

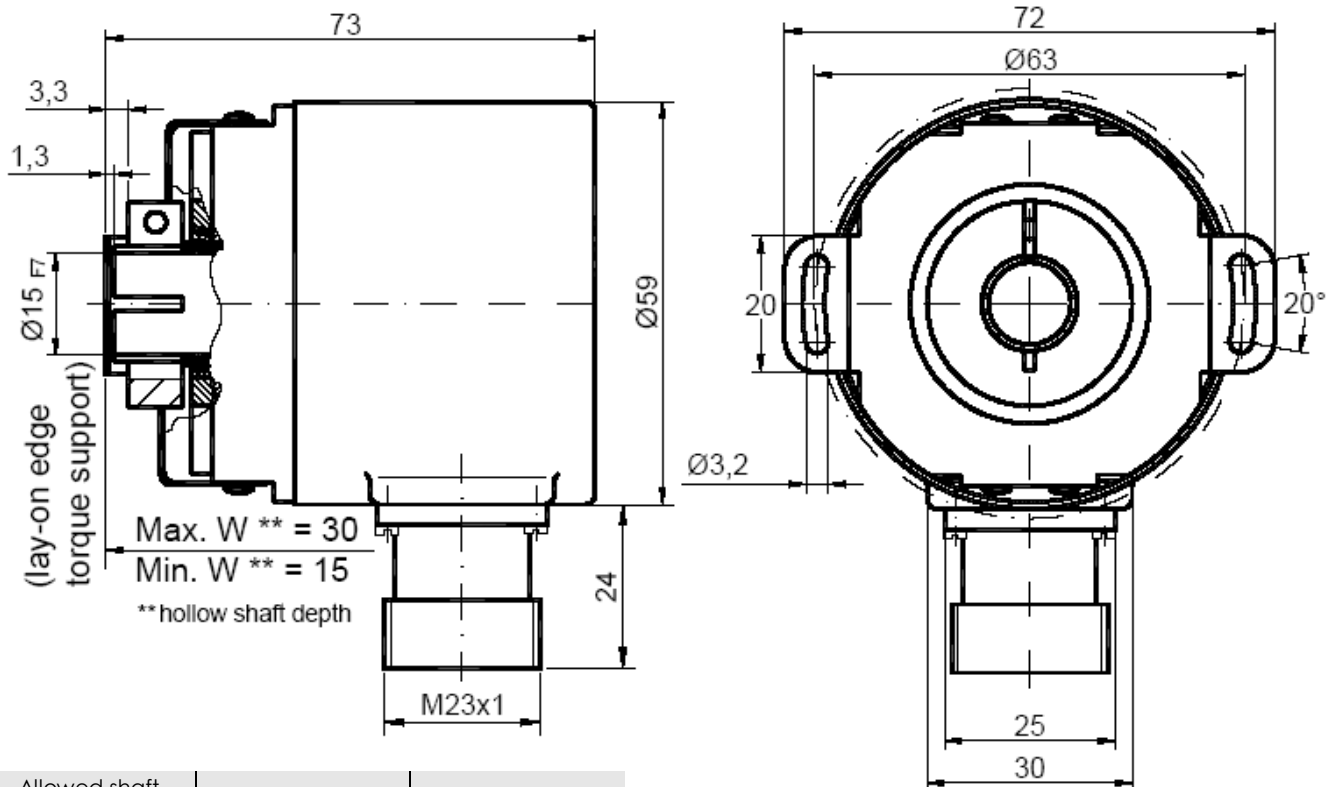
SSI ABSOLUTE MULTI-TURN ENCODER, MHK515-SSIR RANGE

MHK510-SSIR, standard encoder Ø58mm with SSI interface:

- Robust and compact conception
- Ø 15 mm blind shaft, reduction hubs available
- Precision ball bearings with sealing flange
- High temperatures performances -40°C ... +85°C
- Code disc made of unbreakable and durable plastic
- Mechanical memorisation of the number of turns by gears
- SSI transmission, GRAY code
- Resolution : 13 bits = 8192 steps/turn
- Number of turns : 12 bits = 4096 turns
- Polarity inversion and short circuit protection
- Highly integrated circuit in SMD-technology



MHK515-SSIR (radial 12 pinouts M23)



Allowed shaft movements	axial	radial
static	± 0.3 mm	± 0.5 mm
dynamic	± 0.1 mm	± 0.2 mm

Shaft diameter can be reduced to 12mm, 10mm or 8mm by reduction ring (by inserting them into the hollow shaft)

