

Hoja técnica

Información sobre la serie de encoders

Código: 90000390

EI30-P 067 SQ

Contenido

- Datos técnicos
- Código de producto



La figura puede variar

Encoder_Serie	EI 067 SQ
Encoder_Principio básico	incremental
Encoder_Principio de funcionamiento	interpolado ópticamente
Encoder_Diámetro de la brida	Ø 67 mm
Encoder_Tipo de brida	Brida cuadrada
Encoder_Eje macizo/Eje hueco	Eje hueco
Encoder_Diámetro del eje	Ø 10 mm
	Ø 7 mm
	Ø 8 mm
Encoder_Tensión de alimentación	10 ... 30 V CC
	4,75 ... 5,5 V CC
	5 ... 30 V CC
Encoder_Conmutación de salida	1 Vss Sin/Cos
	HTL
	HTL, inv.
	TTL
Encoder_Número de impulsos	TTL, compatible con RS422, inv.
	10000 imp./rev.
	10240 imp./rev.
	12000 imp./rev.
	12500 imp./rev.
	1440 imp./rev.
	15000 imp./rev.
	16384 imp./rev.
	20000 imp./rev.
	20480 imp./rev.
	25000 imp./rev.
	2880 imp./rev.
	3000 imp./rev.
	3600 imp./rev.
	4000 imp./rev.
	5760 imp./rev.
	6000 imp./rev.
	7200 imp./rev.
	7500 imp./rev.
	8000 imp./rev.
	9182 imp./rev.

Datos técnicos

Encoder EI30 P 067 SQ

Resolution

Pulses per revolution PPR	up to 25000 PPR
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Mechanical Data

Flange	square flange
Flange material	aluminum
Housing material	die cast aluminum, powder coated
Flange diameter	Ø 67.3 mm [Ø 2.65"]

Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 1 Ncm [1.416 in-ozf] at ambient temperature

Shaft

Shaft length	L: 10 mm [0.394"]
Max. Permissible shaft loading radial	220 N [22.433 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]

Shaft

Advice	Attention: No option AAO = full IP67 version
Shaft length	L: 19 mm [0.748"]
Max. Permissible shaft loading radial	80 N [8.157 kp]
Max. Permissible shaft loading axial	50 N [5.098 kp]

Shaft

Shaft length	L: 19 mm [0.748"]
Max. Permissible shaft loading radial	220 N [22.433 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]

Shaft

Shaft length	L: 22.3 mm [0.878"]
Max. Permissible shaft loading radial	220 N [22.433 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]

Shaft

Shaft length	L: 20 mm [0.787"]
Max. Permissible shaft loading radial	220 N [22.433 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]

Advice

Ø 12 mm [0.472"] on request

Bearings

Bearings type	2 precision ball bearings
Nominale service life	1 x 10 ⁹ revs. at 100 % rated shaft load 1 x 10 ¹⁰ revs. at 40 % rated shaft load 11 x 10 ¹¹ revs. at 20 % rated shaft load
Max. operating speed	8000 rpm

Machinery Directive: basic data safety integrity level

MTTF _d	200 a
Mission time (TM)	25 a
Nominale service life (L10h)	1 x 10 ¹¹ revs. at 20 % rated shaft load and 8000 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 TTL, RS422 compatible, inv. HTL HTL, inv. 1 Vpp sin/cos
Pulse frequency	TTL ≤ 5000 ppr: max. 200 kHz HTL ≤ 5000 ppr: max. 200 kHz TTL more than 1200 ppr: max. 2 MHz HTL more than 1200 ppr: max. 600 kHz 1 Vpp sin/cos: max. 100 kHz
Channels	B N and inverted signals 1 Vpp Sin/Cos
Load	max. 40 mA / channel @ 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 % Output circuits C2, C3, C4, D3, D4: 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 DIN EN 61000-6-3
Vibration: (DIN EN 60068-2-6)	50 m/s ² (10 Hz up to 2000 Hz)
Shock: (DIN EN 60068-2-27)	1000 m/s ² (6 ms)
Electrical Safety:	according DIN VDE 0160

