Scheda tecnica dati
Informazioni sulla serie di encoder
Cod. art.: 91000290
EM-M 058 CL IO



La figura può variare

Contenuto

- Dati tecnici
- Codice articoli

Serie	EM-M 058 CL
Principio di base	assoluto
Principio di funzionamento	magnetico
Diametro della flangia	Ø 58 mm
Tipo di flangia	Flangia di serraggio
Albero pieno/Albero cavo	Albero pieno
Dametro dell'albero	Ø 10 mm
	Ø 6 mm
	Ø 8 mm
Tensione di alimentazione	18 ... 30 V DC
Circuito di uscita	M12A05
	M12R05
Numero di impulsi	1 ... 16 Bit / 0 ... 43 Bit

Dati tecnici

Leuze

Encoder EM-M 058 CL IO

Mechanical Data

Flange	clamping flange
Flange material	aluminum
Housing material	stainless steel
Flange diameter	Ø 58 mm [Ø 2.283"]
Cam mounting	pitch 69 mm [2.717 inches]

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"]
Advice	Attention: No option IP = full IP67 version
Shaft length	L: 12 mm [0.472"]
Max. Permissible shaft loading radial	125 N [12.746 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]
Shaft	Ø 8 mm [Ø 0.315"]
Advice	Attention: No option IP = full IP67 version
Shaft length	L: 19 mm [0.748"]
Max. Permissible shaft loading radial	125 N [12.746 kp]
Max. Permissible shaft loading axial	120 N [12.236 kp]
Shaft	Ø 9.525 mm [Ø 3/8"] Order No: 4Z
Advice	Attention: No option IP = full IP67 version
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]
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]

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 1 x 10'11 revs. at 20 % rated shaft load
Max. operating speed	8000 rpm

Machinery Directive: basic data safety integrity level

$MTTF_d$	1300 a
Mission time (TM)	20 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	18 VDC up to 30 VDC: typ. 30 mA
Power consumption	max. 0.6 W
Operating principle	magnetic

Sensor data

Single-turn technology	innovative hall sensor technology
Single-turn resolution	65,536 steps/360° (16 bit)
Single-turn accuracy	± 0.0878° (≤ 12 bit)
Single-turn repeat accuracy	± 0.0878° (≤ 12 bit)
Internal cycle time	250 µs
Multi-turn technology	Wiegand wire technology no battery and no gear.
Multi-turn resolution	up to 32 bit with high precision value up to 43 bit.

Environmental data

ESD (DIN EN 61000-4-2):	4 kV
Burst (DIN EN 61000-4-4):	2 kV
Includes EMC:	DIN EN 61000-6-2 DIN EN 61326-2-3 DIN EN 61131-9
Vibration: (DIN EN 60068-2-6)	300 m/s^2 (10 Hz up to 2000 Hz)
Shock: (DIN EN 60068-2-27)	5000 m/s^2 (6 ms)
Electrial Safety:	DIN EN 61010-1 (VDE 0411-1) / IEC 61010-1 / UL 61010-1 / CSA C22.0 No. 61010-1-12
Turn on time:	<1 s

Duty information

Customs tariff number:	90318020
Country of origin:	Germany

Interface

Interface:	IO-Link Version: V1.1.4
Protocol:	• 2.8 Adjustable Switching Sensor, multi channel • 4.2.1 Measuring and Switching Sensor, high resolution, 1 channel • 4.2.2 Measuring and Switching Sensor, high resolution, 2 channel
Baud rate:	COM 3 230.4 kBit/s
Advice:	The standard settings and customer-specific adjustments in the parameterisation can be set using ISDUs, e.g. scaling, direction of rotation, etc.

