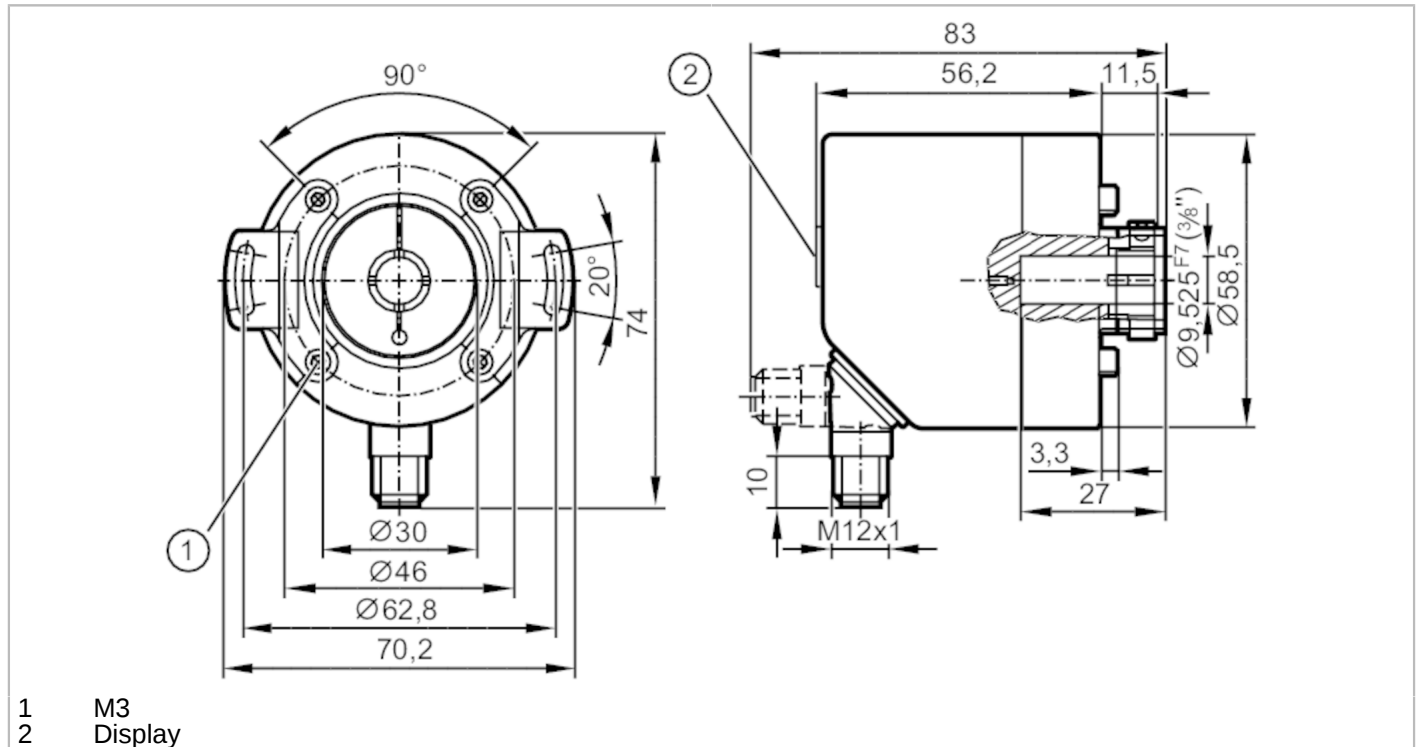


# ROP523



## Hollow shaft encoder open to one side

INCREMENTAL ENCODER PERFORMANCE LINE



Application	
Function principle	incremental
Detection system	magnetic
Application	encoder; Speed monitor; counter
Electrical data	
Operating voltage [V]	4.75...30 DC
Current consumption [mA]	< 350
Protection class	III
Reverse polarity protection	yes
Max. revolution electrical [U/min]	12000
Outputs	
Switching frequency [kHz]	1000
Factory setting	Output function: HTL (50 mA)
Electrical design	HTL/TTL
Short-circuit protection	yes
Phase difference A und B [°]	90
Measuring/setting range	
Resolution	1...10000; (parameterisable; Factory setting: 1024) resolution
Speed monitor	
Set point SP [U/min]	-9994...9999
Set point SP [Hz]	-166.6...166.7
Reset point rP [U/min]	-9999...9994
Reset point rP [Hz]	-166.7...166.6

