

Incremental Encoder BDG

BDG



**Incremental encoder
series 6360/6310**

- scale 58 mm
- shaft 6...10 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

Ø 6...10 mm, stainless steel
axial 10 N, radial 20 N
max. 10.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft (optional IP67)
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

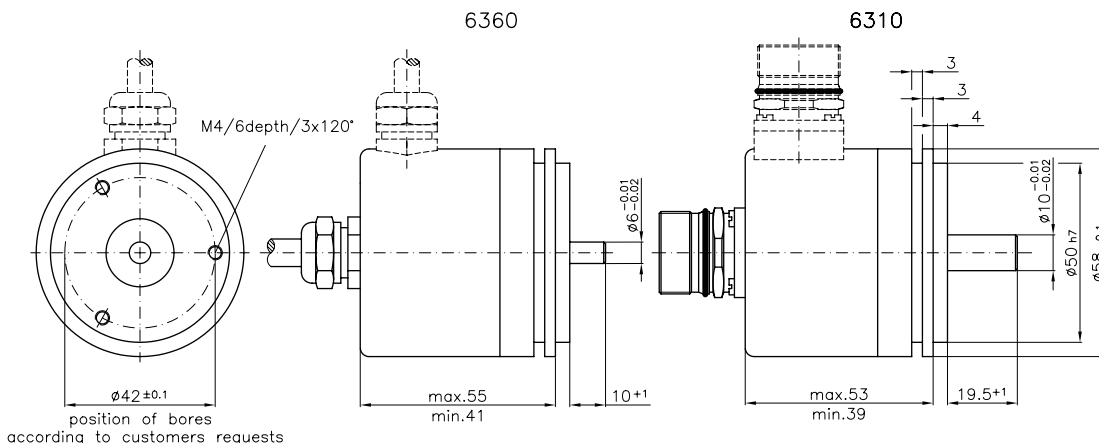
Signals
Light source
Operating voltage

Current consumption without load
Scan frequency

Output level

Current output
Output signals

square wave and sinusoidal
LED
5 Volt ± 5%,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series 6110

- scale 58 mm
- shaft 10 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

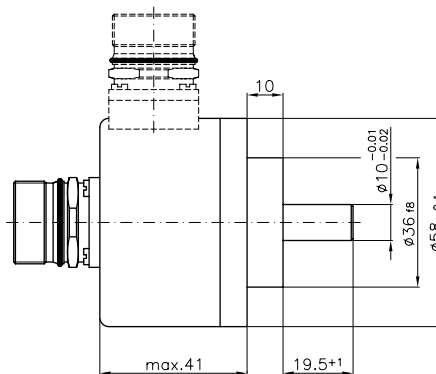
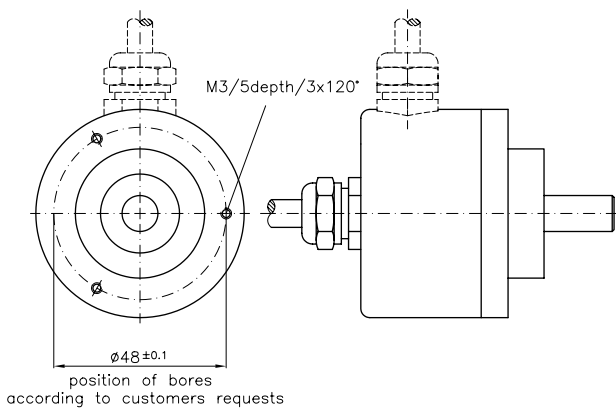
Shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 10 mm, stainless steel
 axial 10 N, radial 20 N
 max. 10.000 prm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 64 on shaft (optional IP67)
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency
 Output level
 Current output
 Output signals

square wave and sinusoidal
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 100 mA
 300 kHz with square wave 5 Volt
 300 kHz with square wave 10...30 Volt
 5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof
 20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion



Solid shaft

BDG 6360/6310

BDG 6110

BDG 8360/8310

BDG A401/402

BDG 5909/6009

BDG 6460/A423

Hollow shaft

BDG A501/502

BDG 8716...28

BDG 91/9206...12

BDG 9227...55

Angle encoder

BDG A1310

BDG A1503

BDG A1513

BDG A1526

Special encoder

Electronic Handwheel

BDG PRO 100

BDG PRO 200

BDG 8917

BDG A487

BDG A492

**Incremental encoder
series 8360/8310**

- scale 80 mm
- shaft 6...10 mm
- each pulse rate up to 10000 ppr



PULSES

Two separate outputs with different pulses

Output 1 up to 10000 ppr
Output 2 up to 6500 ppr

MECHANICAL DATA

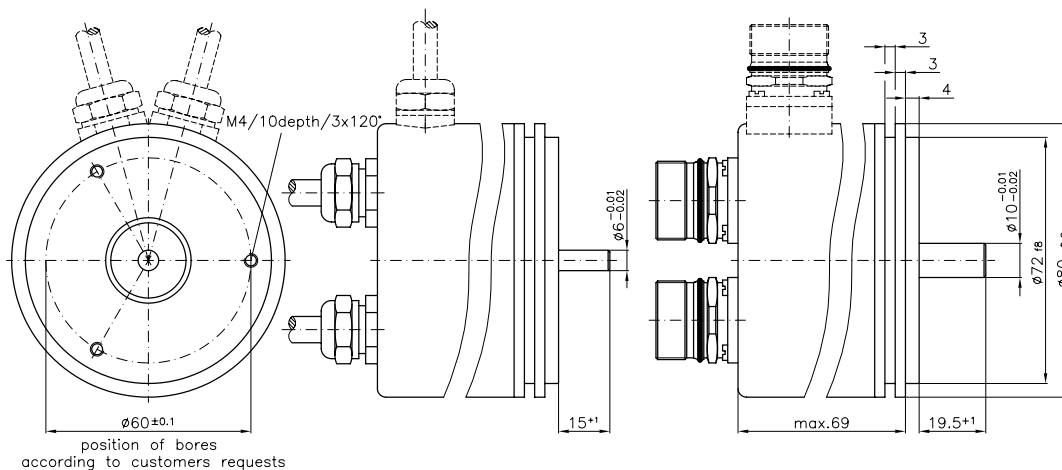
Shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

