: 67mm<br>070: 70mm<br>080: 80mm<br>100: 100 mm<br>115: 115 mm                                                                                                                                                                                                                                                                                                                                                      |
| DD     | 플랜지 유형<br>BB: 막힌 구멍 보어가 있는 중공축<br>CC: 클램핑 플랜지(컴팩트형)<br>CF: 클램핑 플랜지(식품 및 음료용)<br>CH: 클램핑 플랜지(중하중형)<br>CL: 클램핑 플랜지<br>HI: 중공축(절연)<br>HO: 중공축<br>HT: 중공축(특수 토크 지지대)<br>RC: 원형 플랜지(36/40 클램핑 플랜지, 58은 6 mm 축 적용)<br>RE: 원형 플랜지(확장 홀)<br>RN: 원형 플랜지<br>SC: 스테이터 커플링<br>SF: 나사식 플랜지(53 클램핑 플랜지, 58 식품 및 음료용)<br>SI: 서보 플랜지(증가된 축 하중 및 IP 보호)<br>SQ: 스퀘어 플랜지<br>SR: 나사식 플랜지(36/40 클램핑 플랜지, 58 내식형)<br>SY: 싱크로(증분형), 서보(36), 싱크로(58)(절대형)<br>TM: 타코(115, 1mm 축, 58 모터 피드백)<br>TS: 타코(10mm 축) |
| EE     | 축/보어 직경<br>06: 6mm<br>07: 7mm<br>08: 8mm<br>08: 8mm<br>10: 10mm<br>11: 11mm<br>12: 12mm<br>14: 14mm<br>15: 15 mm<br>06-72: 중공축/막힌 구멍 보어(6 ~ 72mm)                                                                                                                                                                                                                                                                                                                                    |
| FFFFFF | 신호/분해능<br>Axxxxx: A<br>Bxxxxx: AB<br>Nxxxxx: ABN<br>P16384: 프로그래밍 가능<br>xx: 싱글턴, 1 ~ 16비트<br>xx: 멀티턴, 0 ~ 43비트(싱글턴의 경우 00)                                                                                                                                                                                                                                                                                                                                                           |
| G      | 갈바닉 절연(절대형에 한함)<br>0: 제외<br>1: 있음                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| HH     | 전원 공급(절대형에 한함)<br>0: 10 ~ 32V DC/갈바닉 절연<br>1: 4.75 ~ 5.5V DC<br>2: 18 ~ 30V DC                                                                                                                                                                                                                                                                                                                                                                                                       |
| J      | 작동 원리<br>M: 자기식<br>O: 광학 방식<br>P: 광학 보간                                                                                                                                                                                                                                                                                                                                                                                                                                              |

제품 키워드

|     |                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------|
| KK  | 인터페이스<br>01: RS485<br>07: SSI 2진<br>08: SSI Gray<br>35: CANopen<br>38: EtherCAT<br>48: PROFINET<br>58: EtherNet/IP |
| LL  | 전기 연결<br>M08: 원형 커넥터 M8<br>M12: 원형 커넥터 M12<br>M16: 원형 커넥터 M16<br>M23: 원형 커넥터 M23<br>M12BC: 버스 커넥터                  |
| M   | 케이블 출구<br>A: 액시얼<br>R: 레이디얼<br>T: 접선형                                                                              |
| NN  | 핀 개수<br>xx: 핀 개수                                                                                                   |
| O   | 차폐 연결(2m 케이블)(옵션)<br>C: 연결됨<br>N: 연결되지 않음                                                                          |
| PPP | 케이블 길이<br>xxx: 케이블 길이(단위: dm)                                                                                      |

참고

|                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|  | 제공되는 모든 장치 유형 목록은 로이체의 웹 사이트 <a href="http://www.leuze.com">www.leuze.com</a> 을 참조하십시오. |
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