

ROTAPULS

Incremental encoders

series

I65 • IT65



I65



IT65

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:	-20°C +70°C (-4°F +158°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H.without condensation)
Protection:	IP65
Options:	• Operating temperature range: -40°C +100°C (-40°F +212°F) • IP66 Protection shaft end (torque 2,5 Ncm and 3000 rpm max.)

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:	6000 rpm max.
Starting torque at 20°C:	≤ 1,5 Ncm (typical)
Moment of inertia:	~ 50 gcm ²
Bearings life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max)
Weight:	~ 0,3 kg (10,6 oz)

ELECTRICAL SPECIFICATIONS

STD pulse rate:	2-4-5-6-10-12-15-16-18-20-24-25-30-35-36-39
(other PPR upon request)	40-45-50-60-64-70-80-90-100-120-122 125-127-142-150-180-200-216-236-240 250-254-256-267-270-300-314-360-375 400-410-433-435-471-500-512-600-625 628-635-720-750-784-800-875-900-946 1000-1024-1068-1099-1200-1250-1270 1440-1500-1800-2000-2048-2250-2400-2500 3000-3600-4000-4096-5000-6000-9000-10000
Power supply:	+5V±5%, +10V +30V, +5V +30V
Output circuits:	NPN o.c., PNP o.c., Push-Pull, Line Driver, PP/LD
Output current (per channel):	40 mA max.
Output frequency:	100 kHz max.
Input current:	70 mA max.
Protection:	against inversion of polarity (except +5V version) outputs are protected against short-circuit (except Line Driver version)
Optoelectronic life:	100.000 hrs min.
Option:	• Output frequency up to 300 kHz max.

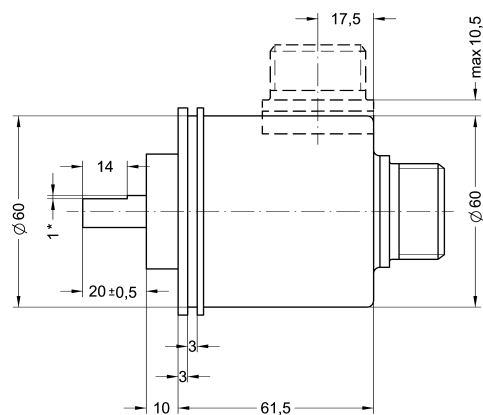
MATERIALS

Flange:	non corroding
Housing:	non corroding
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic
Light source:	GaAl diodes

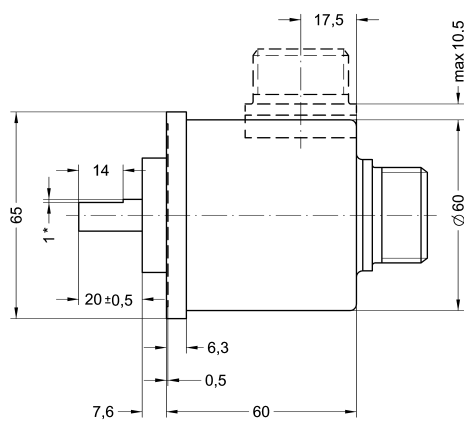
ACCESSORIES

E7MLS:	7 pin MIL mating connector
E10MLS:	10 pin MIL mating connector
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps

Specifications subject to changes without prior notice

* = 0,5mm with $\varnothing 6$ shaft

I65

* = 0,5mm with $\varnothing 6$ shaft

IT65

ORDERING CODE

ADDITIONAL CODE (indicate only if necessary)

XXXX - X - XXXX X

X X X X

X X X X X

SERIES

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OUTPUT CIRCUITS

NPN o.c. N
 PNP o.c. P
 Push-Pull Y
 Line Driver AD26LS31 or eqv. 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)
		D	7 pin IP65 MIL connector
C	Complementary outputs	U	8 wires cable, 1m. (3.3 ft)
		P	10 pin IP65 MIL connector

see on page 59-60

SUPPLY VOLTAGE VS OUTPUT CIRCUIT

+5V $\pm$ 5% (L output circuit)
 +10V $\div$ +30V (N, P and Y output circuits)
 +5V $\div$ +30V (PP/LD universal circuit)

1
2
4

SHAFT DIAMETER

B 6 mm
 C 8 mm
 D 9.52 mm / 3/8"
 E 10 mm
 F 12 mm

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

K Operating temperature range:
 -40°C + 100°C (-40°F + 212°F)

W Output frequency up to 300 kHz

Q IP66 Protection shaft side

R Side mount cable or connector