技术数据表

旋转编码器系列信息

配件编号: 91000250

EM-M 036 RN IO



图片可能不同

内容

- 技术参数
- 产品型号描述

系列	EM-M 036 RN
基本原理	绝对
工作原理	磁性
法兰直径	Ø 36 mm
法兰型号	圆型
实心轴/空心轴	实心轴
轴直径	Ø 6 mm
供电电压	18 ... 30 V DC
输出电路	IB5
	IC56
脉冲数	1 ... 16 Bit / 0 ... 43 Bit

技术参数

Encoder EM-M 036 RN IO

Mechanical Data

Flange	round flange
Flange material	aluminum
Housing material	stainless steel
Flange diameter	Ø 36 mm [Ø 1.417"]

Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 0.3 Ncm [0.425 in-ozf] at ambient temperature

Shaft	Ø 6 mm [Ø 0.236"]
Shaft length	L: 12 mm [0.472"]
Max. Permissible shaft loading radial	80 N [8.157 kp]
Max. Permissible shaft loading axial	50 N [5.098 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	12000 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 12000 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.

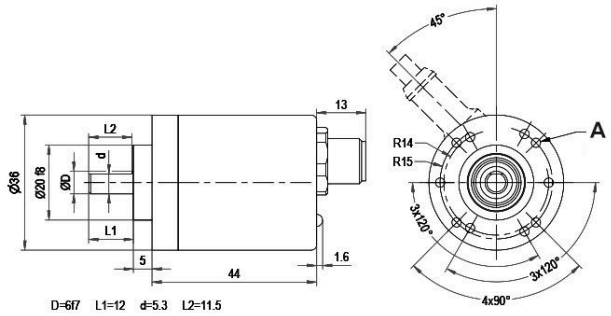
General Data

Weight	approx. 112 g [3.951 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]

技术参数

Encoder EM-M 036 RN IO

Connector, M12x1 M12A05, axial, 5-pin



A 10x M3x0.5-6H, 5 deep

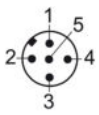
All dimensions in mm

IB5 → M12A05

Description

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

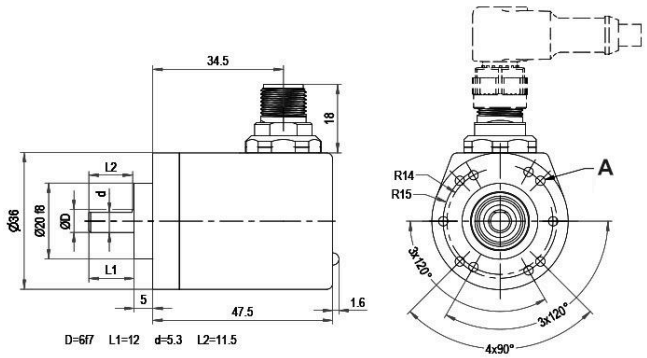
Assignments

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

技术参数

Encoder EM-M 036 RN IO

Connector, M12x1 M12R05, radial, 5-pin



A 10x M3x0.5-6H, 5 deep

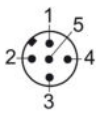
All dimensions in mm

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

技术参数

Encoder EM-M 036 RN IO

Options

Low-friction bearings	Order key
The encoder EM-M 036 RN IO is also available as a particularly smooth- running low-friction encoder. The starting torque is thereby changed to ≤ 0.25 Ncm [0.354 in-ozf] and the protection class at the shaft input to IP50.	LB

技术参数

Encoder EM-M 036 RN IO

Example Order No.	Type	Your encoder
EM50 036 RN	EM-M 036 RN	EM50 036 RN
	Shaft	**Order key**
06	Ø 6 mm [Ø 0.236"]	06
	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

产品型号描述

产品名称： EABB CCCDDEE FFFFFF GHHJKK LLMNNOPPP RR

A	旋转编码器型号 I：增量 S：绝对，单圈 M：绝对，多圈
BB	系列 10：条目 30：基本型 50：扩展型 70：高级版
CCC	法兰直径 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	法兰型号 BB：带有盲孔钻孔的空心轴 CC：夹紧法兰（紧凑结构形式） CF：夹紧法兰（食品和饮料） CH：夹紧法兰（重负载规格） CL：夹紧法兰 HI：空心轴（绝缘） HO：空心轴 HT：空心轴（特殊扭矩支承） RC：圆形法兰（36/40 夹紧法兰，58 带 6-mm-轴） RE：圆形法兰（扩展钻孔） RN：圆形法兰 SC：定子联轴器 SF：螺栓法兰（53 夹紧法兰，58 食品和饮料） SI：伺服法兰（高级轴负载和 IP 地址） SQ：方形法兰 SR：螺栓法兰（36/40 夹紧法兰，58 耐腐蚀） SY：同步（增量），伺服 (36)，同步 (58)（绝对） TM：转速计（115 带 1-mm-轴，58 电机反馈） TS：转速计（10-mm-轴）
EE	轴-/钻孔直径 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：空心/盲孔钻孔 (6 ... 72 mm)
FFFFFF	信号/分辨率 Axxxxx: A Bxxxxx: AB Nxxxxx: ABN P16384：可编程 xx：单圈，1 ... 16 位 xx：多圈，0 ... 43 位（单圈时为 00）
G	电隔离（仅绝对） 0：无 1：带有
HH	供电电源（仅绝对） 0：10 ... 32 V DC/带电隔离 1: 4.75 ... 5.5 V DC 2: 18 ... 30 V DC
J	工作原理 M：磁性 O：光学 P：光学插值

产品型号描述

KK	接口 01: RS485 06：SSI 二进制 07：SSI Gray 08：通用以太网 35: CANopen 38: EtherCAT 42：IO-Link 48: PROFINET 58: EtherNet/IP 68：CANopen lift 78：CAN SAE J1939
LL	电气连接 M08：圆形插头 M8 M12：圆形插头 M12 M16：圆形插头 M16 M23：圆形插头 M23 M12BC：总线罩插头
M	电缆出口 A：轴向 R：径向 T：正切
NN	引脚数 xx：引脚数
O	屏蔽接口（2-m-电缆）（可选） C：已连接 N：未连接
PPP	电缆长度 xxx：电缆长度（单位为 dm）

注意

↳ 所有可用设备类型列表请查阅劳易测的网站 www.leuze.com。

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