# ROP523



## Hollow shaft encoder open to one side

INCREMENTAL ENCODER PERFORMANCE LINE

counter	
Preset point	1...9999
<b>Accuracy / deviations</b>	
Accuracy [°]	0.1
<b>Software / programming</b>	
Parameter setting options	encoder; Resolution; direction of rotation; HTL; TTL; Speed monitor; Resolution
<b>Interfaces</b>	
Communication interface	IO-Link
Transmission type	COM 2
IO-Link revision	1.1
SIO mode	yes
Min. process cycle time [ms]	2.3
<b>Operating conditions</b>	
Ambient temperature [°C]	-40...85
Storage temperature [°C]	-40...85
Max. relative air humidity [%]	95; (condensation not permissible)
Protection	IP 65; (on the housing: IP 67; on the shaft: IP 65)
<b>Tests / approvals</b>	
Shock resistance	100 g
Vibration resistance	20 g
MTTF [years]	218
<b>Mechanical data</b>	
Weight [g]	486
Dimensions [mm]	Ø 58.5 / L = 69
Materials	flange: aluminium; housing: stainless steel (1.4521 / 444); plug: stainless steel (1.4401 / 316); display window: PEI
Max. revolution, mechanical [U/min]	12000
Max. starting torque [Nm]	2
Reference temperature torque [°C]	20
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	9.525
Shaft material	stainless steel
Installation depth of shaft [mm]	27
Max. axial shaft misalignment [mm]	0,5
<b>Displays / operating elements</b>	
Display	10-segment display, red/ green 4-digit parameterisable
	2 LED, yellow
	5 LED, green
<b>Accessories</b>	
Accessories (supplied)	Stator coupling: 2



## Hollow shaft encoder open to one side

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### Electrical connection

#### IO-Link

1	L+
2	not to be used
3	L-
4	IO-Link
5	not to be used
6	not to be used
7	not to be used
8	not to be used
Screen	plug

#### encoder

1	UB
2	A
3	GND
4	Z/0-Pulse (90 deg)
5	B
6	A-
7	B-
8	Z-
Screen	plug

#### Preset counter

1	UB
2	IN1
3	GND
4	not to be used
5	OUT1
6	not to be used
7	not to be used
8	not to be used
Screen	plug

# ROP523



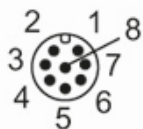
## Hollow shaft encoder open to one side

INCREMENTAL ENCODER PERFORMANCE LINE

### Speed monitor

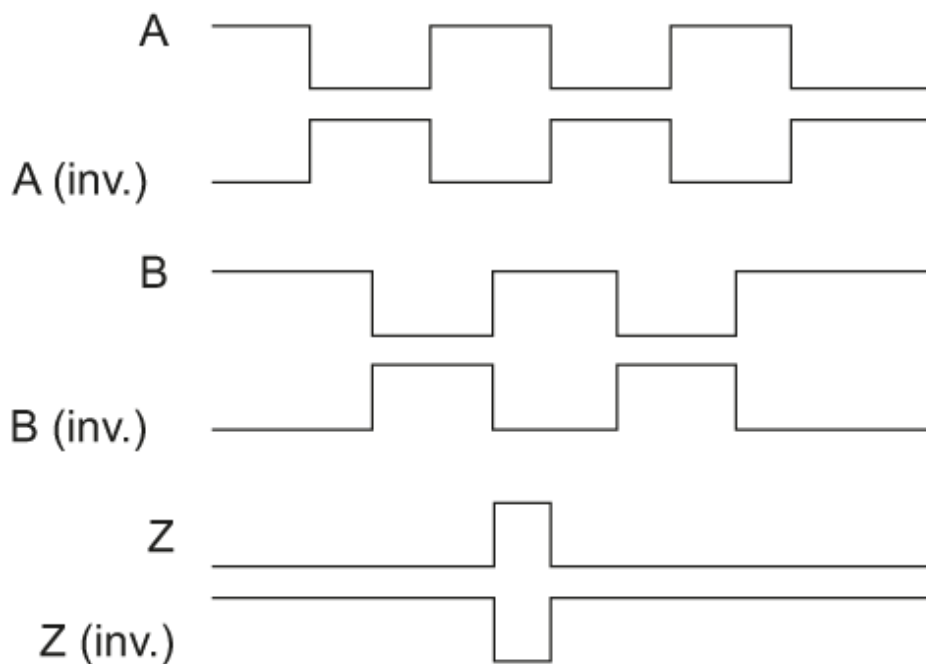
1	UB
2	OUT2
3	GND
4	not to be used
5	OUT1
6	OUT2-
7	OUT1-
8	not to be used
Screen	plug

Connector: 1 x M12, radial, can also be used axially; Moulded body: stainless steel (1.4401 / 316); Maximum cable length: 100 m



### Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)