Ø 6...10 mm, stainless steel
axial 10 N, radial 20 N
max. 10.000 rpm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft (optional IP67)
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt ± 5%,
10...30 Volt
max 120 mA per system
300 kHz with square wave 5 Volt
160 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series A401/402

- scale 24...26 mm
- shaft 3...6 mm
- each pulse rate up to 2500 ppr



Solid shaft

BDG 6360/6310
BDG 6110
BDG 8360/8310
BDG A401/402
BDG 5909/6009
BDG 6460/A423

Hollow shaft

BDG A501/502
BDG 8716...28
BDG 91/9206...12
BDG 9227...55

Angle encoder

BDG A1310
BDG A1503
BDG A1513
BDG A1526

Special encoder

Electronic Handwheel
BDG PRO 100
BDG PRO 200
BDG 8917
BDG A487
BDG A492

PULSES

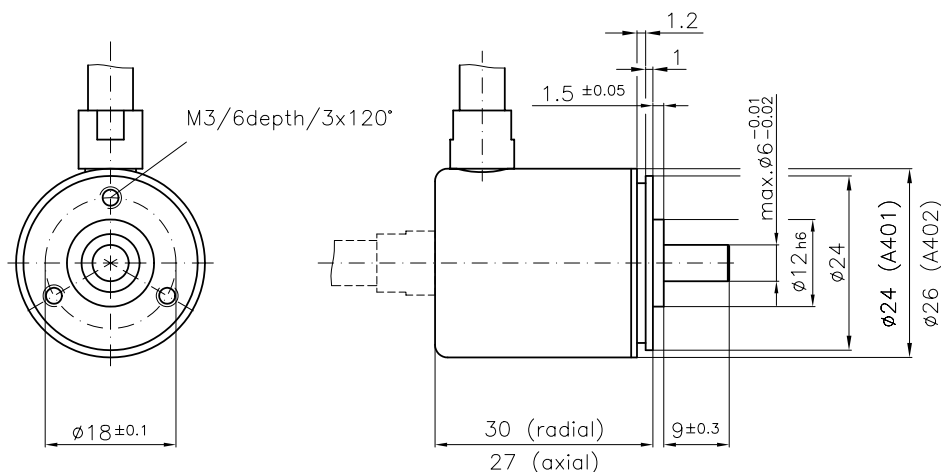
Each pulse rate up to 2500 pulses per revolution

MECHANICAL DATA

Shaft	Ø 3...6 mm, stainless steel
Shaft load	axial 10 N, radial 20 N
Rotating speed	max. 10.000 prm
Working temperature	0° C...+80° C
Vibration	10 g (20...2000 Hz)
Shock	100 g (11 ms)
Ingress protection	IP 64 on shaft
89/366/EWG EMV-rules	EN 50081 part 2, EN 50082 part 2

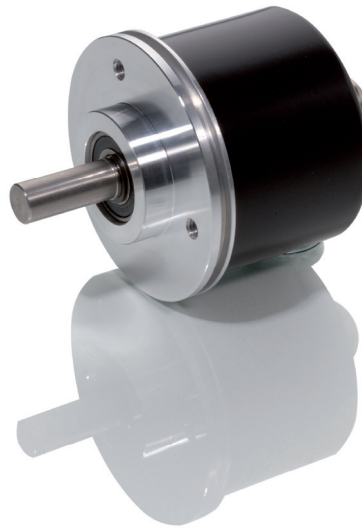
ELECTRICAL DATA

Signals	square wave
Light source	LED
Operating voltage	5 Volt ± 5%, 10...30 Volt
Current consumption without load	max 60 mA
Scan frequency	300 kHz with square wave 5 Volt 300 kHz with square wave 10...30 Volt
Output level	5 Volt Line-Driver 10...30 Volt push-pull short-circuit proof
Current output	20 mA
Output signals	2 channels A and B phase-shifted 90° electrically zero-pulse 1 pulse per revolution length 90°, 180° oder 360° electrically all signals with inversion



**Incremental encoder
series 5909/6009**

- scale 63,5 mm
- shaft 9,52 and 10 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

Ø 9,52 and 10 mm, stainless steel
axial 10 N, radial 20 N
max. 10.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft (optional IP67)
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

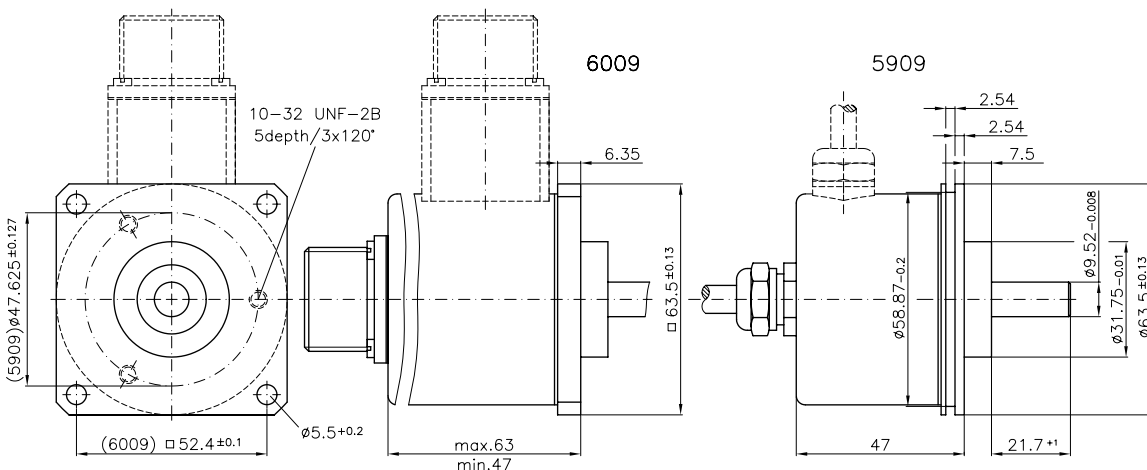
Signals
Light source
Operating voltage

Current consumption without load
Scan frequency

Output level

Current output
Output signals

square wave and sinusoidal
LED
5 Volt ± 5%,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series 6460/A423

