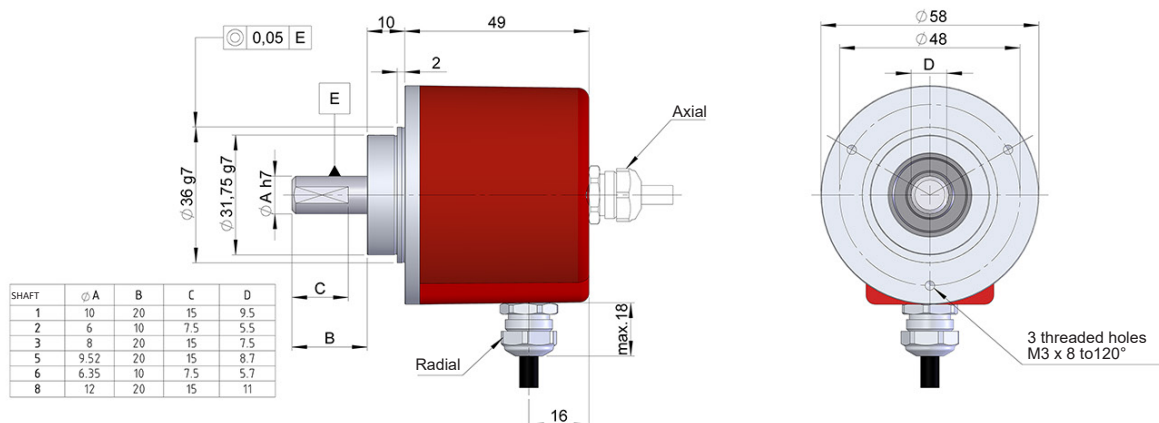




HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

- Resolution up to 50.000 pulses per turn
- External diameter 58 mm
- Shaft from Ø 6 to 12 mm
- Protection class IP67 according to DIN EN 60529
- Highly flexible flanges and different configurations
- Executions mechanical, electronic and special optics forms available on request
- Connection by cable (other cable length available) or industrial connector



Drawing connection type 3/8, without flange

Reference example: 10-11639-1024

Serie	Solid shaft	Flange	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
10/10A -					 -	     	   
10. IP 65	1. Ø 10x20 mm	1. None	1. A	1. Radial 4p	0. 11...30 VDC / NPN Open collector 11...30 VDC	(*)	AT00. -40°C
10A. IP 67	2. Ø 6x10 mm	2. 90.1002	2. A+B	3. Radial cable	6. 11...30 VDC / RS422		
(**)	3. Ø 8x20 mm	3. 90.1003	3. A+B+0	4. Radial Mil 7p	5. 11...30 VDC / RS422		
	5. Ø 9.52x20 mm	4. 90.1004	5. A $\tilde{A}$ +B $\tilde{B}$	5. Radial M23 12p	5. 5 VDC (compatible TTL)		
	6. Ø 6.35x10 mm	5. 90.1005	6. A $\tilde{A}$ +B $\tilde{B}$ +0 $\tilde{0}$	6. Axial 4p	7. 5 VDC / RS422 5 VDC		
	8. Ø 12x20 mm	7. 90.1006	9. A+B+0	8. Axial cable	(compatible TTL)		
		(***)		9. Axial Mil 7p	9. 11...30 VDC / Line driver		
				0. Axial M23 12p	differential Push-Pull		
				M. Radial Mil 10p	11...30 VDC		
				N. Axial Mil 10p			
				L. Radial M12 8p			
				K. Axial M12 8p			

Order your reference Sheet

file 3

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.....
service available in 24 h

(***) Flange mounting included in delivery of the encoder.