Duty information

Customs tariff number:	90318020
Country of origin:	Germany

Datos técnicos

Encoder EI30 P 067 SQ

General Data

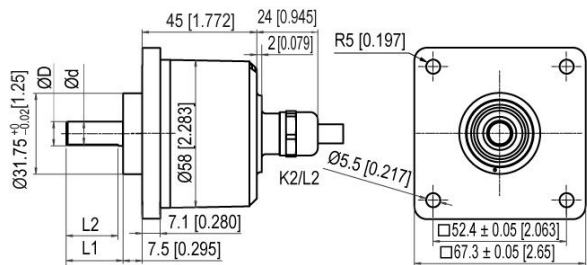
Weight	approx. 300 g [10.582 oz]
Connections	cable or connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65
Operating temperature	Connector: -40 °C up to +85 °C, Cable: -20 °C up to +80 °C (Option LT: -40 °C up to +85 °C). Connector: -40 °F up to +185 °F, Cable: -4 °F up to +176 °F, Option LT: -40 °F up to +185 F° 1 Vpp: -10 °C up to +70 °C [+14 °F up to +158 °F]

General Data

Storage temperature	Connector: -40 °C up to +85 °C, Cable: -30 °C up to +80 °C (Option LT: -40 °C up to +85 °C) Connector: -40 °F up to +185 °F, cable: -22 °F up to +176 °F, (Option LT: -40 °F up to +185 °F)
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Cable connection A-N, A-C, axial, with 2 m cable

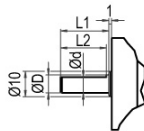
Ø 3/8", Ø 10 mm:



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

N inv. poss.

A-N	axial, shield not connected	•
A-C	axial, shield connected to encoder housing	•

Assignments

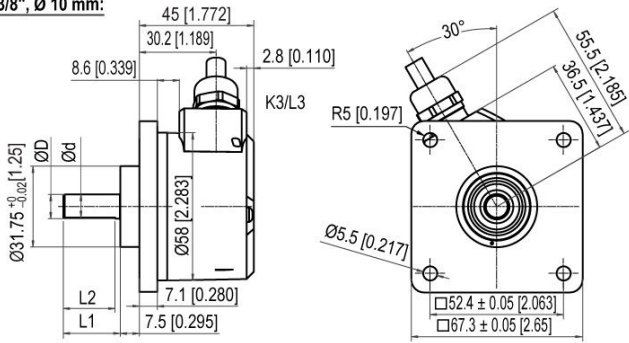
	A-N, A-C	A-N, A-C	A-C
Circuit	C3, C4, C5, C6, C7	D3, D4, D5, D6, C1, C2, D7	D8
GND	WH	WH	WH
(+) Vcc	BN	BN	BN
A	GN	GN	GN
B	YE	YE	GY
N	GY	GY	–
–	–	–	–
A inv.	–	RD	YE
B inv.	–	BK, (BU at LT)	PK
N inv.	–	VT	–
Shield	flex	flex	flex

Datos técnicos

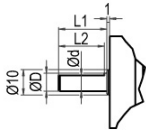
Encoder EI30 P 067 SQ

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

Ø 3/8", Ø 10 mm:



Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Description

N inv. poss.

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

Assignments

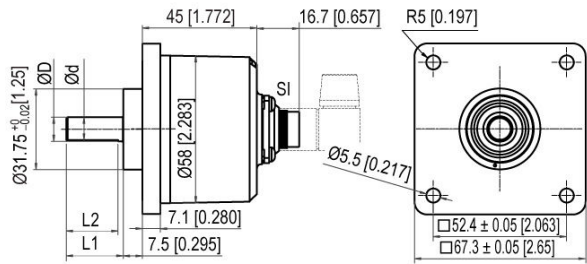
	R-N, R-C	R-N, R-C	R-C
Circuit	C3, C4, C5, C6, C7	D3, D4, D5, D6, C1, C2, D7	D8
GND	WH	WH	WH
(+) Vcc	BN	BN	BN
A	GN	GN	GN
B	YE	YE	GY
N	GY	GY	-
-	-	-	-
A inv.	-	RD	YE
B inv.	-	BK, (BU at LT)	PK
N inv.	-	VT	-
Shield	flex	flex	flex

Datos técnicos

Encoder EI30 P 067 SQ

Connector (M16x0.75) A, axial, 5-, 6-, 8-, 12-pin

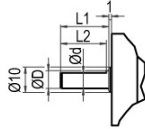
Ø 3/8", Ø 10 mm:



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

N inv. poss.

