



MH 700



Absolute Multi-Turn Hollow Shaft Encoder

CHARACTERISTICS

- Housing Size 70 mm
- Gearless and Battery Free Design
- Blind Hole Shaft Diameter from 20 to 36 mm
- Resolutions Single-Turn from 1 to 16 Bit
- Resolutions Multi-Turn from 1 to 20 Bit
- Supply Voltage 5 VDC or 10 to 30 VDC

MECHANICAL SPECIFICATIONS

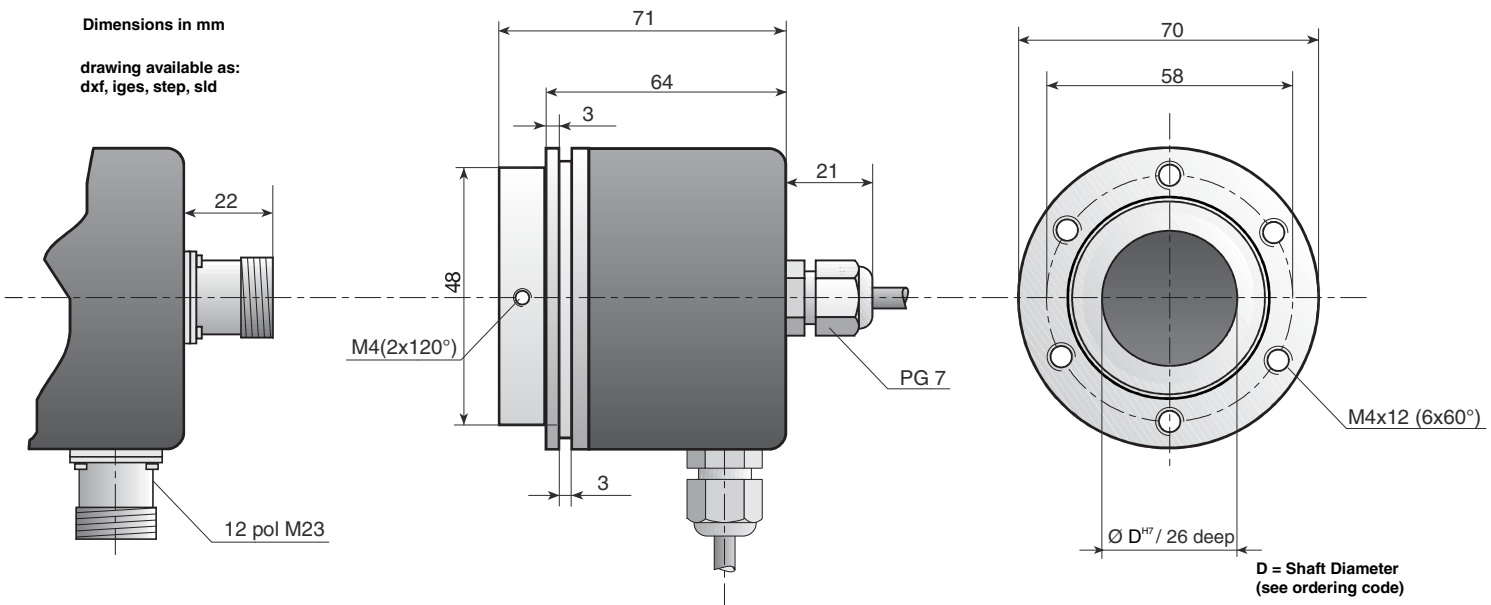
Cover & Body	Aluminum
Shaft	Stainless Steel
max. Speed	6000 RPM
Mass moment of inertia	$\leq 2.5 \cdot 10^{-6}$ kgm ²
Starting Torque (at 25°C)	> 0.05 Nm
max. Loading on Shaft	Axial 40 N, Radial 30 N
Shock resistance (6 ms)	≤ 2000 m/s ²
Vibration resistance (55 - 2000 Hz)	≤ 300 m/s ² (Cable) ≤ 150 m/s ² (Plug)
Protection Rate (DIN EN 60529)	IP 65
Operating Temperature	-20° C to +70° C +100° C (optional)
Weight	ca. 0.25 kg