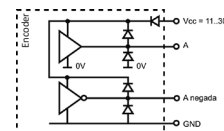
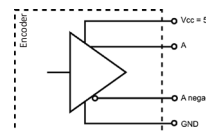
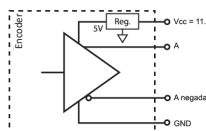
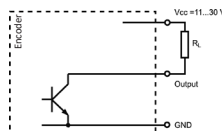
SERIE 10

HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

MECHANICAL SPECIFICATIONS

Materials	Housing: Aluminium Flange: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 ¹⁰ rev.
Shaft diameter	6, 6.35, 8, 9.52, 10 or 12 mm
Maximum number of revolutions permitted mechanically	≤ 6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP65 - Standard IP67 - Option 10A
Rotor inertia moment	30 gcm ²
Starting torque at 20°C (68°F)	≤ 0,02 Nm - Standard ≤ 0,03 Nm - Option 10A
Maximum load permitted on axial shaft	≤ 40 N
Maximum load permitted on radial shaft	≤ 80 N
Weight aprox.	0,5 Kg
Operating temperature range	-20°C to +80°C - Standard -40°C to +80°C - Special Customer AT00
Vibration according to DIN EN 60068-2-6	100 m/s ² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s ² (6ms)
Maximum pulses per turn	≤ 50.000
Axial or radial connection	2 meters cable or industrial connector (different models available, other cable lengths available on order) Female connector not included

OUTPUT SIGNALS



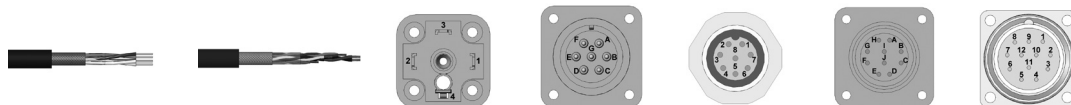
OUTPUT CIRCUIT	NPN Open Collector	RS422 (TTL compatible)	RS422 (TTL compatible)	Push-Pull Differential
Reference code	0	6	7	9
Power supply	11...30 VDC	11...30 VDC	5 VDC ±10%	11...30 VDC
Output voltage	11...30 VDC	5 VDC	5 VDC	11...30 VDC
Consumption	40 mA	Typical: 80 mA Max: 160 mA	Typical: 70 mA Max: 150 mA	Typical: 45 mA Max: 150 mA
Max. load capability / channel	40 mA	±20 mA	±20 mA	±30 mA
Length of cable allowed	50 m (24 VDC)	1200 m	1200 m	100 m
"Low" signal level	VOL < 0.4 VDC (24 VDC)	VOL < 0.5 VDC	VOL < 0.5 VDC	VOL < 2.5 VDC
"High" signal level	VOH > 22 VDC (24 VDC)	VOH > 2.5 VDC	VOH > 2.5 VDC	VOH > VCC - 3 VDC
Frequency	100 kHz	300 kHz	300 kHz	200 kHz
Short circuit protection	Not permanent	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	Not permanent	Yes

Channel B leads (90° electric) channel A, view from the shaft, shaft rotating clockwise

SERIE 10

HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

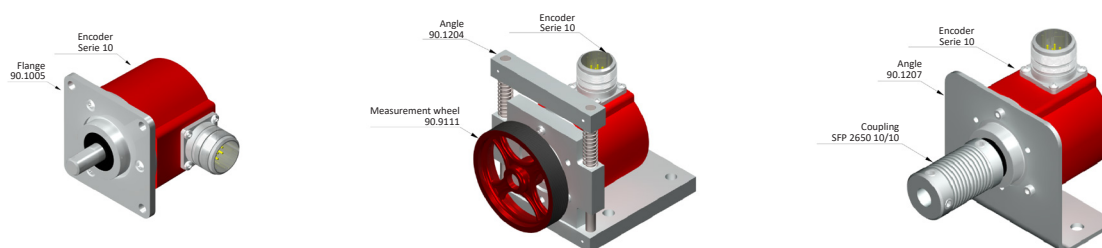
CONNECTION



	Cable 2x2x0,14+1x0,14 95.0008002	Cable 3x2x0,14+2x0,34 95.0008003 (*)	Connector DIN 43650 4p	Connector Mil 7p CW	Connector M12 8p CCW	Connector Mil 10p CW	Connector M23 12p CW
GND	Yellow	Black	1	A	1	A	1
VCC	White	Red	2	B	2	B	2
A	Brown	Yellow	3	C	3	C	3
B	Green	Green	4	D	4	D	4
$\tilde{A}$		Brown		E	5	E	5
$\tilde{B}$		Blue		F	6	F	6
0 (reference)	Grey	Grey		G	7	G	7
$\tilde{0}$	Grey	Orange		G	8	H	8

(*) Cable 3x2x0,14+2x0,34 only for encoders with inverted signals.