A5	axial, 5-pin, Connector connected to encoder housing	—
A6	axial, 6-pin, Connector connected to encoder housing	—
A8	axial, 8-pin, Connector connected to encoder housing	•
A12	axial, 12-pin, Connector connected to encoder housing	•

Assignments

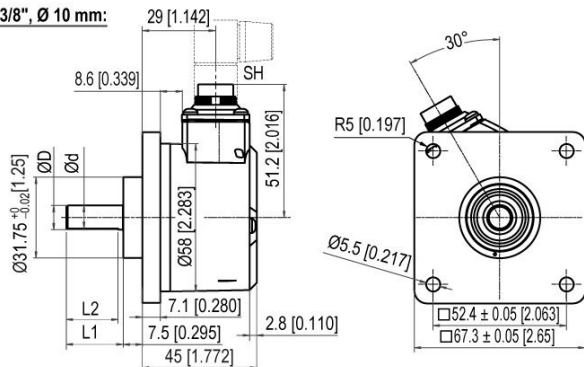
	A5	A6	A8	A8	A12	A12
	5-pin	6-pin	8-pin	8-pin	12-pin	12-pin
Circuit	C3, C4, C5, C6, C7	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8	C1, C2, D3, D4, D5, D6, D7	D8
GND	1	6	1	1	K, L	K, L
(+) Vcc	2	1	2	2	M, B	M, B
A	3	2	3	3	E	E
B	4	4	4	4	H	H
N	5	3	5	—	C	—
—	—	—	—	—	—	—
A inv.	—	—	6	6	F	F
B inv.	—	—	7	7	A	A
N inv.	—	—	8	—	D	—
n. c.	—	5	—	5, 8	G, J	D, G, J
Shield	—	—	—	—	—	—

Datos técnicos

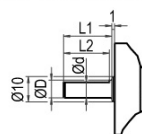
Encoder EI30 P 067 SQ

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

Ø 3/8", Ø 10 mm:



Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Description

N inv. poss.

R5	radial, 5-pin, Connector connected to encoder housing	—
R6	radial, 6-pin, Connector connected to encoder housing	—
R8	radial, 8-pin, Connector connected to encoder housing	•
R12	radial, 12-pin, Connector connected to encoder housing	•

Assignments

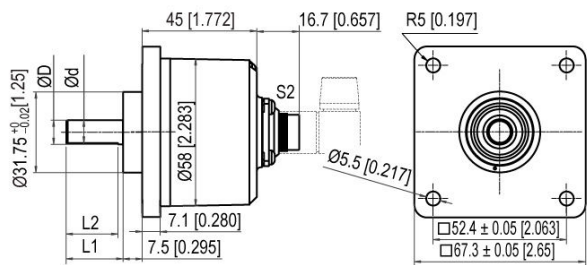
	R5 5-pin	R6 6-pin	R8 8-pin	R8 8-pin	R12 12-pin	R12 12-pin
Circuit	C3, C4, C5, C6, C7	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8	C1, C2, D3, D4, D5, D6, D7	D8
GND	1	6	1	1	K, L	K, L
(+) Vcc	2	1	2	2	M, B	M, B
A	3	2	3	3	E	E
B	4	4	4	4	H	H
N	5	3	5	—	C	—
—	—	—	—	—	—	—
A inv.	—	—	6	6	F	F
B inv.	—	—	7	7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

Datos técnicos

Encoder EI30 P 067 SQ

Connector (M16x0.75) A7, axial, 7-pin

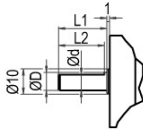
Ø 3/8", Ø 10 mm:



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

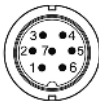
N inv. poss.

