Folha de dados técnicos

Informações sobre a série de encoders

N.º do art.: 90000390

EI30-P 067 SQ

A imagem pode divergir

Conteúdo

Codificador_série	EI 067 SQ
Codificador_princípio básico	incremental
Codificador_princípio de funcionamento	interpolado opticamente
Codificador_diâmetro do flange	Ø 67 mm
Codificador_tipo de flange	Flange quadrado
Codificador_eixo maciço/eixo oco	Eixo oco
Codificador_diâmetro do eixo	Ø 10 mm
	Ø 7 mm
	Ø 8 mm
Codificador_tensão de alimentação	10 ... 30 V CC
	4,75 ... 5,5 V DC
	5 ... 30V CC
Codificador_circuito de saída	1 Vss Sin/Cos
	HTL
	HTL, inv.
	TTL
	TTL, RS422 compatível, inv.
Codificador_número de impulsos	10000 I/U
	10240 I/U
	12000 I/U
	12500 I/U
	1440 I/U
	15000 I/U
	16384 I/U
	20000 I/U
	20480 I/U
	25000 I/U
	2880 I/U
	3000 I/U
	3600 I/U
	4000 I/U
	5760 I/U
	6000 I/U
	7200 I/U
	7500 I/U
	8000 I/U
	9182 I/U

Dados técnicos

Leuze

Encoder EI30 P 067 SQ

Resolution

Pulses per revolution PPR	up to 25000 PPR

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	Ø 6 mm [Ø 0.236"]
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	Ø 7 mm [Ø 0.276"]
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	Ø 8 mm [Ø 0.315"]
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	Ø 9.525 mm [Ø 3/8"] Order No: 4Z
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	Ø 10 mm [Ø 0.394"]
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)
Electrial Safety:	according DIN VDE 0160

Duty information

Customs tariff number:	90318020
Country of origin:	Germany

Dados técnicos

Leuze

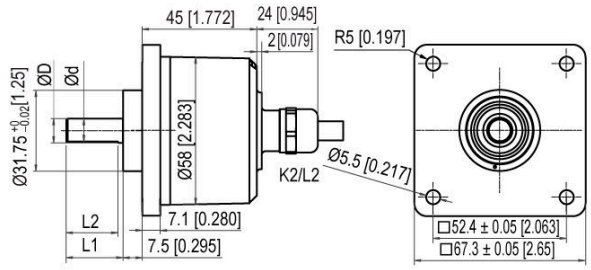
Encoder EI30 P 067 SQ

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)

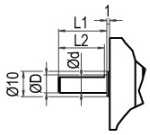
Cable connection A-N, A-C, axial, with 2 m cable

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

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

All dimensions in mm

Description		N inv. poss.
A-N	axial, shield not connected	•
A-C	axial, shield connected to encoder housing	•