DIMENSIONS

Dimensions in mm

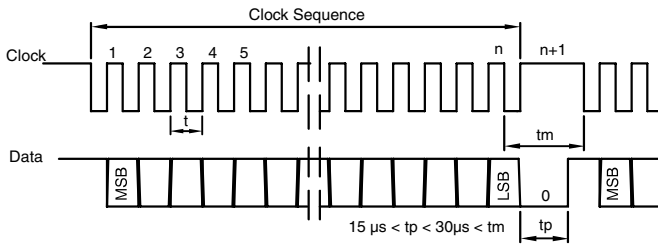
drawing available as:
dxf, iges, step, sld



ELECTRICAL SPECIFICATIONS SSI OUTPUT

Supply Voltage	5 VDC , 8 - 30 VDC
Current Consumption (no load)	max. 85 mA @ 27 VDC
Output Circuit	RS485/RS422 compatible
Pulse frequency	max. 500 kHz
Direction Setting DIR <->	DIR = GND → cw, DIR = Vcc → ccw
Preset/Reset Setting	Set: Preset = Vcc for 2s Reset: Preset = GND
Short Circuit Protection	100%
Reverse polarity protection per channel	100%

SIGNALS SSI OUTPUT



SSI Single Transmission Protocol

CONNECTIONS SSI OUTPUT

Function	Cable Code	12 Pol M23 Plug
GND	white	01
Vcc	brown	02
SSI Clock +	green	03
SSI Clock -	yellow	04
SSI Data +	grey	05
SSI Data -	pink	06
Reset/Preset ^{*1}	blue	07
Direction Setting/DIR	red	08

Notes:

*1 Vcc for 2 seconds to reset. Connect to GND for normal operation.

ELECTRICAL SPECIFICATIONS CANOPEN OUTPUT

Supply Voltage	4.75 - 32 VDC
Power Consumption	max. 0.5 W
Protocol	CANopen
Baudrate	10kBaud up to 1MBaud
Node Number	1 up to 127 (default 127)
Short Circuit Protection	100%
Reverse polarity protection per channel	100%
ESD (DIN EN 61000-4-2)	8kV
Burst (DIN EN 61000-4-4)	2 kV

CONNECTIONS CANOPEN OUTPUT

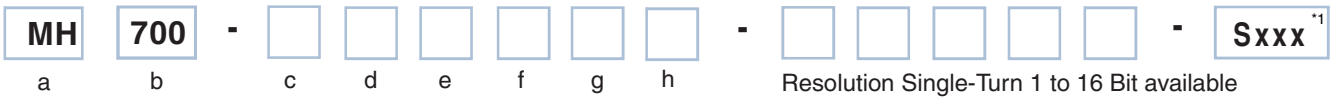
Function	Cable Code
GND	white
Vcc	brown
CANHigh	green
CANLow	yellow
CANGND shield	shield



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Absolute Multi-Turn Hollow Shaft Encoder

ORDERING CODE



Resolution Single-Turn 1 to 16 Bit available
Resolution Single-Turn 1 to 43 Bit available

a Group Function
MH = Absolute Multiturn Hollow Shaft

b Basic Series Number
700

c Shaft Diameter D
selectable from 20 to 36 mm
20 = 20 mm, 31 = 31 mm, 36 = 36 mm

d Mechanical Option
Y = Blind Hole Hollow Shaft

e Connection Type
0 = 2 m Cable , 7 = 12 Pin M23 Plug

f Connection Location
A = Axial , R = Radial

g Output Signals
J = Binary Code SSI
Y = Gray Code SSI
R = CANopen

h Output Circuit Type / Supply Voltage
F = SSI 5 VDC
G = SSI 8 bis 30 VDC
Y = CANopen 4.75 to 32 VDC

Notes:

*1 Any special functions and design will be designated by a 4 digit code (Sxxx) at the end of the part number.
Consult our Office for your region for further details. If this encoder does not fit your need please also consult us for help.

FURTHER INFORMATION

Accessories:

Corresponding accessories, such as couplings, measuring wheels, display modules, extension cables etc., for this encoder can be found on our homepage www.globalencoder.com under „Accessories“.