A7 axial, 7-pin, Connector connected to encoder housing

Assignments

A7

7-pin

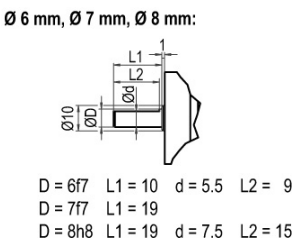
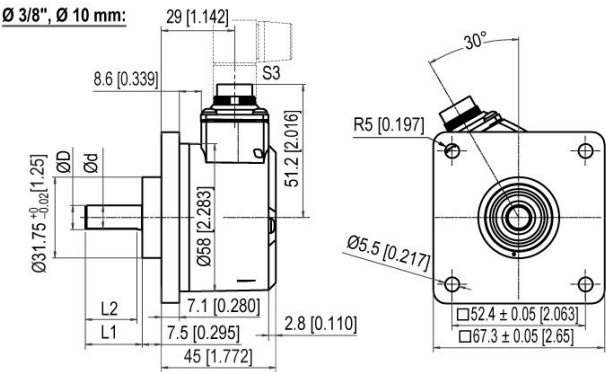


Circuit	C3, C4, C5, C6, C7
GND	1
(+) Vcc	2
A	3
B	4
N	5
—	—
A inv.	—
B inv.	—
N inv.	—
n. c.	6, 7
Shield	—

Datos técnicos

Encoder EI30 P 067 SQ

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



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Description

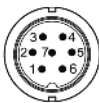
N inv. poss.

R7 radial, 7-pin, Connector connected to encoder housing

Assignments

R7

7-pin



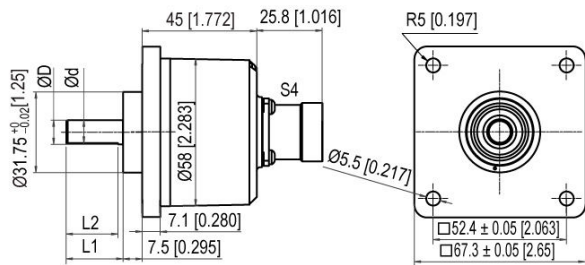
Circuit	C3, C4, C5, C6, C7
GND	1
(+) Vcc	2
A	3
B	4
N	5
—	—
A inv.	—
B inv.	—
N inv.	—
n. c.	6, 7
Shield	—

Datos técnicos

Encoder EI30 P 067 SQ

Connector (M23) A12M, axial, 12-pin

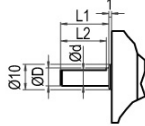
Ø 3/8", Ø 10 mm:



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

N inv. poss.

A12M axial, 12-pin, Connector connected to encoder housing

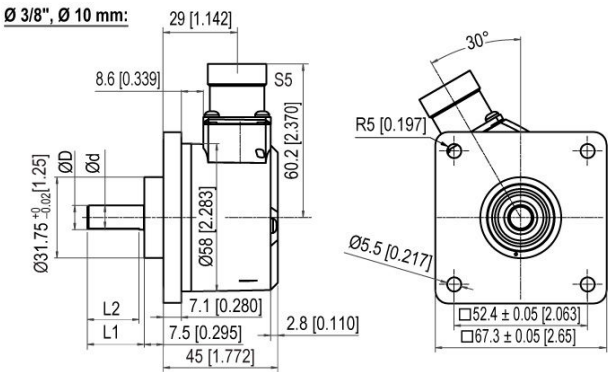
Assignments

	A12M	A12M	A12M
	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	—
n. c.	1, 2, 4, 6, 7, 9, 11	2, 7, 9, 11	2, 3, 4, 7, 9, 11
Shield	—	—	—

Datos técnicos

Encoder EI30 P 067 SQ

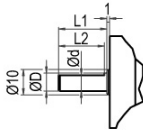
Connector (M23) R12M, radial, 12-pin



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

N inv. poss.