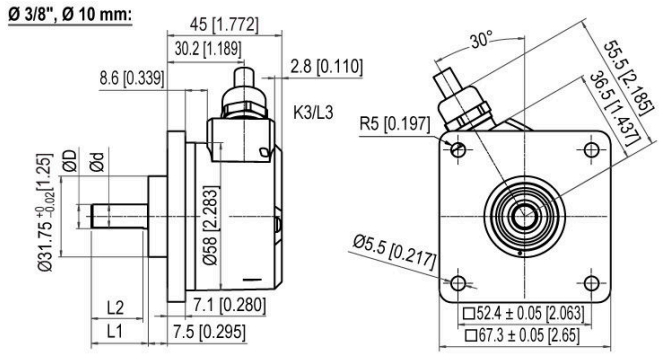
Assignments

	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

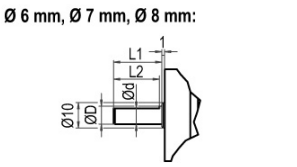
Dados técnicos

Encoder EI30 P 067 SQ

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



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



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

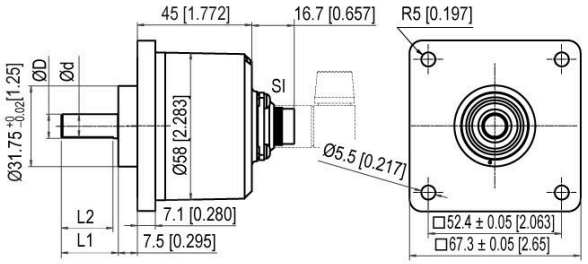
	R-N, R-C	R-N, R-C	R-C
Circuit	C3, C4, C5, C6, C7	D3, D4, D5, D6, C1, C2, D7	D8
GND	WH	WH	WH
(+) Vcc	BN	BN	BN
A	GN	GN	GN
B	YE	YE	GY
N	GY	GY	–
–	–	–	–
A inv.	–	RD	YE
B inv.	–	BK, (BU at LT)	PK
N inv.	–	VT	–
Shield	flex	flex	flex

Dados técnicos

Encoder EI30 P 067 SQ

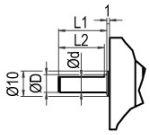
Connector (M16x0.75) A, axial, 5-, 6-, 8-, 12-pin

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

Ø 6 mm, Ø 7 mm, Ø 8 mm:

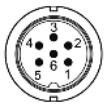
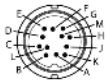
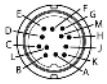


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

All dimensions in mm

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	•

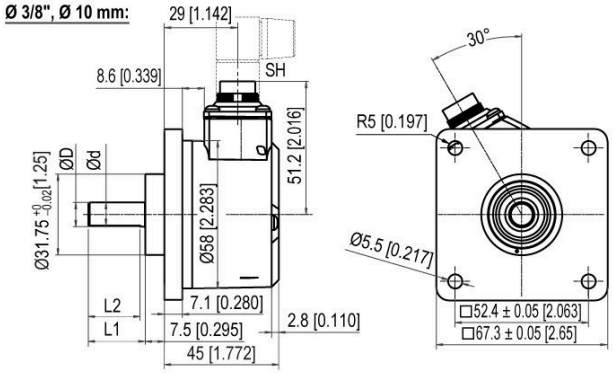
Assignments

	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	–	–	–	–	–	–

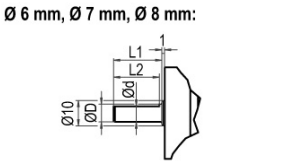
Dados técnicos

Encoder EI30 P 067 SQ

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

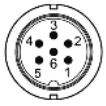
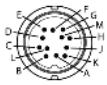
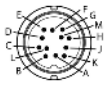


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

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

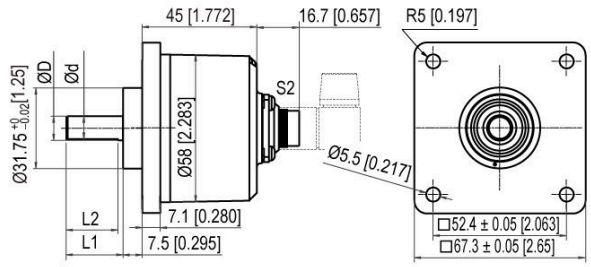
	R5	R6	R8	R8	R12	R12
	5-pin	6-pin	8-pin	8-pin	12-pin	12-pin
						
Circuit	C3, C4, C5, C6, C7	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8	C1, C2, D3, D4, D5, D6, D7	D8
GND	1	6	1	1	K, L	K, L
(+) Vcc	2	1	2	2	M, B	M, B
A	3	2	3	3	E	E
B	4	4	4	4	H	H
N	5	3	5	–	C	–
–	–	–	–	–	–	–
A inv.	–	–	6	6	F	F
B inv.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

Dados técnicos

Encoder EI30 P 067 SQ

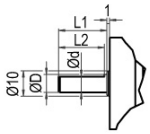
Connector (M16x0.75) A7, axial, 7-pin

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

Ø 6 mm, Ø 7 mm, Ø 8 mm:

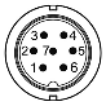


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

All dimensions in mm

Description		N inv. poss.
A7	axial, 7-pin, Connector connected to encoder housing	–