ACCESSORIES EXAMPLES

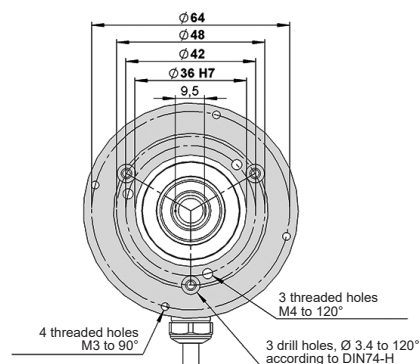
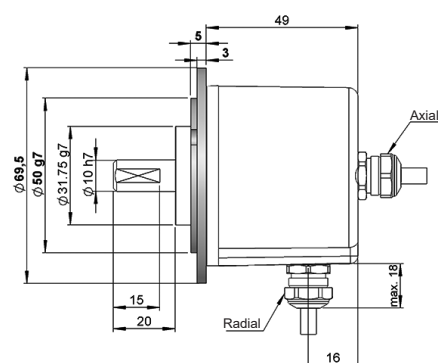


All the accessories available in the section "MOUNTING ACCESSORIES".

FLANGE DIMENSIONS

Flange mounting included

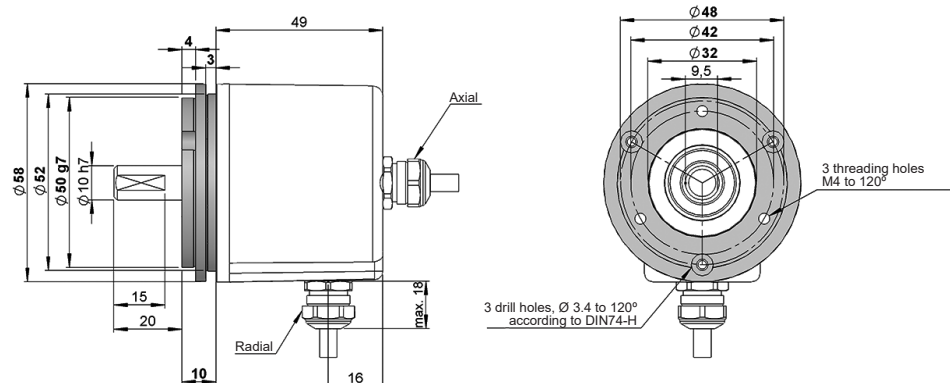
Flange 2
90.1002



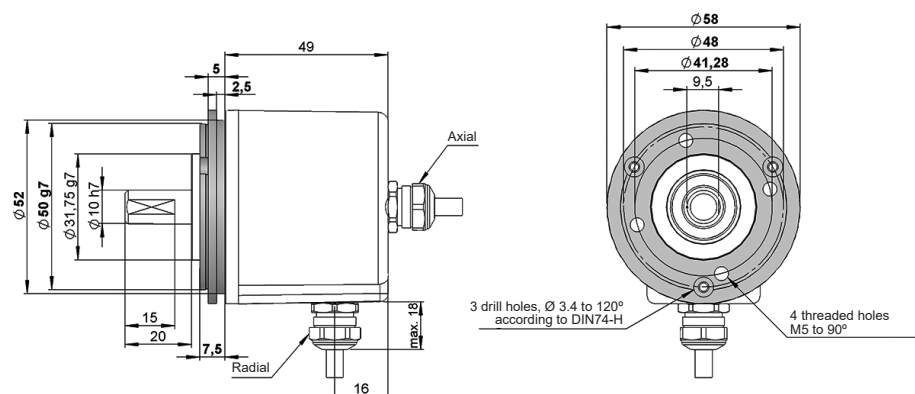
SERIE 10

HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

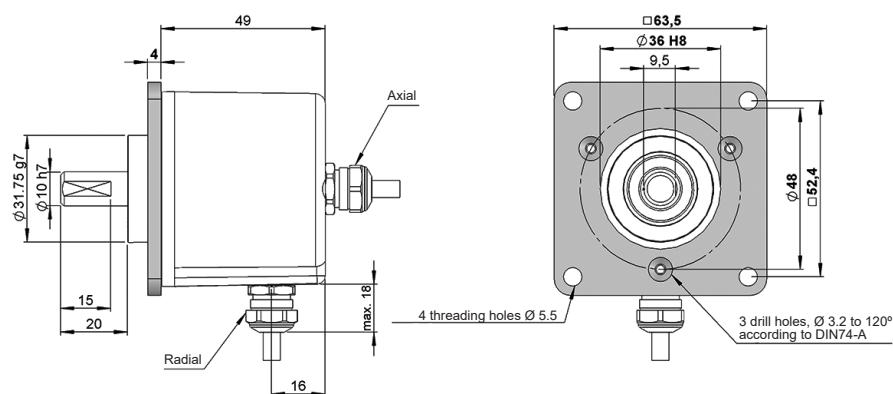
Flange 3
90.1003



Flange 4
90.1004



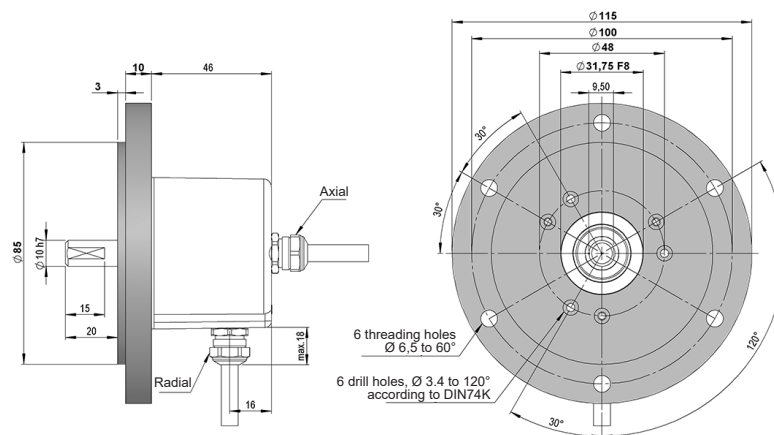
Flange 5
90.1005



SERIE 10

HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

Flange 7
90.1006

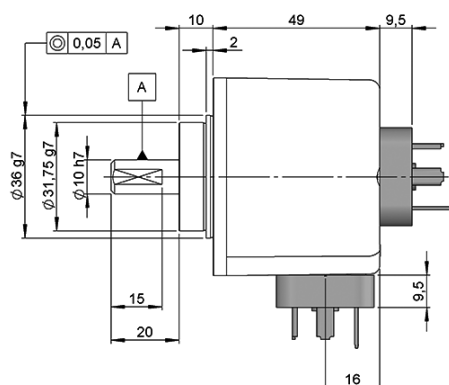


CONNECTION DIMENSIONS