R12M radial, 12-pin, Connector connected to encoder housing

Assignments

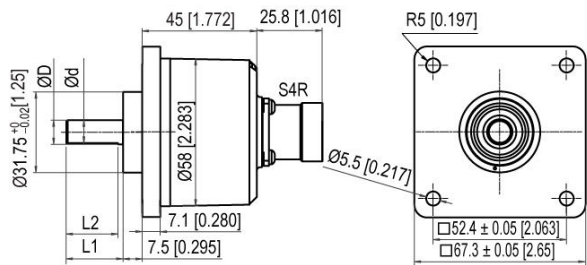
	R12M	R12M	R12M
	12-pin	12-pin	12-pin
Circuit	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8
GND	10	10	10
(+) Vcc	12	12	12
A	5	5	5
B	8	8	8
N	3	3	—
—	—	—	—
A inv.	—	6	6
B inv.	—	1	1
N inv.	—	4	—
n. c.	1, 2, 4, 6, 7, 9, 11	2, 7, 9, 11	2, 3, 4, 7, 9, 11
Shield	—	—	—

Datos técnicos

Encoder EI30 P 067 SQ

Connector (M23) AC, axial, 12-pin (clockwise)

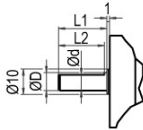
Ø 3/8", Ø 10 mm:



D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

Description

N inv. poss.

AC12 axial, 12-pin, Connector connected to encoder housing

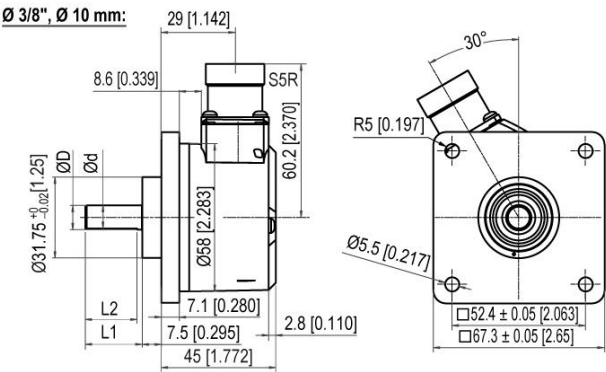
Assignments

	AC12	AC12	AC12
	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	—
n. c.	1, 2, 4, 6, 7, 9, 11	2, 7, 9, 11	2, 3, 4, 7, 9, 11
Shield	—	—	—

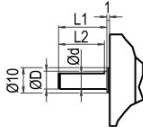
Datos técnicos

Encoder EI30 P 067 SQ

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



Ø 6 mm, Ø 7 mm, Ø 8 mm:



D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

D = 9.525h7 [0.375] L1 = 22.3 [0.878] d = 9 [0.345] L2 = 20.3 [0.799]
D = 10f7 L1 = 20 d = 9 L2 = 15

All dimensions in mm

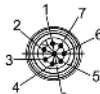
Description

N inv. poss.

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

Assignments

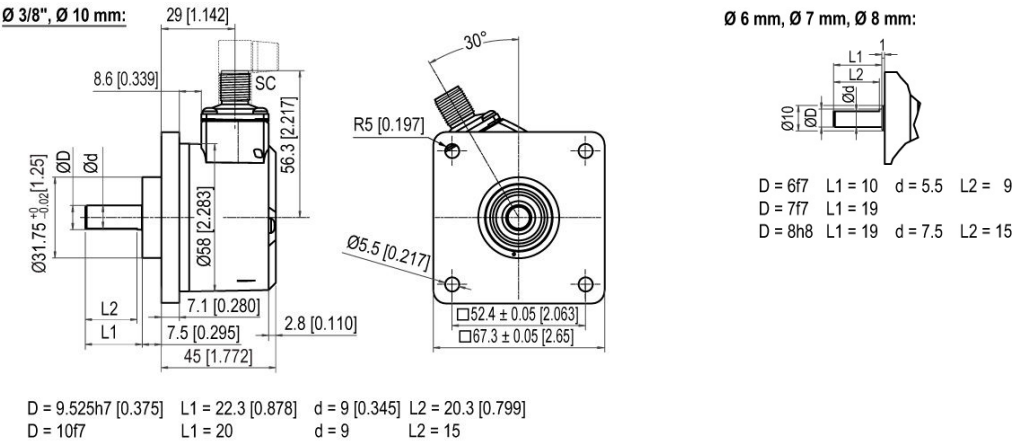
	RC12 12-pin	RC12 12-pin	RC12 12-pin
Circuit	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8
GND	10	10	10
(+) Vcc	12	12	12
A	5	5	5
B	8	8	8
N	3	3	—
—	—	—	—
A inv.	—	6	6
B inv.	—	1	1
N inv.	—	4	—
n. c.	1, 2, 4, 6, 7, 9, 11	2, 7, 9, 11	2, 3, 4, 7, 9, 11
Shield	—	—	—