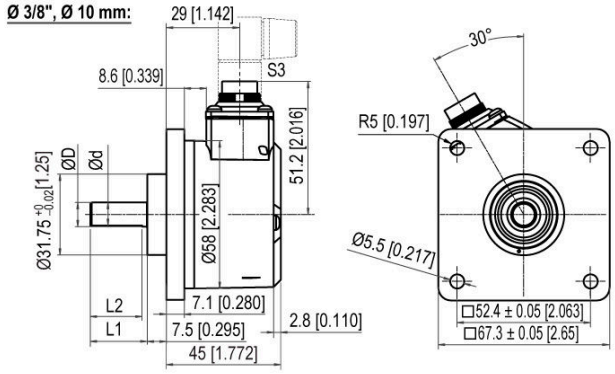
Assignments

	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	–

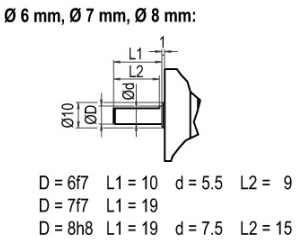
Dados técnicos

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

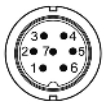


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

All dimensions in mm

Description		N inv. poss.
R7	radial, 7-pin, Connector connected to encoder housing	–

Assignments

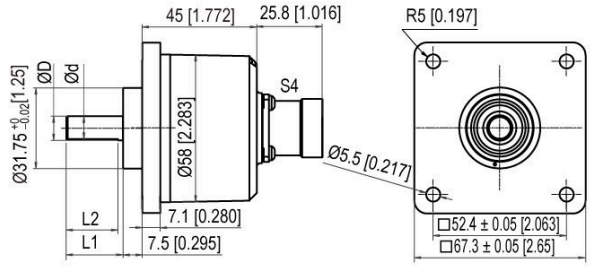
	R7
	7-pin
	
Circuit	C3, C4, C5, C6, C7
GND	1
(+) Vcc	2
A	3
B	4
N	5
–	–
A inv.	–
B inv.	–
N inv.	–
n. c.	6, 7
Shield	–

Dados técnicos

Encoder EI30 P 067 SQ

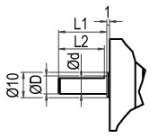
Connector (M23) A12M, axial, 12-pin

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

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

All dimensions in mm

Description		N inv. poss.
A12M	axial, 12-pin, Connector connected to encoder housing	–

Assignments

	A12M 12-pin	A12M 12-pin	A12M 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	–	–	–

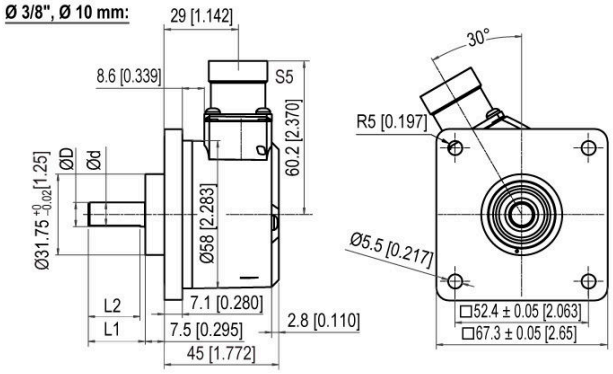
Dados técnicos

Leuze

Encoder EI30 P 067 SQ

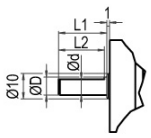
Connector (M23) R12M, radial, 12-pin

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

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

All dimensions in mm

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

Assignments

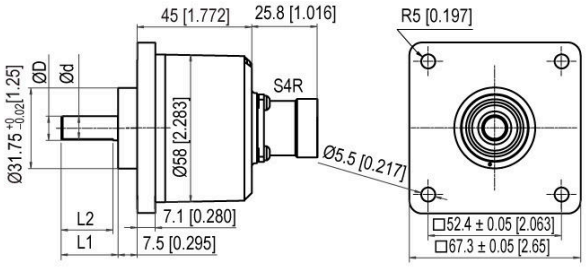
	R12M 12-pin	R12M 12-pin	R12M 12-pin
			
Circuit	C3, C4, C5, C6, C7	C1, C2, D3, D4, D5, D6, D7	D8
GND	10	10	10
(+) Vcc	12	12	12
A	5	5	5
B	8	8	8
N	3	3	–
–	–	–	–
A inv.	–	6	6
B inv.	–	1	1
N inv.	–	4	–
n. c.	1, 2, 4, 6, 7, 9, 11	2, 7, 9, 11	2, 3, 4, 7, 9, 11
Shield	–	–	–