Dati tecnici

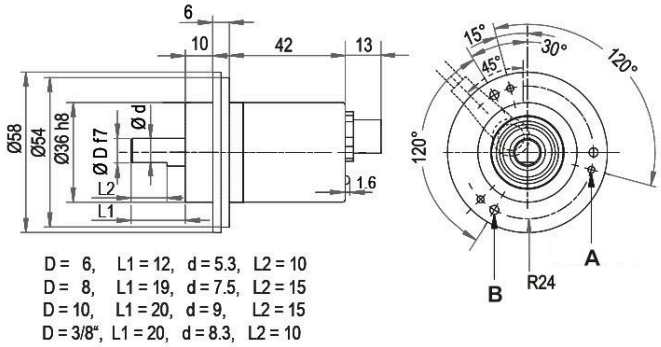
Leuze

Encoder EM-M 058 CL IO

General Data

Weight	approx. 202 g [7.125 oz]
Connections	connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65
Operating temperature	-40 °C up to +85 °C [-40 °F up to +185 °F]
Storage temperature	-40 °C up to +100 °C [-40 °F up to +212 °F]

Connector, M12x1 M12A05, axial, 5-pin



A M3x0.5 - 6H
B M4x0.7 - 6H

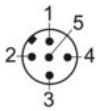
All dimensions in mm

IB5 → M12A05

Description

M12A05	axial, 5-pin, shield connected to encoder housing

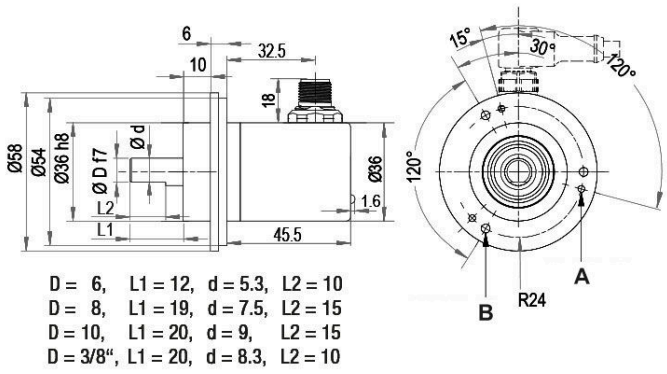
Assignments

	M12A05
	
(+) Vcc	1
GND	3
CANHigh	4
CANLow	2
CANGND shield	5

Dati tecnici

Encoder EM-M 058 CL IO

Connector, M12x1 M12R05, radial, 5-pin



A M3x0.5 - 6H
B M4x0.7 - 6H

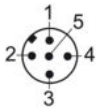
All dimensions in mm

IC5 → M12R05

Description

M12R05	radial, 5-pin, shield connected to encoder housing

Assignments

	M12R05
	
(+) Vcc	1
GND	3
CANHigh	4
CANLow	2
CANGND shield	5

Dati tecnici

Encoder EM-M 058 CL IO

Options

Low-friction bearings	Order key
The encoder EM-M 058 CL IO 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

Shafts sealed to IP67, only with Ø 10 mm shaft		Order key
The encoder EM-M 058 CL IO can be supplied in a IP67 version.		IP
Max. RPM:	3500 min^{-1}	
Permitted Shaft-Loading:	axial 100 N; radial 110 N	
Starting-torque:	approx. 4 Ncm at ambient temperature	