	AS4	AS5	AS8	AS8	AS12
	4-pin	5-pin	8-pin	8-pin	12-pin
					
Circuit	C3, C4, C5, C6, C7	C3, C4, C5, C6, C7	D3, D4, D5, D6, D7, C1, C2	D8	D3, D4, D5, D6, D7, C1, C2
GND	3	3	1	1	3
(+) Vcc	1	1	2	2	1
A	2	4	3	3	4
B	4	2	4	5	6
N	–	5	5	–	8
–	–	–	–	–	–
A inv.	–	–	6	4	9
B inv.	–	–	7	6	7
N inv.	–	–	8	–	10
n. c.	–	–	–	7, 8	2, 5, 11, 12
Shield	–	–	–	–	–

Datos técnicos

Encoder EI30 P 067 SQ

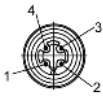
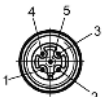
Sensor-connector (M12x1) RS, radial, 4-, 5-, 8-, 12-pin



All dimensions in mm

Description		N inv. poss.
RS4	radial, 4-pin, Connector connected to encoder housing	–
RS5	radial, 5-pin, Connector connected to encoder housing	–
RS8	radial, 8-pin, Connector connected to encoder housing	•
RS12	radial, 12-pin, Connector connected to encoder housing	•

Assignments

	RS4 4-pin	RS5 5-pin	RS8 8-pin	RS8 8-pin	RS12 12-pin
					
Circuit	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
GND	3	3	1	1	3
(+) Vcc	1	1	2	2	1
A	2	4	3	3	4
B	4	2	4	5	6
N	–	5	5	–	8
–	–	–	–	–	–
A inv.	–	–	6	4	9
B inv.	–	–	7	6	7
N inv.	–	–	8	–	10
n. c.	–	–	–	7, 8	2, 5, 11, 12
Shield	–	–	–	–	–

Datos técnicos

Encoder EI30 P 067 SQ

Options

Low-friction bearings

Order key

The encoder EI30 P 067 SQ is also available as a particularly smooth- running low-friction encoder. The starting torque is thereby changed to ≤ 0.5 Ncm [0.708 in-ozf] and the protection class at the shaft input to IP50.

LB

IP67 Shafts sealed to IP67

The encoder EI30 P 067 SQ can be supplied in a full IP67 version. Shaft $\varnothing$ 10 mm [0.394"] without flat. IP67 not at 1 Vpp Sin/Cos. IP67 not at shaft $\varnothing$ 7 mm [0.2761"].

IP

Max. RPM: 3500 rpm
 Permitted Shaft-Loading, axial: 100 N [10.197 kp]
 Permitted Shaft-Loading, radial: 110 N [11.216 kp]
 Max. PPR: 25000 ppr
 Starting-torque: approx. 4 Ncm [5.664 in-ozf] at ambient temperature

Low temperature

Order key

The encoder EI30 P 067 SQ 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 067 SQ 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.

PE

The IP67 protection level, temperature range and salt spray resistance are maintained. Resistant to chemicals and solvents in accordance with DIN EN ISO 2812-1.

Cable length

Order key

The encoder EI30 P 067 SQ can be supplied with more than 2 m cable.
 The maximum cable length depends on the supply voltage and the frequency.

XXX = Decimeter

Please extend the standard order code with a three figure number, specifying the cable length in decimetres.
 Example: 5 m cable = 050