MECHANICAL CHARACTERISTICS

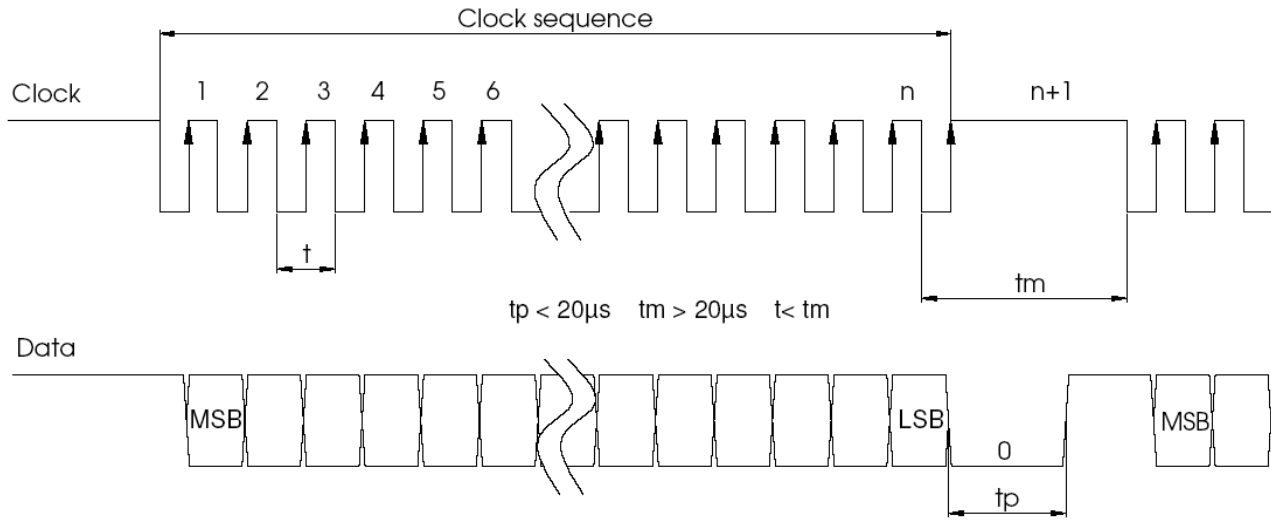
Material	Cover : aluminum	Shock (EN 60068-2-27))	≤ 100 g (halfsinus, 6 ms)
	Body : aluminum	Shock (EN 60028-2-29)	≤ 10 g (half-sinus, 16ms)
	Shaft: stainless steel	Vibrations (EN 60068-2-6)	≤ 10 g (10Hz... 1 000Hz)
Max. shaft loading	Axial : 40 N	Weight	600 g
	Radial : 110 N	Operating temperature	- 40 ... + 85°C
Shaft Inertia	≤ 30 g.cm ²	Storage temperature	- 40 ... + 85°C
Torque	≤ 3 N.cm	Humidity	98 % without condensation
RPM (continuous operation))	6 000 rpm	Protection class (EN 60529)	Cover: IP65, shaft: IP64

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ELECTRICAL DATA

Clock input	via opto-coupleur	Cycle time (Reset)	< 150 μ s
Data output	line - driver according RS422	Turn on time	< 1 s
Clock frequency	100kHz - 2MHz	Power consumption	max 1W
Accuracy	+ 1/2 LSB	Electrical life-time	> 10 ⁵ h
Supply voltage	4,75 - 30Vdc	EMC	EN 61000-6-4 EN 61000-6-2

SSI TRANSMISSION

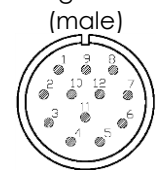


Driver	Driver meets EIA standard RS422 ; transmission rates up to 10 Mbits/s
Transfer	Transfert distance up to 1200m
Transmission	Balanced transmission provides high noise immunity
Pair lines	Shielded and twisted pair lines are essential to attain extremely high noise immunity

ELECTRICAL CONNECTION ON M23 CONNECTOR, 12 PINOUTS

Type	CLK -	CLK +	DATA +	DATA -	DIRECTION	Reset	+ Ub 4,75-30Vdc	GND
S1	1	2	3	4	8	9	11	12

Pinning encoder



INPUTS

Encoder counting direction for clockwise rotation (looking onto the shaft) - DIRECTION	RESET of the position
0 (input = NC or GND) Up counting	0 (input = NC or GND) Position
1 (input = +Ub or $\geq 4,5V$) Down counting	1 (input = +Ub or $\geq 4,5V$) Reset on down level (100ms)

ORDERING REFERENCE Contact the factory for special versions, ex: electronics, special flanges, connections...)

MHK5	S1	01	G	12	13	B	15	0	PRL
Absolute multi turn encoder	RESET Fonction	Version	Code : Gray	Number of turns 2 ¹² (4 096)	Resolution (pos./turn) 2 ¹³ (8 192)	Blind shaft	Shat diameter : 15mm	Without mechanical option	Radial M23 connector

Ordering code : MHK510-SSIR-001 = MHK5 S1 01 G 12 13 B 15 0 PRL