- scale 35...40 mm
- shaft 4...6 mm
- each pulse rate up to 3600 ppr



PULSES

Each pulse rate up to 3600 pulses per revolution

MECHANICAL DATA

Shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 4...6 mm, stainless steel
 axial 10 N, radial 20 N
 max. 10.000 prm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 64 on shaft
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency
 Output level
 Current output
 Output signals

square wave
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 150 mA
 300 kHz with square wave 5 Volt
 160 kHz with square wave 10...30 Volt
 5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof
 20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion

Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

- BDG A501/502
- BDG 8716...28
- BDG 91/9206...12
- BDG 9227...55

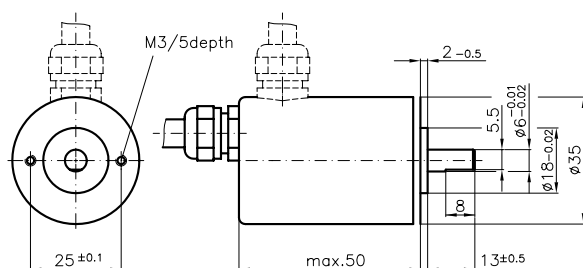
Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

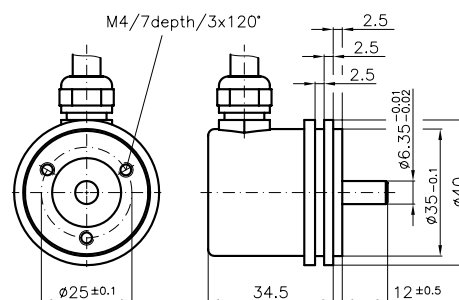
Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492

6460



A423



**Incremental encoder
series A501/502**

- scale 24...26 mm
- hollow shaft 3...6 mm
- each pulse rate up to 2500 ppr



PULSES

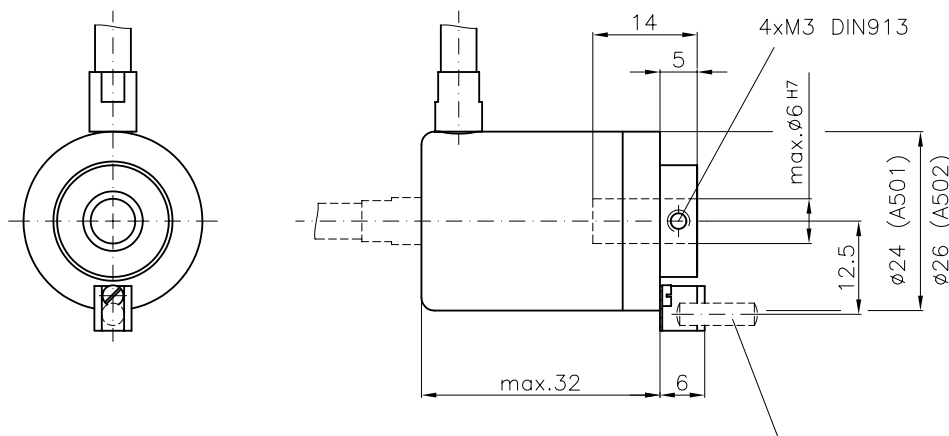
Each pulse rate up to 2500 pulses per revolution

MECHANICAL DATA

Hollow shaft	Ø 3...6 mm, stainless steel
Shaft load	axial 10 N, radial 20 N
Rotating speed	max. 10.000 prm
Working temperature	0° C...+80° C
Vibration	10 g (20...2000 Hz)
Shock	100 g (11 ms)
Ingress protection	IP 64 on shaft
89/366/EWG EMV-rules	EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals	square wave
Light source	LED
Operating voltage	5 Volt ± 5%, 10...30 Volt
Current consumption without load	max 60 mA
Scan frequency	300 kHz with square wave 5 Volt 300 kHz with square wave 10...30 Volt
Output level	5 Volt Line-Driver 10...30 Volt push-pull short-circuit proof
Current output	20 mA
Output signals	2 channels A and B phase-shifted 90° electrically zero-pulse 1 pulse per revolution length 90°, 180° oder 360° electrically all signals with inversion



cylinder pin 3m6x10 included to avoid torque

Incremental encoder series 8716..28

- scale 76 mm
- hollow shaft 16...28 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Hollow shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 16...28 mm, stainless steel
 axial 10 N, radial 20 N
 max. 6.000 prm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 64 on shaft
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency

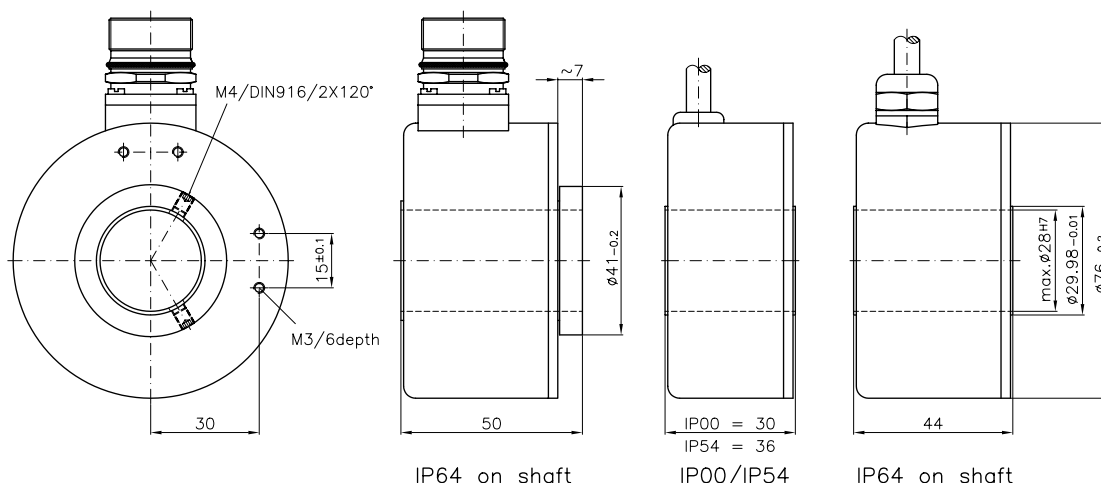
square wave and sinusoidal
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 150 mA
 300 kHz with square wave 5 Volt
 160 kHz with square wave 10...30 Volt