Datos técnicos

Encoder EI30 P 067 SQ

Example Order No.	Type																																																																						
EI30 P 067 SQ	EI30 P 067 SQ																																																																						
	EI30 P 067 SQ																																																																						
Shaft																																																																							
4Z	06; 07; 08; 4Z; 10																																																																						
Pulses per revolution PPR:																																																																							
5000	2, 5, 10, 15, 20, 25, 30, 36, 40, 48, 50, 60, 64, 72, 90, 100, 120, 125, 128, 150, 160, 180, 200, 216, 240, 250, 254, 256, 300, 314, 320, 360, 400, 500, 512, 571, 600, 720, 750, 768, 800, 900, 1000, 1024, 1200, 1250, 1270, 1440, 1500, 1800, 2000, 2048, 2400, 2500, 2880, 3000, 3600, 4000, 4096, 4685, 5000, 5760, 6000, 7200, 7500, 8000, 8192, 10000, 10240, 12000, 12500, 15000, 16384, 20000, 20480, 25000 1 Vpp Sin/Cos only 1024, 2048 Other PPRs on request																																																																						
Channels:																																																																							
N	B, N (SIN: B)																																																																						
Output circuit																																																																							
C6	<table><tr><th>Resolution PPR</th><th>Power supply VDC</th><th>Output circuit</th><th>—</th><th>Order key</th></tr><tr><td rowspan="2">up to 2500</td><td>5 - 30</td><td>HTL (TTL at 5 VDC)</td><td>—</td><td>C7</td></tr><tr><td>5 - 30</td><td>HTL, inv. (TTL/RS422 comp. at 5 VDC)</td><td>—</td><td>D7</td></tr><tr><td rowspan="6">up to 5000</td><td>4.75 - 5.5</td><td>TTL</td><td>—</td><td>C5</td></tr><tr><td>4.75 - 5.5</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>D5</td></tr><tr><td>10 - 30</td><td>HTL</td><td>—</td><td>C6</td></tr><tr><td>10 - 30</td><td>HTL inverted</td><td>—</td><td>D6</td></tr><tr><td>10 - 30</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>C1</td></tr><tr><td>10 - 30</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>D3</td></tr><tr><td rowspan="4">(higher frequency) 1200 up to 25000</td><td>4.75 - 5.5</td><td>TTL</td><td>—</td><td>C3</td></tr><tr><td>4.75 - 5.5</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>D3</td></tr><tr><td>10 - 30</td><td>HTL</td><td>—</td><td>C4</td></tr><tr><td>10 - 30</td><td>HTL inverted</td><td>—</td><td>D4</td></tr><tr><td rowspan="2">1024, 2048</td><td>10 - 30</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>C2</td></tr><tr><td>10 - 30</td><td>TTL, RS422 comp., inverted</td><td>—</td><td>D4</td></tr><tr><td>1024, 2048</td><td>4.75 - 5.5</td><td>1 Vpp sin/cos</td><td>—</td><td>D8</td></tr></table>	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	10 - 30	TTL, RS422 comp., inverted	—	D3	(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	1024, 2048	10 - 30	TTL, RS422 comp., inverted	—	C2	10 - 30	TTL, RS422 comp., inverted	—	D4	1024, 2048	4.75 - 5.5	1 Vpp sin/cos	—	D8
	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																																																																		
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		10 - 30	TTL, RS422 comp., inverted	—	C1																																																																		
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		10 - 30	HTL inverted	—	D4																																																																		
	1024, 2048	10 - 30	TTL, RS422 comp., inverted	—	C2																																																																		
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1024, 2048	4.75 - 5.5	1 Vpp sin/cos	—	D8																																																																			

Datos técnicos

Encoder EI30 P 067 SQ

Electrical connections

	Description	N inv. poss.	Order key
A-N	Cable: length (2 m standard)		
	axial, shield not connected	•	A-N
	axial, shield connected to encoder housing	•	A-C
	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, axial	–	A5
	connector, M16x0.75, 5-pin, radial	–	R5
	connector, M16x0.75, 6-pin, axial	–	A6
	connector, M16x0.75, 6-pin, radial	–	R6
	connector, M16x0.75, 8-pin, axial	•	A8
	connector, M16x0.75, 8-pin, radial	•	R8
	connector, M16x0.75, 12-pin, axial	•	A12
	connector, M16x0.75, 12-pin, radial	•	R12
	connector, M16x0.75, 7-pin, axial	–	A7
	connector, M16x0.75, 7-pin, radial	–	R7
	connector, M23, 12-pin, axial	•	A12M
	connector, clockwise pin count, M23, 12-pin, axial	•	AC12
	connector, M23, 12-pin, radial	•	R12M
	connector, clockwise pin count, M23, 12-pin, radial	•	RC12
	sensor-connector, M12x1, 4-pin, axial	–	AS4
	sensor-connector, M12x1, 4-pin, radial	–	RS4
	sensor-connector, M12x1, 5-pin, axial	–	AS5
	sensor-connector, M12x1, 5-pin, radial	–	RS5
	sensor-connector, M12x1, 8-pin, axial	•	AS8
	sensor-connector, M12x1, 8-pin, radial	•	RS8
	sensor-connector, M12x1, 12-pin, axial	•	AS12
	sensor-connector, M12x1, 12-pin, radial	•	RS12

