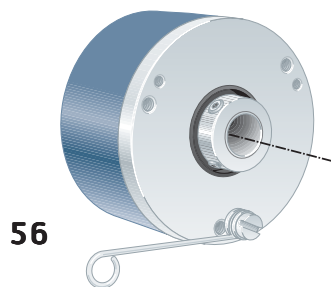
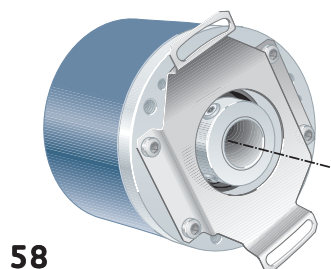


507 — Ruggedized Hollow shaft encoder, Absolute

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56



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Short description:

- >> 13 bit Parallel output
- >> Binary or Gray coded
- >> 5 Vdc or 9...36 Vdc
- >> IP 67 at housing, IP 66 at shaft inlet
- >> Robust housing for harsh environment
- >> Shock and vibration protected

Suitable applications:

- >> Standard to demanding industrial applications
- >> Positioning applications
- >> Printing machines
- >> Packaging machines

General information

Encoder data	
Type	RHA 507
Operating temperature	-40°C .. +80°C
Storage temperature	-30°C .. +80°C
Ingress protection class	IP-67 according to IEC 60529
At shaft inlet	IP-66 according to IEC 60529
Vibration (55 to 2000Hz)	< 300 m/s ² according to IEC 60068-2-6 ⁽¹⁾
Shock (6ms)	< 2000 m/s ² according to IEC 60068-2-27
Cover material	Aluminium
Cover surface treatment	Coated and cromated or anodized
Weight	Approx. 300g
Accuracy and resolution	
Resolution	≤ 13 Bit, 8192 positions per revolution
Accuracy	± 1 LSB

Flange option

Flange type	56, hollow-shaft	58, hollow-shaft
Type	Standard	Standard
Diameter	ø58mm	ø58mm
Flange material	Aluminium	Aluminium
Surface treatment	Anodized	Anodized
Torque support	Torque arm	Stator coupling

Shaft option

Hollow-shaft type	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 14 mm
Axial shaft load	10 N	10 N	10 N	10 N
Radial shaft load	20 N	20 N	20 N	20 N
Mech. permissible speed	6000 rpm (12 000)	6000 rpm (12 000)	6000 rpm (12 000)	6000 rpm (12 000)
Shaft material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Moment of inertia	1,9 x 10 ⁻⁶ kgm ²	1,9 x 10 ⁻⁶ kgm ²	2,0 x 10 ⁻⁶ kgm ²	2,0 x 10 ⁻⁶ kgm ²

⁽¹⁾<150m/s² on encoders with connectors

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Connection option

Connector type	Cable	19 pin PT
Function	Colour	PIN
Bit 1 (LSB)	Brown/Yellow	R
Bit 2	Brown/Green	P
Bit 3	White/Green	N
Bit 4	Blue/Red	M
Bit 5	Grey/Pink	L
Bit 6	Violet	K
Bit 7	Black	J
Bit 8	Pink	H
Bit 9	Grey	G
Bit 10	Yellow	D
Bit 11	Green	C
Bit 12	Brown	B
Bit 13 (MSB)	White	A
Code sequence	White/Yellow	V
0V	Blue	F
+EV	Red	E
Housing	Shield	Chassis
Connecting direction		
Axial	Yes	Yes
Radial	Yes	No

Note: If 12 bit resolution is required the LSB shall not be connected

Electrical option

Power supply	5Vdc ± 10%	9-36Vdc
Polarity protected	No	Yes
Output interface	Parallel	
Short circuit protected	Yes	
Current consumption	100mA	50mA @24Vdc
Max current consumpt.	150mA	110mA
Output load	±20mA	±20mA
Output frequency	0...200 kHz	
U _{high} at 10mA load	> 3.0V	> EV-3.0V
U _{low} at 10mA load	< 0.4V	< 0.5V
Cable length (max)	10m	100m
Code type	Binary or Gray	
Position update freq.	16MHz	
Start up delay	25ms	
Input		
Code sequence	If not connected or connected to 0V the position will increase when the shaft is turned clockwise. If connected to a high logic level the position will increase while turned counter clockwise.	
U _{high}	> 2V	> EV x 0.6
U _{low}	< 0.8V	< EV x 0.25
Delay	75µs	

Accessories

Accessories		Part number
Mating connector	19 pin PT	00201010 ⁽¹⁾
Torque support	M6	01209143 ⁽²⁾
Torque arm	M6	01208014 ⁽³⁾

⁽¹⁾ Also available with assembled cable.

