

ROTAPULS

Incremental encoders

series

I58 • I58S



I58



I58S

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:	IP64
Options:	- Operating temperature range: -40°C +100°C (-40°F, +212°F) - IP65 Protection

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft:	Ø 6, 8, 9.52, 10, 12 mm
Shaft loading (axial and radial):	20 N max I58 40 N max I58S
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	≤ 1 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	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 1000-1068-1099-1200-1250-1270-1440-1500 1800-2000-2250-2400-2500-3000-3600-4000 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.

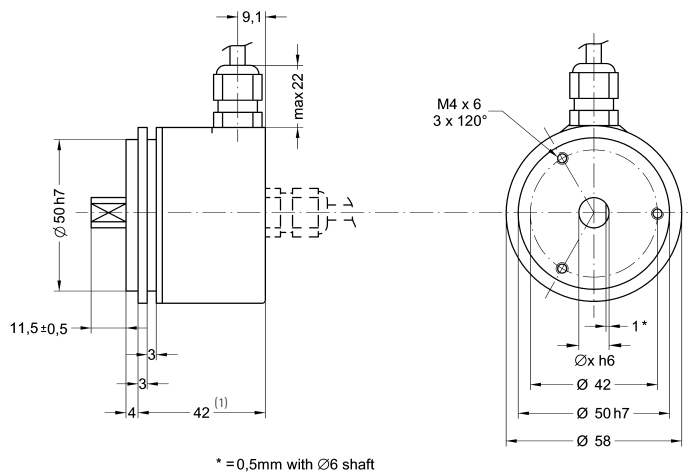
MATERIALS

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

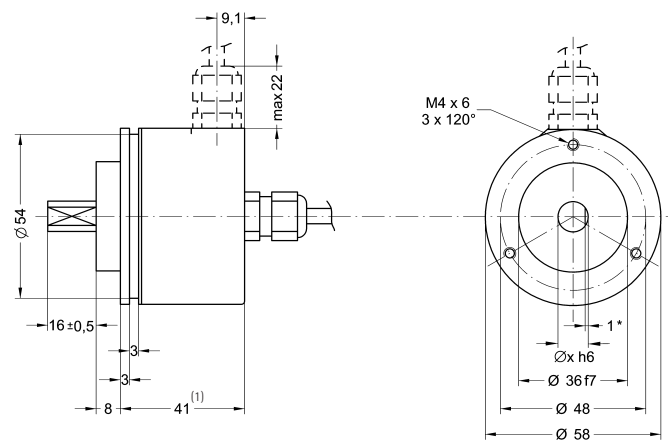
ACCESSORIES

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

Specifications subject to changes without prior notice



I58



I58S

(1) Mechanical dimensions with connector output see page 64

ORDERING CODE

XXXX	-	X	-	XXXX	X
SERIES I58 - I58S					
OUTPUT CIRCUITS NPN o.c. N PNP o.c. P 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
C	Complementary outputs	D	7 pin IP65 MIL connector
		U	8 wires cable, 1 meter (3.3 ft)
		V	12 pin TUCHEL connector
		P	10 pin IP65 MIL connector
		Z	12 pin CONNEL connector

see on page 59-60

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

ADDITIONAL CODE (indicate only if necessary)

X	X	X	X	X	X
Cable length on request Lx Ex.: L4 = 4 meters (13.2 ft) L7 = 7 meters (23.0 ft)					
Operating temperature range: -40°C + 100°C (-40°F + 212°F)					
Output frequency up to 300 kHz					
IP65 Protection					
Side mount cable or connector					