Options

Description	Order key
Low-friction bearings	LB
IP67	IP
Low temperature	LT
Pressure equalising membrane	PE
Without option	Empty
Cable length	XXX = Decimeter

Example Order No.:	EI30 P 067 SQ	4Z	5000	N	C6	A-N	EI30 P 067 SQ	Your encoder
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Código de producto

Denominación del artículo: EABB CCCDDEE FFFFFFF GHJJKK LLMNNOPPP RR

A	Tipo de codificador rotatorio I: Incremental S: Absoluto, Singleturn M: Absoluto, Multiturn
BB	Serie 10: Entry 30: Basic 50: Extended 70: Advanced
CCC	Diámetro de la brida 024: 24 mm 036: 36 mm 058: 58 mm 063: 63 mm 067: 67 mm 070: 70 mm 080: 80 mm 100: 100 mm 115: 115 mm
DD	Tipo de brida BB: Eje hueco con orificio ciego CC: Brida de sujeción (diseño compacto) CF: Brida de sujeción (alimentos y bebidas) CH: Brida de sujeción (ejecución para carga pesada) CL: Brida de sujeción HI: Eje hueco (aislado) HO: Eje hueco HT: Eje hueco (brazo de torsión especial) RC: Brida redonda (36/40 brida de sujeción, 58 con eje de 6 mm) RE: Brida redonda (orificios ampliados) RN: Brida redonda SC: Acoplamiento de estátor SF: Brida roscada (53 brida de sujeción, 58 alimentos y bebidas) SI: Brida servo (carga del eje y protección IP ampliadas) SQ: Brida cuadrada SR: Brida roscada (36/40 brida de sujeción, 58 resistente a la corrosión) SY: Synchro (incremental), Servo (36), Synchro (58) (absoluto) TM: Tacómetro (115 con eje de 1 mm, 58 retroalimentación del motor) TS: Tacómetro (eje de 10 mm)
EE	Diámetro del eje/orificio 06: 6 mm 07: 7 mm 08: 8 mm 08: 8 mm 10: 10 mm 11: 11 mm 12: 12 mm 14: 14 mm 15: 15 mm 06-72: Orificio hueco/ciego (6 ... 72 mm)
FFFFFF	Señal/Resolución Axxxx: A Bxxxx: AB Nxxxx: ABN P16384: Programable xx: Singleturn, 1 ... 16 bits xx: Multiturn, 0 ... 43 bits (00 con Singleturn)
G	Separación galvánica (solo absoluto) 0: sin 1: con
HH	Alimentación de tensión (solo absoluto) 0: 10 ... 32 V CC/con separación galvánica 1: 4,75 ... 5,5 V CC 2: 18 ... 30 V CC
J	Principio de funcionamiento M: magnético O: óptico P: interpolado ópticamente

Código de producto

KK	Interfaz 01: RS485 07: SSI binario 08: SSI Gray 35: CANopen 38: EtherCAT 48: PROFINET 58: EtherNet/IP
LL	Conexión eléctrica M08: Conector redondo M8 M12: Conector redondo M12 M16: Conector redondo M16 M23: Conector redondo M23 M12BC: Conector de cubierta de bus
M	Salida de cable A: Axial R: Radial T: Tangencial
NN	Número de polos xx: Número de polos
O	Conexión de blindaje (cable de 2 m) (opcional) C: conectado N: no conectado
PPP	Longitud de cable xxx: Longitud de cable (en dm)

Nota

	Encontrará una lista con todos los tipos de equipo disponibles en el sitio web de Leuze: www.leuze.com .
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