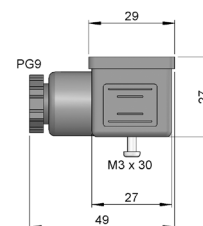
Female connector not included

Connection 1

Radial
DIN 43650 4p
male panel

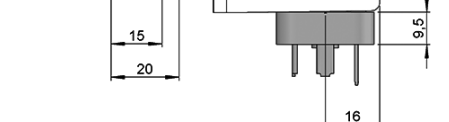


Female connector
95.0007011

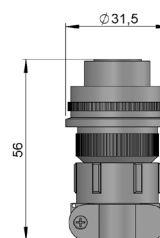


Connection 6

Axial
DIN 43650 4p
male panel

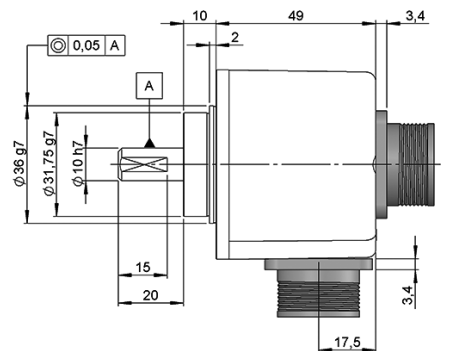


Female connector
90.9507H



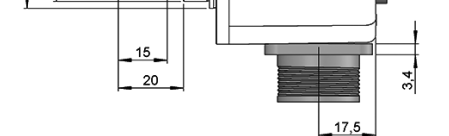
Connection 4

Radial
Mil 7p
male panel
clockwise



Connection 9

Axial
Mil 7p
male panel
clockwise

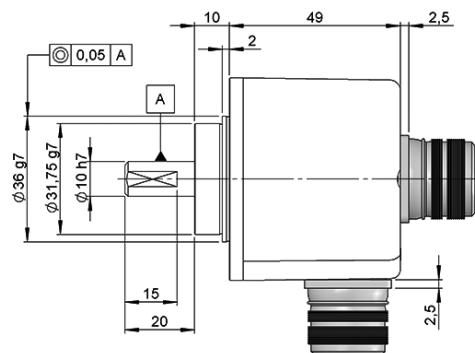


SERIE 10

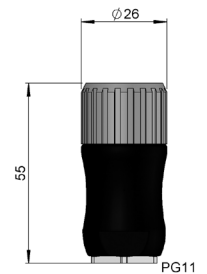
HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

Connection 5

Radial
M23 12p
male panel
clockwise



Female connector