Dados técnicos

Encoder EI30 P 067 SQ

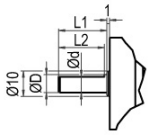
Connector (M23) AC, axial, 12-pin (clockwise)

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

Ø 6 mm, Ø 7 mm, Ø 8 mm:

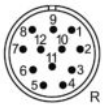
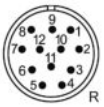
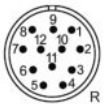


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

All dimensions in mm

Description		N inv. poss.
AC12	axial, 12-pin, Connector connected to encoder housing	•

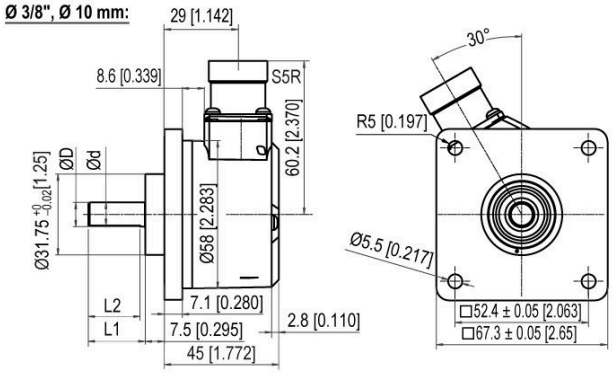
Assignments

	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	–	–	–

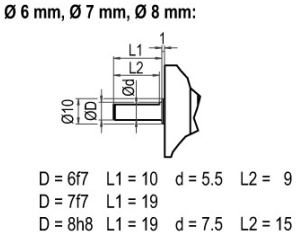
Dados técnicos

Encoder EI30 P 067 SQ

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



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

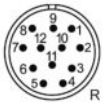
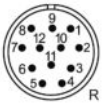
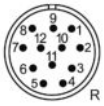


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

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	–	–	–

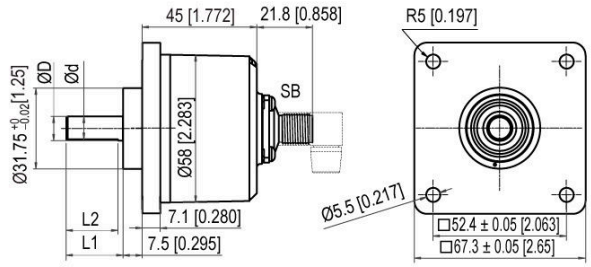
Dados técnicos

Leuze

Encoder EI30 P 067 SQ

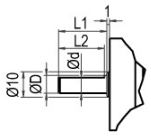
Sensor-connector (M12x1) AS, axial, 4-, 5-, 8-, 12-pin

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

Ø 6 mm, Ø 7 mm, Ø 8 mm:

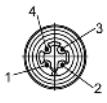
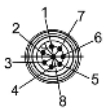
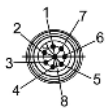


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

All dimensions in mm

Description		N inv. poss.
AS4	axial, 4-pin, Connector connected to encoder housing	–
AS5	axial, 5-pin, Connector connected to encoder housing	–
AS8	axial, 8-pin, Connector connected to encoder housing	•
AS12	axial, 12-pin, Connector connected to encoder housing	•

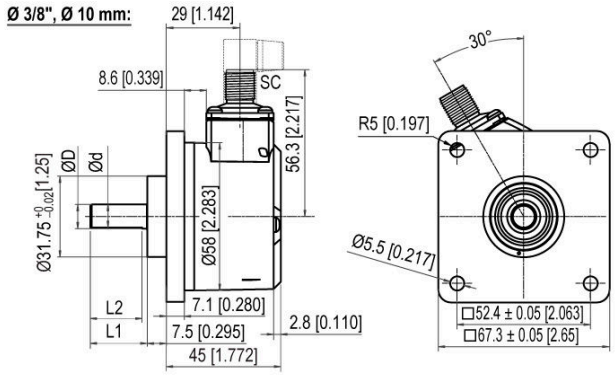
Assignments

	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	–	–	–	–	–

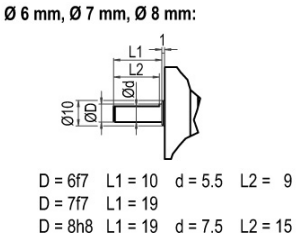
Dados técnicos

Encoder EI30 P 067 SQ

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

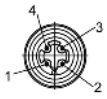
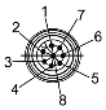
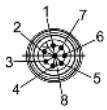