Output level

5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof

Current output
 Output signals

20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion



Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

- BDG A501/502
- BDG 8716..28
- BDG 91/9206...12
- BDG 9227...55

Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492

**Incremental encoder
series 91/9206..12**

- scale 58 mm
- hollow shaft 6...12 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

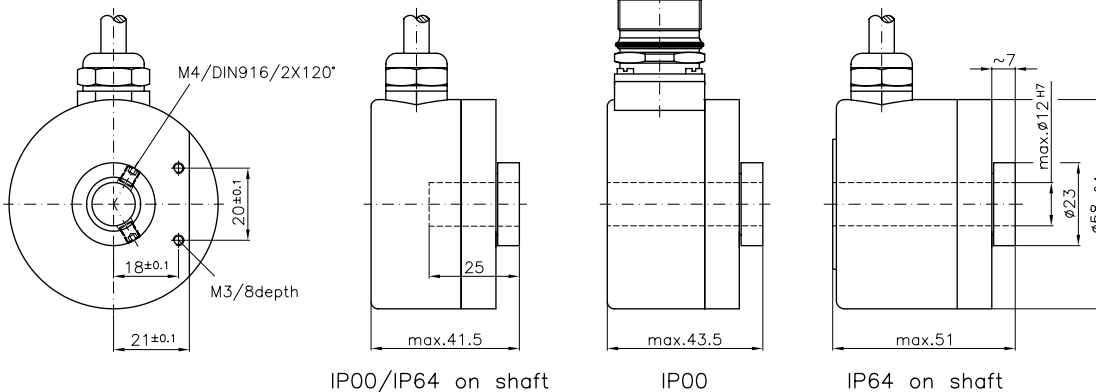
Hollow shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

Ø 6...12 mm, stainless steel
axial 10 N, radial 20 N
max. 10.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave and sinusoidal
LED
5 Volt ± 5%,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series 9227..55

- scale 120 mm
- hollow shaft 27...55 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

Favorite pulses 1024, 1250 2500, 3600 and 10000

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Hollow shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 27...55 mm, stainless steel
 axial 10 N, radial 20 N
 max. 4.000 rpm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 64 on shaft
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency

square wave and sinusoidal
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 150 mA
 300 kHz with square wave 5 Volt
 160 kHz with square wave 10...30 Volt

Output level

5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof

Current output
 Output signals

20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion

Sold shaft

BDG 6360/6310
 BDG 6110
 BDG 8360/8310
 BDG A401/402
 BDG 5909/6009
 BDG 6460/A423

Hollow shaft

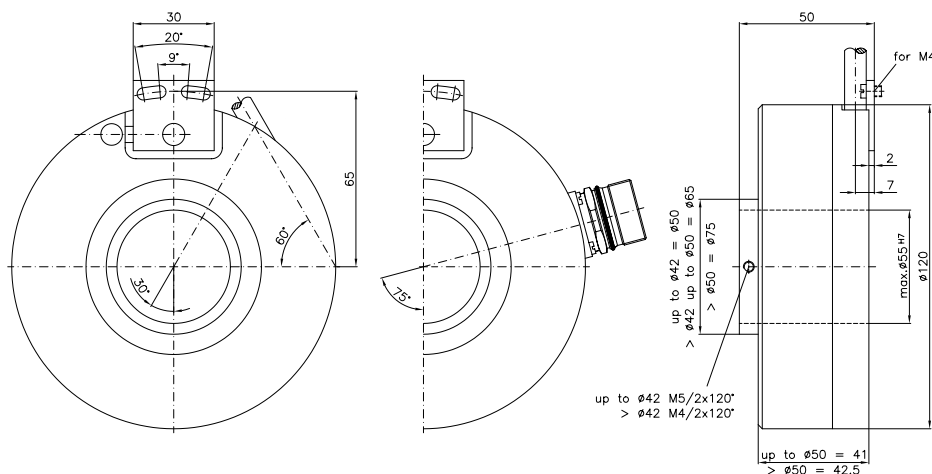
BDG A501/502
 BDG 8716...28
 BDG 91/9206...12
 BDG 9227...55

Angle encoder

BDG A1310
 BDG A1503
 BDG A1513
 BDG A1526

Special encoder

Electronic Handwheel-
 BDG PRO 100
 BDG PRO 200
 BDG 8917
 BDG A487
 BDG A492



**Incremental encoder
series A1310**

- scale 92 mm
- shaft 10 mm
- 9000, 10000 und 18000 ppr



PULSES

9000 ppr with $\pm 7''$, 10000 ppr with $\pm 6''$ und 18000 ppr with $\pm 5''$ accuracy
Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

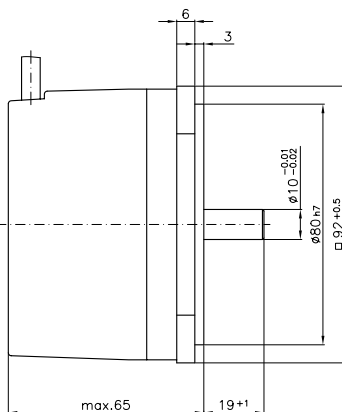
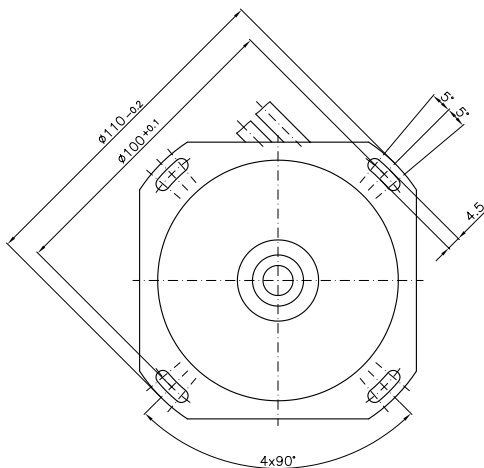
Shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

