



CHARACTERISTICS

ENCODER TYPE	Hollow Shaft encoder, Micro
APPROVAL	II 2 G/D Eex d IIC T6
SMD - TECHNOLOGY	Strong compact electronics
HIGH IP-RATING	IP 64 standard (option: IP 67)
LOW CURRENT CONSUMPTION	To be connected directly to PLC'S and counters
SHORT CIRCUIT PROTECTION	Thermal shut down at 155°C
POWER SUPPLY	5V ± 10%
STRONG MEC. CONSTRUCTION	Based on 2 precision ballbearings for industrial environments

ELECTRICAL SPECIFICATIONS

	At +25°C
Output	Totempole
Output waveform	Incremental (A, B)
Zero or index pulse	(Z) one pr./rev.
Supply-voltage	5V ± 10%
Current (no load)	35mA
Max. load pr. output	20mA
V out low	Max 500 mV at I out low = 10 mA
Operating temp.	-20°C to +70° C
Storage temp.	-20° C to +85°C
Max. pulse frequency	200 kHz
V out high	Min. (Vin -0,6) @ I = -10mA Min. (Vin -1,3) @ I = -25mA
Cable data	8 leads
Output signals	Differential (RS-422A compatible)
EMC Certified acc. to	EN 50081-1 and EN 50082-2*
Eex certified acc. to	EN 50014 and En 50018 and 94 / 9 / EC (ATEX)

MECHANICAL SPECIFICATIONS

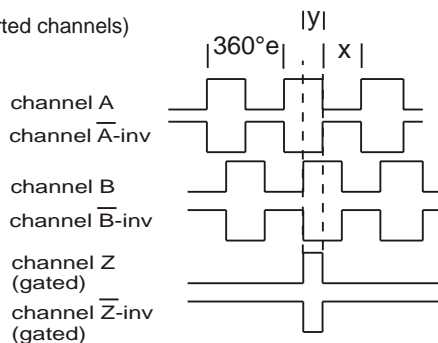
Weight, excl. Cable	About 80 g
Materials:	
Housing	Brass / Aluminum
Shaft	Brass
Bearings	Lifetime lubricated ball-bearings
H.-Shaft dimensions	Ø2, Ø3, 1/8" (Ø3,175)
H.-Shaft loads	Axial max. 10 N Radial max. 10 N
Max speed	12,000 rev./min.
IP-rating	IP 64. IP 67
Start torque	<0,001 Nm at 25°C
Massmoment of inertia	0.2 gcm ²
Max. shock	100 G/11 ms.
Bump	10 G - 16 ms (1000 x 3axis)
Vibration	(10 - 2000 Hz)/10 G

OUTPUT WAVEFORM



Rotation: Clockwise (cw) from shaftside

($\bar{\text{inv}}$ = inverted channels)



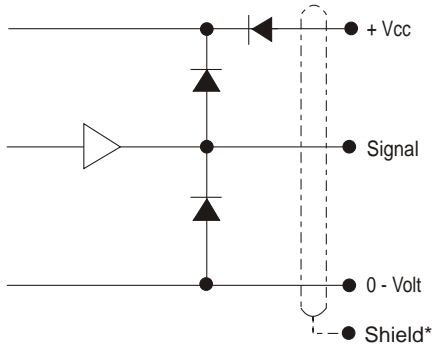
X = 180°e ± 36°e and Y = 90°e ± 18°e
Z puls: Gated with A and B (standard)

Options: TTL or HTL compatible. Open Collector NPN or PNP
Gated Z-puls or none-gated Z-puls.
View more Output options 52 - page 1

MECHANICAL DIMENSIONS

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OUTPUT CIRCUIT



* Shield connected to housing

CONNECTIONS

8 lead cable

Color code	Differential
Pink	Ch A
Grey	Ch A inv
Green	Ch B
Yellow	Ch B inv
White	Ch Z
Brown	Ch Z inv
Red	Vcc
Blue	0-Volt

ORDERING CODES

	Options	Ordering codes
Pulses pr. Rev.:	No. of pulses	XXXX
Output signal:	Standard	00N
	Differential	00D
	Inverted	00I
	Normal OC NPN	NPN
Shaft dimensions:	ø2 x 15 mm	02
	ø3 x 15 mm	03
	ø1/8" (Ø3,175) x 15 mm	1/8
IP-rating:	IP 64 Standard	64
	IP 67	67
Length of cable:	Standard 1 meter	01
	No. of meters	XX
Cable take out:	Side	S
	Back	B
	24° deg.	V
Face Mount	Face A	A

PULSES/REV.