D = 6f7 L1 = 10 d = 5.5 L2 = 9
D = 7f7 L1 = 19
D = 8h8 L1 = 19 d = 7.5 L2 = 15

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	RS5	RS8	RS8	RS12
	4-pin	5-pin	8-pin	8-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
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	–	–	–	–	–

Dados técnicos

Leuze

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 Ø 10 mm [0.394"] without flat. IP67 not at 1 Vpp Sin/Cos. IP67 not at shaft Ø 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. 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.	PE

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

Dados técnicos

Leuze

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

	Resolution PPR	Power supply VDC	Output circuit	–	Order key
C6	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

Dados técnicos

Leuze

Encoder EI30 P 067 SQ

Electrical connections

	Description	N inv. poss.	Order key
	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
A-N	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**

Código do artigo

Nome do artigo: **EABB CCCDDEE FFFFFF GHHJKK LLMNNOPPP RR**

A	**Tipo de encoder rotativo** I: incremental S: absoluto, Singleturn M: absoluto, Multiturn
BB	**Série** 10: Entry 30: Basic 50: Extended 70: Advanced
CCC	**Diâmetro do flange** 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 flange** BB: eixo oco com orifício cego CC: flange de fixação (modelo compacto) CF: flange de fixação (alimentos e bebidas) CH: flange de fixação (versão para cargas pesadas) CL: flange de fixação HI: eixo oco (isolado) HO: eixo oco HT: eixo oco (braço de torque especial) RC: flange redondo (flange de fixação 36/40, 58 com eixo de 6 mm) RE: flange redondo (orifícios expandidos) RN: flange redondo SC: acoplamento do estator SF: flange aparafusado (flange de fixação 53, 58 alimentos e bebidas) SI: flange servo (carga de onda ampliada e proteção IP) SQ: flange quadrado SR: flange aparafusado (flange de fixação 36/40, 58 resistente à corrosão) SY: Synchro (incremental), Servo (36), Synchro (58) (absoluto) TM: tacômetro (115 com eixo de 1 mm, feedback do motor 58) TS: tacômetro (eixo de 10 mm)
EE	**Diâmetro do eixo/orifício** 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: orifício oco/orifício cego (6 ... 72 mm)
FFFFFF	**Sinal/resolução** Axxxxx: A Bxxxxx: AB Nxxxxx: ABN P16384: programável xx: Singleturn, 1 ... 16 Bit xx: Multiturn, 0 ... 43 Bit (00 em Singleturn)
G	**Separação galvânica (somente absoluto)** 0: sem 1: com
HH	**Alimentação de tensão (somente absoluto)** 0: 10 ... 32 V DC/com separação galvânica 1: 4,75 ... 5,5 V DC 2: 18 ... 30 V DC
J	**Princípio de funcionamento** M: magnético O: óptico P: interpolado opticamente

Código do artigo

KK	**Interface** 01: RS485 07: SSI binário 08: SSI Gray 35: CANopen 38: EtherCAT 48: PROFINET 58: EtherNet/IP
LL	**Conexão elétrica** M08: conector redondo M8 M12: conector redondo M12 M16: conector redondo M16 M23: conector redondo M23 M12BC: conector da tampa do barramento
M	**Saída do cabo** A: axial R: radial T: tangencial
NN	**Número de polos** xx: número de polos
O	**Conexão blindada (cabo de 2m) (opcional)** C: conectado N: não conectado
PPP	**Comprimento do cabo** xxx: comprimento do cabo (em dm)

Nota

Uma lista com todos os tipos de dispositivo disponíveis encontra-se na página da Leuze na Internet, em www.leuze.com.

Leuze