\varnothing 10 mm, stainless steel
axial 10 N, radial 20 N
max. 4.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt $\pm 5\%$,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series A1503

- scale 76 mm
- hollow shaft 16...28 mm
- 9000, 10000 und 18000 ppr



PULSES

9000 ppr with $\pm 7''$, 10000 ppr with $\pm 6''$ und 18000 ppr with $\pm 5''$ accuracy
Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Hollow shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

\varnothing 16...28 mm, stainless steel
axial 10 N, radial 20 N
max. 4.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt $\pm 5\%$,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion

Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

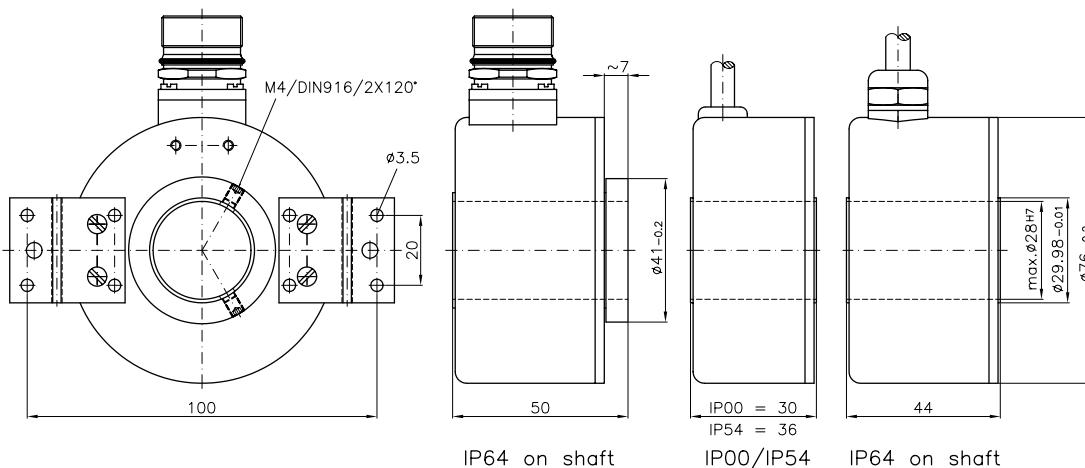
- BDG A501/502
- BDG 8716...28
- BDG 91/9206...12
- BDG 9227...55

Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

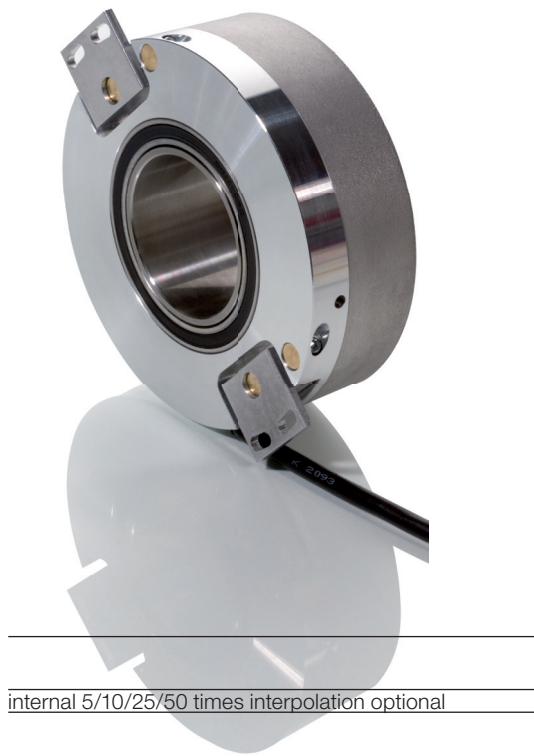
Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492



Incremental encoder series A1513

- scale 120 mm
- hollow shaft 27...55 mm
- 9000, 10000 und 18000 ppr



PULSES

9000 ppr with $\pm 7''$, 10000 ppr with $\pm 6''$ und 18000 ppr with $\pm 5''$ accuracy
Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Hollow shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

\varnothing 27...55 mm, stainless steel
axial 10 N, radial 20 N
max. 4.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

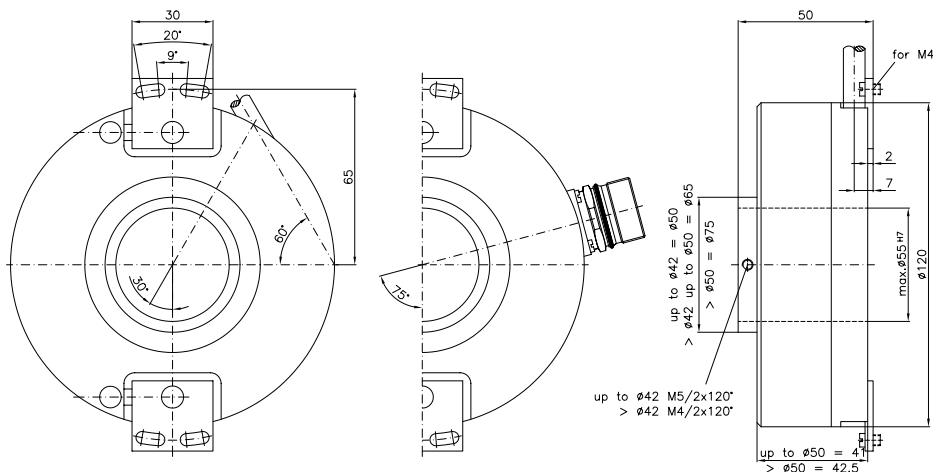
Signals
Light source
Operating voltage

Current consumption without load
Scan frequency

Output level

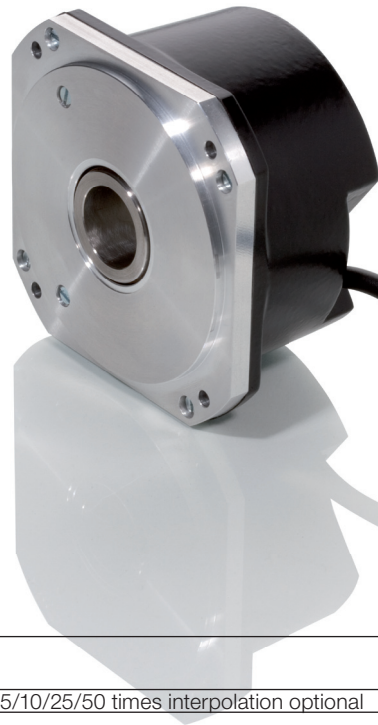
Current output
Output signals

square wave
LED
5 Volt $\pm 5\%$,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series A1526