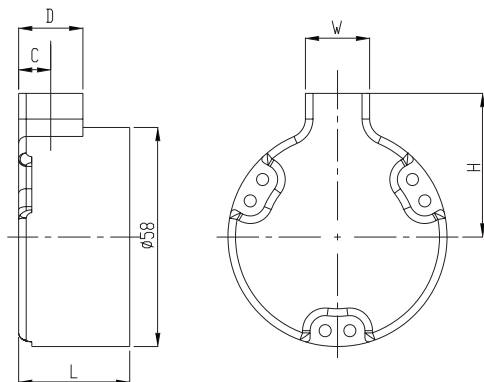
⁽²⁾ Only for 56 flange.

⁽³⁾ Length 70-1000mm available, specify when ordering.

For additional accessories like assembled cables and torque arms please advise separate datasheets for accessories.



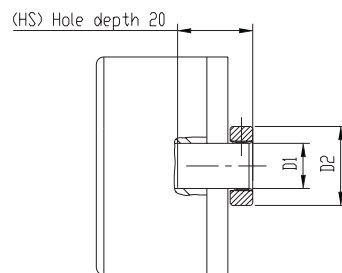
Dimensions



Connector	Orientation	L	H	W	D	C
Cable	Radial	29,4	34	17	17	8,5
	Axial	38,9				
19p PT	Radial	48,4	31,5	30	30	15
	Axial	38,9				

Note: For complete encoder dimension please add connector and flange dimensions.

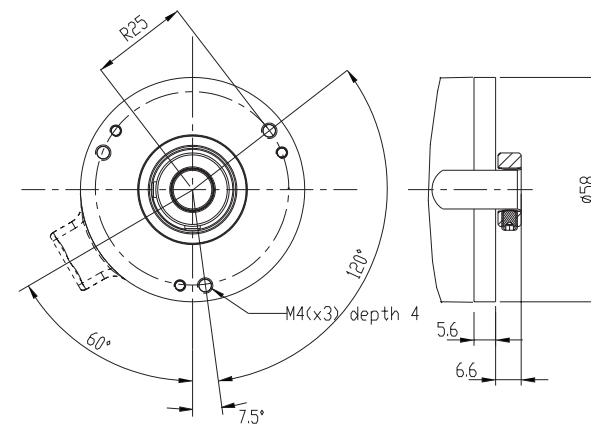
Shafts



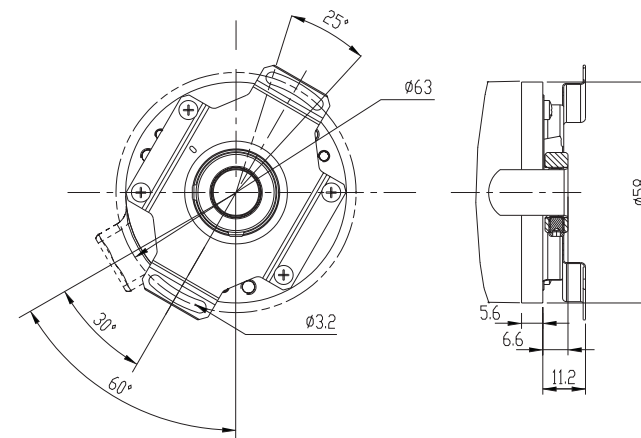
	D1	D2
Ø8mm	Ø8 G7	Ø19
Ø10mm	Ø10 G7	Ø19
Ø12mm	Ø12 G7	Ø21
Ø14mm	Ø14 G7	Ø23

Flanges

56



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507

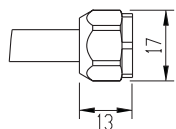
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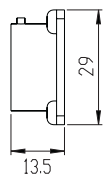


Connectors

Cable
16x0,25 shielded



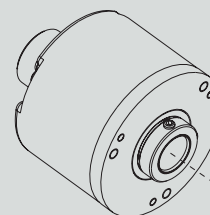
19pin PT



Various combinations/examples

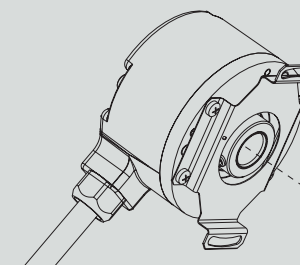
RHA 507 56

12 mm , axial PT



RHA 507 58

10 mm , radial cable



Ordering information Tick your choice

Type	RHA 507				
Flange	56, HS	58, HS			
Shaft	Ø8mm	Ø10mm	Ø12mm	Ø14mm	
Electronics	Supply	5 Vdc	9-36Vdc		
	Output	PLG, Gray	PLB, Binary		
Connection	Cable ⁽¹⁾		19 pin PT ⁽²⁾		
Connecting direction	Axial ⁽²⁾ /Radial		Axial		
Resolution	13 bit				

⁽¹⁾ Note: Please specify cable length when ordering

⁽²⁾ Note: Not available on flange 52, LL68

Ordering example: RHA 507 56 Ø10 9-36Vdc PLB Cable Radial 13bit

Assembly drawing is available upon request from Leine & Linde AB

LEINE LINDE

ISO 9001/ISO 14001 certified

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www.leinelinde.com

08-04-09 / Specifications can be changed without prior notice.