ROTAMAG

Magnetic incremental encoders

series **MI58 • MI58S**

- Magnetic sensing, incremental
- Exceptional shock resistance
- IP67, sealed circuits

MI58

MI58S

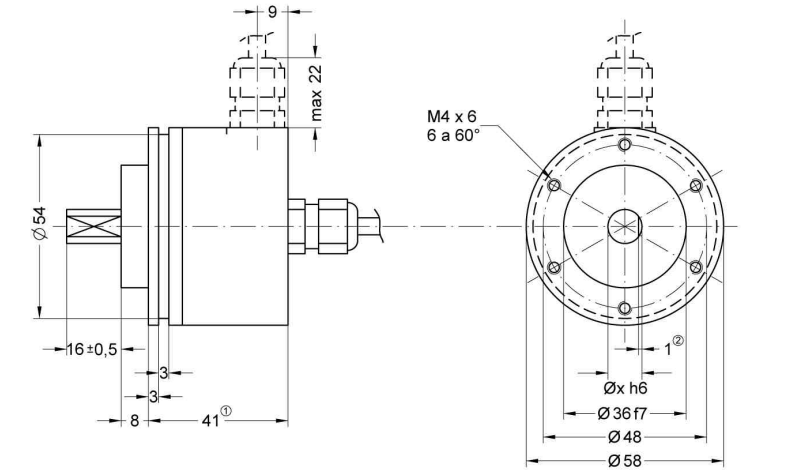
ENVIRONMENTAL SPECIFICATIONS	
Shock:	100 g, 6 ms (acc. to MIL STD 202F)
Vibrations:	10 g, 5-2000 Hz (acc. to MIL STD 202F)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H.without condensation)
Protection:	IP64
Options:	• IP67 Protection (only with cable output)

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft:	Ø 6, 8, 9.52, 10, 12 mm
Shaft loading (axial and radial):	100 N max.
Shaft rotational speed:	12000 rpm max.
Starting torque at 20°C:	MI58: 0,15 Ncm (typical) MI58S: 0,40 Ncm (typical)
Moment of inertia:	~15 gcm^2
Bearings life:	10^9 rev. min.
Weight:	~ 0,3 kg (10,6 oz)

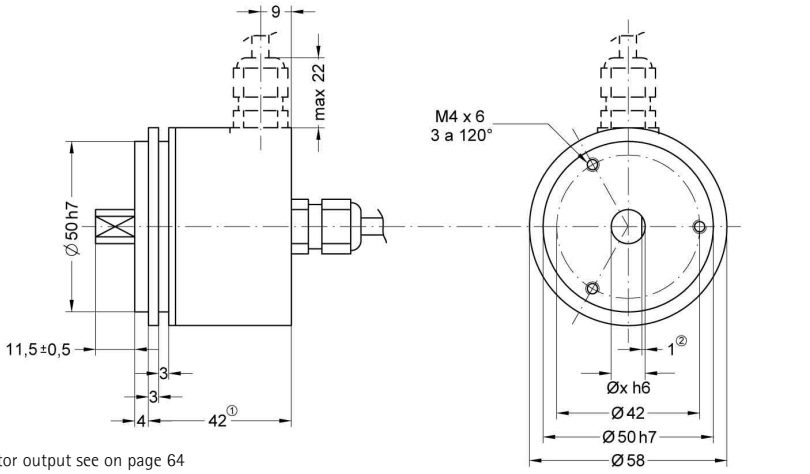
ELECTRICAL SPECIFICATIONS	
STD pulse rate (other PPR upon request):	20-40-80-160-200-320-400-500-640-800-1000 1280-1600-2000-2500-2560-5000-10000
Power supply:	+5V±5%, +10V +30V,+5V +30V
Output circuits:	Push-Pull, Line Driver, PP/LD
Output current (per channel):	40 mA max.
Output frequency:	500 kHz max.
Input current:	60 mA max.
Protection:	against inversion of polarity (except +5V version) outputs are protected against short-circuit (except Line Driver version)

MATERIALS	
Flange:	non corroding
Housing:	non corroding
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic

ACCESSORIES	
E7MLS:	7 pin MIL mating connector
E10MLS:	10 pin MIL mating connector
T3475001:	7 pin TUCHEL mating connector
T3635000:	12 pin TUCHEL mating connector
EPFL 121:	12 pin CONNEI mating connector
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps



MI58



MI58S

(1) Mechanical dimensions with connector output see on page 64
(2) 0,5 mm with Ø 6 shaft

ORDERING CODE

XXXX - X - XXXX X X X X X X

SERIES

MI58 - MI58S

OUTPUT CIRCUITS

Push-Pull	Y
Line Driver AD26LS31 or equiv.	L
PP/LD universal circuit	H

PULSE RATE (PPR)

See electrical specifications	

OUTPUT SIGNALS CONFIGURATION

Bidirectional	B
Bidirectional with Index pulse	Z

ELECTRICAL CONNECTIONS

N	Normal output	F	5 wires cable, 1m. (3.3 ft)
		C	7 pin TUCHEL connector
		D	7 pin IP65 MIL connector
C	Complementary outputs	U	8 wires cable, 1 meter (3.3 ft)
		V	12 pin TUCHEL connector
		P	10 pin IP65 MIL connector
		Z	12 pin CONNEI connector

SUPPLY VOLTAGE VS OUTPUT CIRCUIT

+5V±5% (L output circuit)	1
+10V ÷ +30V (N, P and Y output circuits)	2
+5V ÷ +30V (PP/LD universal circuit)	4

SHAFT DIAMETER

6	6 mm
8	8 mm
9.52	9.52 mm / 3/8"
10	10 mm
12	12 mm

ADDITIONAL CODE (indicate only if necessary)

X X X

Lx	Cable length on request Ex.: L4 = 4 meters (13.2 ft) L7 = 7 meters (23.0 ft)

J	IP67 Protection (only with cable output)

R	Side mount cable or connector