- scale 92 mm
- hollow shaft 20...22 mm
- 9000, 10000 und 18000 ppr



PULSES

9000 ppr with $\pm 7''$, 10000 ppr with $\pm 6''$ und 18000 ppr with $\pm 5''$ accuracy
Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

Hollow shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

\varnothing 20 or 22 mm, stainless steel
axial 10 N, radial 20 N
max. 4.000 prm
 0° C...+80 $^{\circ}$ C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt $\pm 5\%$,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90 $^{\circ}$ electrically
zero-pulse 1 pulse per revolution
length 90 $^{\circ}$, 180 $^{\circ}$ oder 360 $^{\circ}$ electrically
all signals with inversion

Sold shaft

BDG 6360/6310
BDG 6110
BDG 8360/8310
BDG A401/402
BDG 5909/6009
BDG 6460/A423

Hollow shaft

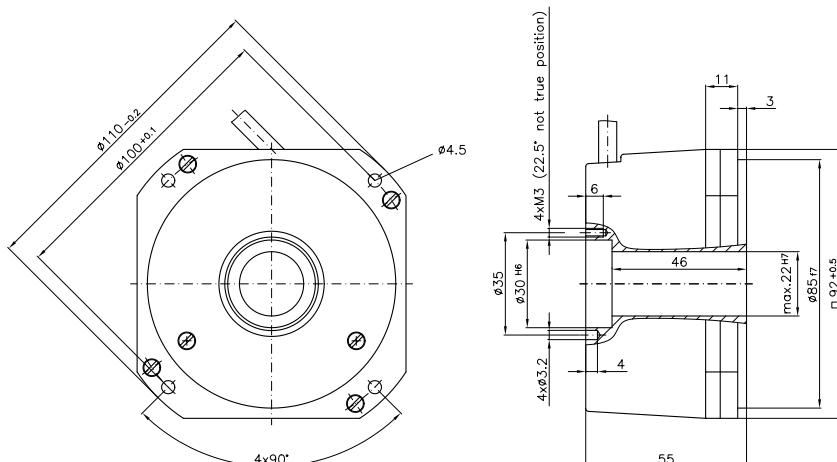
BDG A501/502
BDG 8716...28
BDG 91/9206...12
BDG 9227...55

Angle encoder

BDG A1310
BDG A1503
BDG A1513
BDG A1526

Special encoder

Electronic Handwheel
BDG PRO 100
BDG PRO 200
BDG 8917
BDG A487
BDG A492



**Incremental encoder
series electronic handwheel**

- scale 62 mm
- shaft 6...12 mm
- each pulse rate up to 10000 ppr
- magnetic detent



PULSES

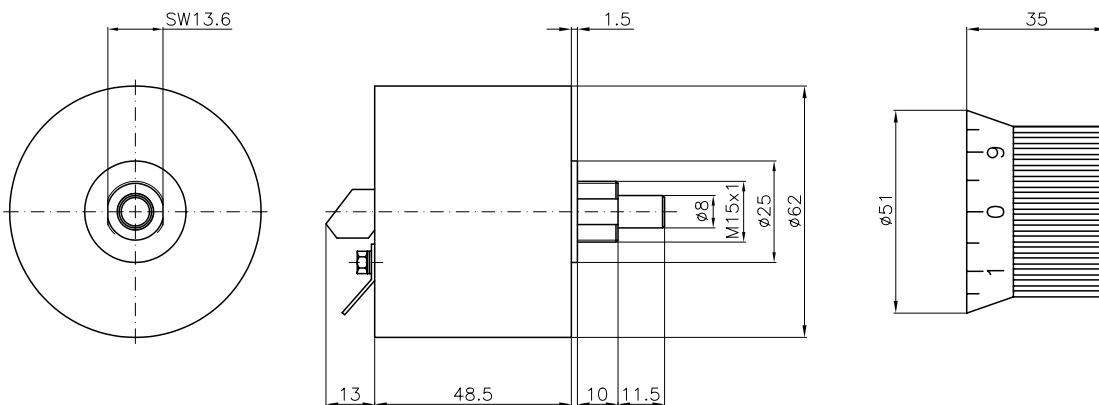
Each pulse rate up to 10000 pulses per revolution with a magnetic detent of 100 steps

MECHANICAL DATA

Shaft	Ø 6...12 mm, stainless steel
Shaft load	axial 10 N, radial 20 N
Rotating speed	max. 1.000 prm
Working temperature	0° C...+80° C
Vibration	10 g (20...2000 Hz)
Shock	100 g (11 ms)
Ingress protection	IP 64 on shaft
89/366/EWG EMV-rules	EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals	square wave
Light source	LED
Operating voltage	5 Volt ± 5%, 10...30 Volt
Current consumption without load	max 100 mA
Scan frequency	300 kHz with square wave 5 Volt 160 kHz with square wave 10...30 Volt
Output level	5 Volt Line-Driver 10...30 Volt push-pull short-circuit proof
Current output	20 mA
Output signals	2 channels A and B phase-shifted 90° electrically all signals with inversion