Dati tecnici

Encoder EM-M 058 CL IO

Example Order No.	Type	Your encoder
EM50 058 CL	EM-M 058 CL	EM50 058 CL
	Shaft	**Order key**
06	Ø 6 mm [Ø 0.236"] Attention: No option IP = full IP67 version	06
	Ø 8 mm [Ø 0.315"] Attention: No option IP = full IP67 version	08
	Ø 9.525 mm [Ø 3/8"] Order No: 4Z Attention: No option IP = full IP67 version	4Z
	Ø 10 mm [Ø 0.394"]	10
	Single-turn Resolution	**Order key**
16	Single-turn resolution 1 bit up to 16 bit: (e. G. 6 bit)	16
	Multi-turn Resolution	**Order key**
43	Multi-turn resolution: (examples) 6 bit = 6 43 bit = 43	16
	Data protocol	**Order key**
42	IO-Link	42
	Power supply	**Order key**
2	18 V up to 30 V (standard)	2
	Galvanic isolation	**Order key**
0	no	0
	Electrical connections	**Order key**
	Connector:	
M12A05	sensor-connector, M12x1, 5-pin, axial, shield connected to encoder housing	M12A05
	sensor-connector, M12x1, 5-pin, radial, shield connected to encoder housing	M12R05
	Options	**Order key**
	Without option	Empty
	Low-friction bearings	LB
	Shafts sealed to IP67, only with Ø 10 mm shaft	IP

Codice articoli

Denominazione articolo: **EABB CCCDDEE FFFFFF GHHJKK LLMNNOPPP RR**

A	**Tipo di econder rotativo** I: Incrementale S: Assoluto, monogiro M: Assoluto, multigiro
BB	**Serie** 10: Entry 30: Basic 50: Extended 70: Advanced
CCC	**Diametro della flangia** 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 di flangia** BB: Albero cavo con foro cieco CC: Flangia di serraggio (forma costruttiva compatta) CF: Flangia di serraggio (alimenti e bevande) CH: Flangia di serraggio (versione per carichi pesanti) CL: Flangia di serraggio HI: Albero cavo (isolato) HO: Albero cavo HT: Albero cavo (supporto di coppia speciale) RC: Flangia circolare (36/40 flangia di serraggio, 58 con albero da 6 mm) RE: Flangia circolare (fori ampliati) RN: Flangia circolare SC: Accoppiamento statore SF: Flangia a vite (53 flangia di serraggio, 58 alimenti e bevande) SI: Servoflangia (carico sull'albero maggiorato e protezione IP) AQ: Flangia quadrata SR: Flangia a vite (36/40 flangia di serraggio, 58 resistente alla corrosione) SY: Sincro (incrementale), Servo (36), Sincro (58) (assoluto) TM: Tachimetro (115 con albero da 1 mm, 58 feedback motore) TS: Tachimetro (albero da 10 mm)
EE	**Diametro dell'albero/del foro** 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: Foro cavo/foro cieco (6 ... 72 mm)
FFFFFF	**Segnale/risoluzione** Axxxxx: A Bxxxxx: AB Nxxxxx: ABN P16384: Programmabile xx: Monogiro, 1 ... 16 Bit xx: Multigiro, 0 ... 43 Bit (00 con monogiro)
G	**Separazione galvanica (solo valore assoluto)** 0: senza 1: con
HH	**Alimentazione di tensione (solo valore assoluto)** 0: 10 ... 32 V DC/con separazione galvanica 1: 4,75 ... 5,5 V DC 2: 18 ... 30 V DC
J	**Principio di funzionamento** M: magnetico O: Ottico P: interpolato otticamente

Codice articoli

KK	**Interfaccia** 01: RS485 06: SSI binario 07: SSI Gray 08: Ethernet universale 35: CANopen 38: EtherCAT 42: IO-Link 48: PROFINET 58: EtherNet/IP 68: CANopen lift 78: CAN SAE J1939
LL	**Collegamento elettrico** M08: Connettore circolare M8 M12: Connettore circolare M12 M16: Connettore circolare M16 M23: Connettore circolare M23 M12BC: Connettore bus con calotta.
M	**Uscita cavi** A: Assiale R: Radiale T: Tangenziale
NN	**Numero di poli** xx: Numero di poli
O	**Connettore schermato (cavo da 2 m) (opzionale)** C: collegato N: non collegato
PPP	**Lunghezza del cavo** xxx: Lunghezza del cavo (in dm)

Avviso



↳ È possibile trovare una lista con tutti i tipi di apparecchi disponibili sul sito di Leuze all'indirizzo www.leuze.com.

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