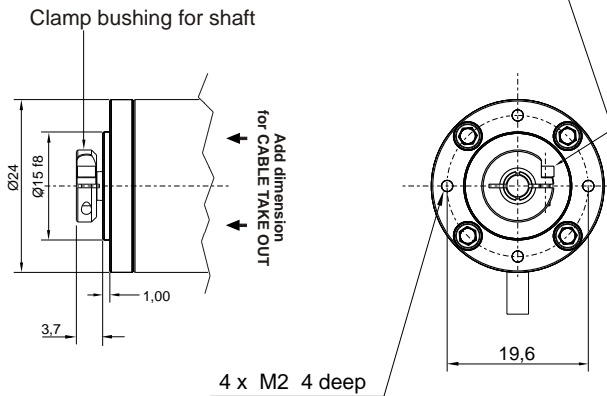
100	300	500	2000	3600
125	360	1024	2500	5000

FACE MOUNT

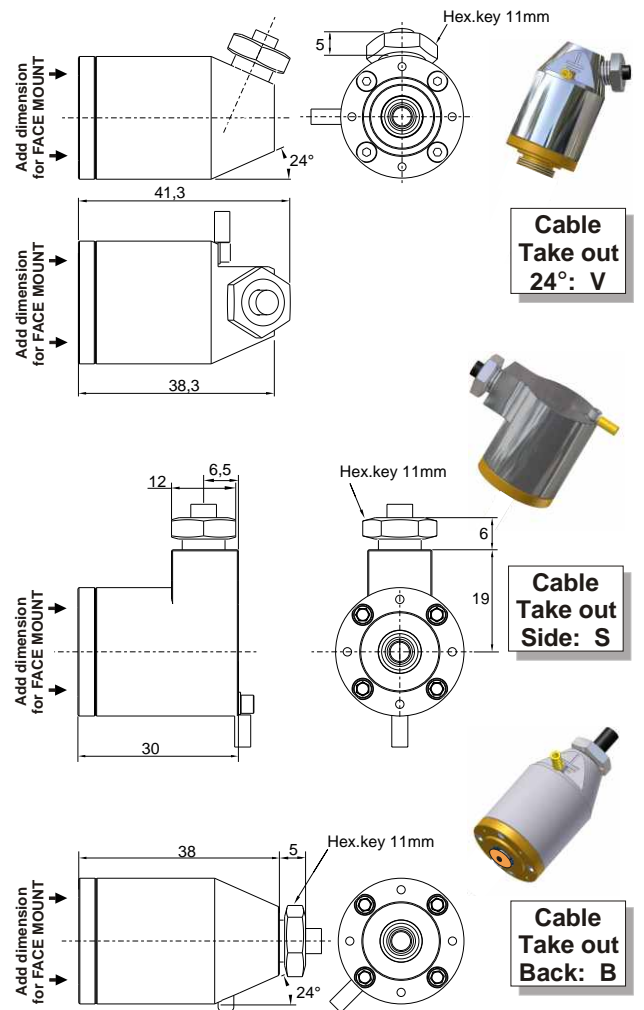
Option

Face mount: A
Hollow Shaft:
ø2 x 15 mm deep
ø3 x 15 mm deep
1/8" x 15 mm deep

Hex-Key 1,27 max. torque 0,4Nm



CABLE TAKE OUT



2MC-EX-H- - - **AL** - - - - - - -

Pulses/revolution Material Output signal Hollow Shaft ø IP- rating Length of cable Cable take out Face mount