Incremental encoder series PRO100

- scale 58 mm
- shaft 6 mm
- 2...8192 ppr programmable



PULSES

Each pulse rate from 2 up to 2048 pulses per revolution + 4096 and 8192 ppr

MECHANICAL DATA

Shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 6 mm, stainless steel
 axial 10 N, radial 20 N
 max. 12.000 prm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 64 on shaft (optional IP67)
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency
 Output level
 Current output
 Output signals

square wave
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 100 mA
 300 kHz with square wave 5 Volt
 160 kHz with square wave 10...30 Volt
 5 Volt Line-Driver
 11...28 Volt push-pull short-circuit proof
 50 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion

Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

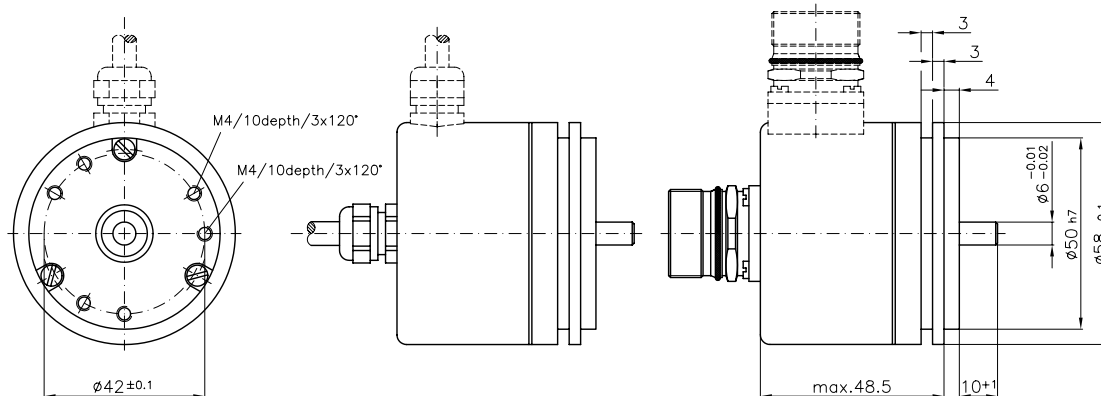
- BDG A501/502
- BDG 8716...28
- BDG 91/9206...12
- BDG 9227...55

Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492



**Incremental encoder
series PRO200**

- scale 58 mm
- shaft 10 mm
- 2...8192 ppr programmable



PULSES

Each pulse rate from 2 up to 2048 pulses per revolution
+ 4096 and 8192 ppr

MECHANICAL DATA

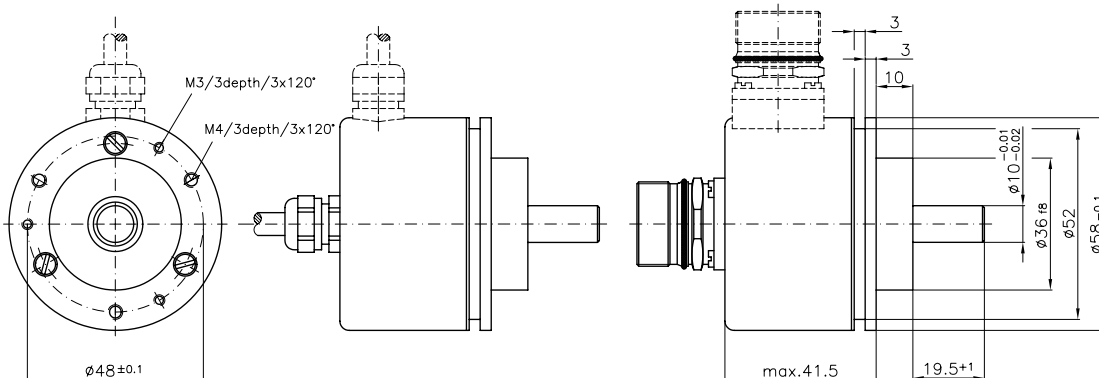
Shaft
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

Ø 10 mm, stainless steel
axial 10 N, radial 20 N
max. 12.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft (optional IP67)
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt ± 5%, 10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
160 kHz with square wave 10...30 Volt
5 Volt Line-Driver
11...28 Volt push-pull short-circuit proof
50 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series 8917

- scale 85 mm
- hollow shaft conic
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Favorite pulses 250, 500, 1000, 1024, 1250, 1500, 1800, 2000, 2048, 2500, 3600, 4096 and 5000

MECHANICAL DATA

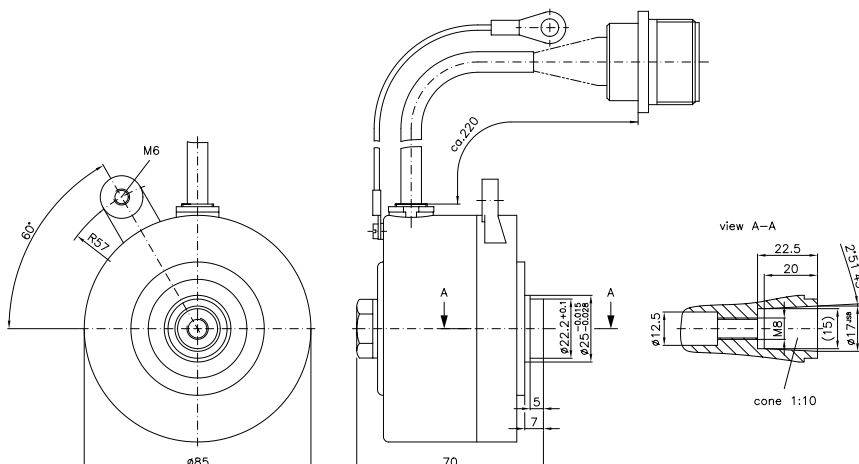
Hollow shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

conic from $\varnothing 17$ to 15 mm, stainless steel
 axial 10 N, radial 20 N
 max. 10.000 prm
 0° C... $+80^{\circ}$ C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 65
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency
 Output level
 Current output
 Output signals

square wave
 LED
 5 Volt $\pm 5\%$,
 10...30 Volt
 max 150 mA
 300 kHz with square wave 5 Volt
 160 kHz with square wave 10...30 Volt
 5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof
 20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90° , 180° oder 360° electrically
 all signals with inversion



Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

- BDG A501/502
- BDG 8716...28
- BDG 91/9206...12
- BDG 9227...55

Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492

**Incremental encoder
series A487**

- scale 80 mm
- shaft with coupling
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

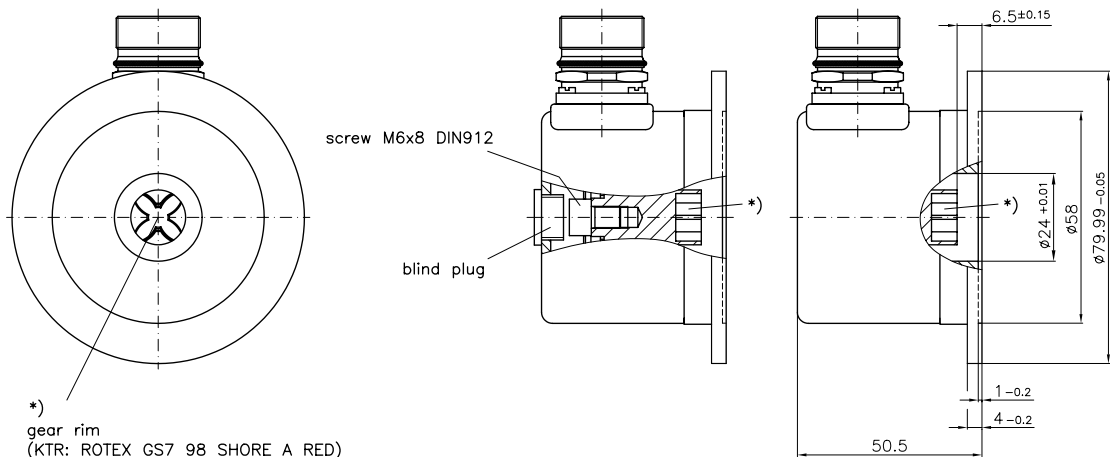
Shaft with coupling
Shaft load
Rotating speed
Working temperature
Vibration
Shock
Ingress protection
89/366/EWG EMV-rules

size on request
axial 10 N, radial 20 N
max. 10.000 prm
0° C...+80° C
10 g (20...2000 Hz)
100 g (11 ms)
IP 64 on shaft
EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
Light source
Operating voltage
Current consumption without load
Scan frequency
Output level
Current output
Output signals

square wave
LED
5 Volt ± 5%,
10...30 Volt
max 100 mA
300 kHz with square wave 5 Volt
300 kHz with square wave 10...30 Volt
5 Volt Line-Driver
10...30 Volt push-pull short-circuit proof
20 mA
2 channels A and B phase-shifted 90° electrically
zero-pulse 1 pulse per revolution
length 90°, 180° oder 360° electrically
all signals with inversion



Incremental encoder series A492

- scale 80 mm
- shaft 10 mm
- each pulse rate up to 10000 ppr



PULSES

Each pulse rate up to 10000 pulses per revolution

Interpolation

internal 5/10/25/50 times interpolation optional

MECHANICAL DATA

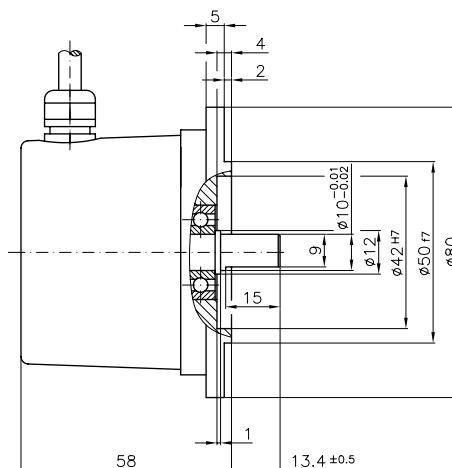
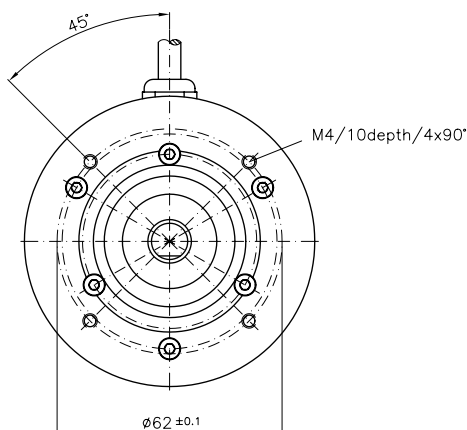
Shaft
 Shaft load
 Rotating speed
 Working temperature
 Vibration
 Shock
 Ingress protection
 89/366/EWG EMV-rules

Ø 10 mm, stainless steel
 axial 10 N, radial 20 N
 max. 10.000 prm
 0° C...+80° C
 10 g (20...2000 Hz)
 100 g (11 ms)
 IP 65
 EN 50081 part 2, EN 50082 part 2

ELECTRICAL DATA

Signals
 Light source
 Operating voltage
 Current consumption without load
 Scan frequency
 Output level
 Current output
 Output signals

square wave
 LED
 5 Volt ± 5%,
 10...30 Volt
 max 100 mA
 300 kHz with square wave 5 Volt
 300 kHz with square wave 10...30 Volt
 5 Volt Line-Driver
 10...30 Volt push-pull short-circuit proof
 20 mA
 2 channels A and B phase-shifted 90° electrically
 zero-pulse 1 pulse per revolution
 length 90°, 180° oder 360° electrically
 all signals with inversion



Sold shaft

- BDG 6360/6310
- BDG 6110
- BDG 8360/8310
- BDG A401/402
- BDG 5909/6009
- BDG 6460/A423

Hollow shaft

- BDG A501/502
- BDG 8716...28
- BDG 91/9206...12
- BDG 9227...55

Angle encoder

- BDG A1310
- BDG A1503
- BDG A1513
- BDG A1526

Special encoder

- Electronic Handwheel
- BDG PRO 100
- BDG PRO 200
- BDG 8917
- BDG A487
- BDG A492

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