95.0007131

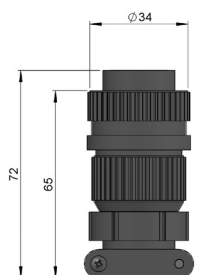


Connection 0

Axial
M23 12p
male panel
clockwise

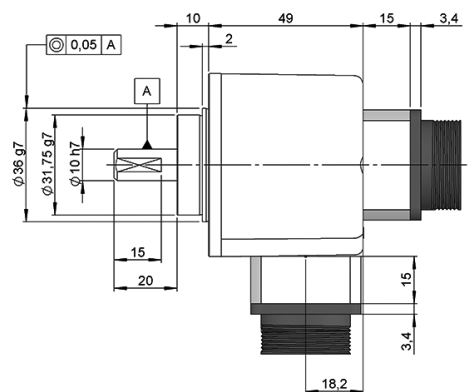


Female connector
90.9510H

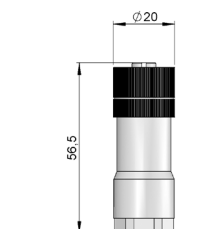


Connection M

Radial
Mil 10p
male panel
clockwise

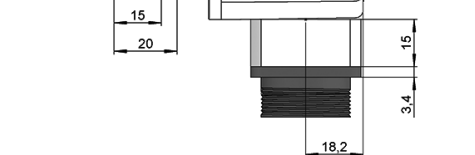


Female connector
95.0007152



Connection N

Axial
Mil 10p
male panel
clockwise

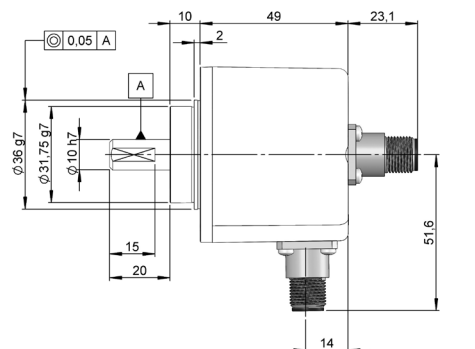


Female connector
95.0007152



Connection L

Radial
M12 8p
male panel
counter clockwise

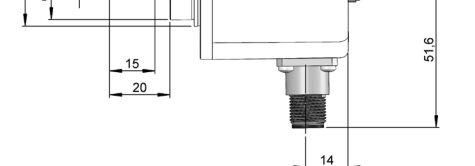


Female connector
95.0007152



Connection K

Axial
M12 8p
male panel
counter clockwise



Female connector
95.0007152

