Magnetic gear wheel encoder SGM2G-A with anlog sin/cos 1Vpp output signals

Contactless incremental encoder for measuring rotary motion

- High-resolution measurement of rotational speed and rotational angle up to 100,000 RPM
- Robust, not sensitive to dirt
- Temperature stability up to 110°C
- High EMC and ESD stability (up to 30kV)
- Use in drive spindles of machine tools
- "*safety integrated*" certified

Data logger, PuV interface, condition monitoring

- PuV interface for communication with the encoder over the connection cable
- Electronic type lable and operating hours counter
- Monitoring (data logger) of revolution speed, encoder temperature etc.
- Storage of user information
- Automatic self-calibration of signal parameters
- Automatic stabilisation of signal amplitudes

Output signals

- Analog, SIN and COS signals with 1Vpp
- Reference signal

Principle of measurement

- Magnetic, contactless gauging of the steel gear wheels with module M = **0.32**
- Use of magneto-resistive (GMR) sensor elements

Design

- Robust metal sensor housing
- Front cover of the sensor elements using metal foil for additional mechanical and ESD protection
- Shielded connection cable with AWG28
- Optional connecting kit
- ***Mechanically compatible with the SIMAG encoder from SIEMENS***

SGM2G-A...-...32

... for gear wheel module M = 0.32

VS Sensorik GmbH, Edisonstr. 19, D-33689 Bielefeld, Tel: +49 (0)5205 / 99 88 69 0, Fax: +49 (0)5205 / 99 88 69 99, www.vs-sensorik.com

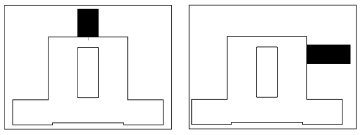
Magnetic gear wheel encoder SGM2G-A
Ordering code

SGM2G – A □□ - □□□ / □□ □□□ - □ ← Connecting kit

Cable length in cm
(e.g. “050” for 50cm)

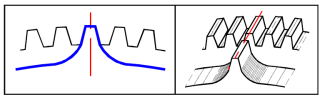
Type of connecting cable: **P** - type “black”
T - type “green”

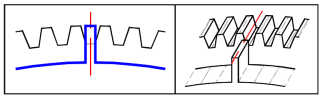
Cable outlet: “ ” - axial “S” - tangential

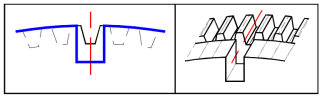


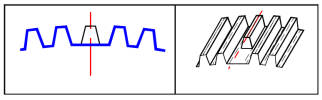
Type of PuV version
M – PuV 2.0
B – PuV 3.0
E – PuV 3.1

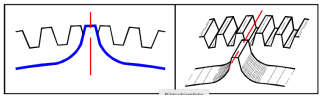
Type of the reference mark (e.g. “Z”, “F” or “K”):

Z – Type 

F – Type 

L – Type 

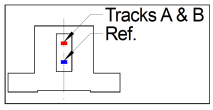
K – Type 

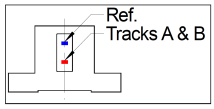
Y – Type 

? – other types on request (e.g. W- and S- type)

32 – for gear wheel module M= 0.32

Position of signal tracks: “**M**” or “**V**”





Parameter for automatic self-calibration of encoder signals
(see PuV description)

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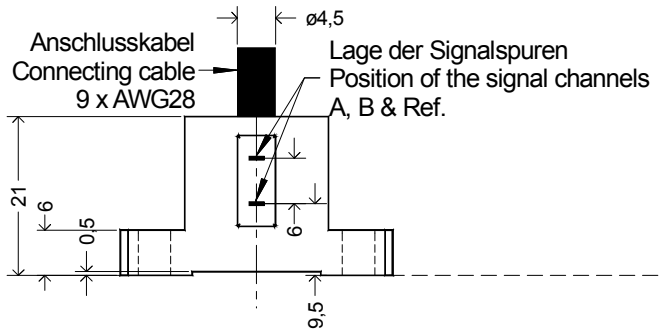
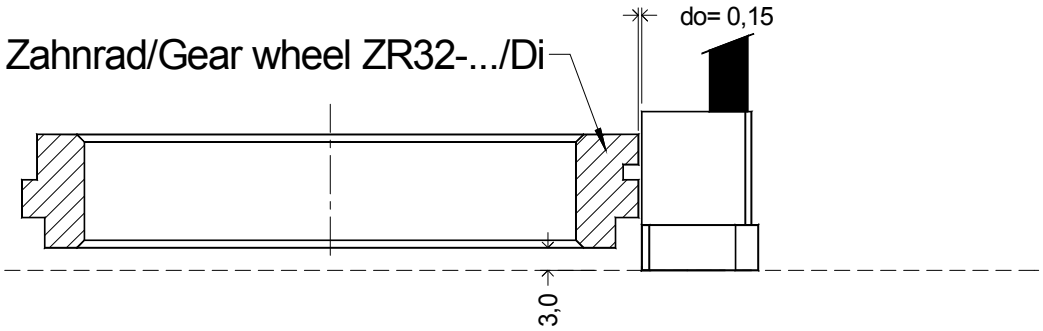
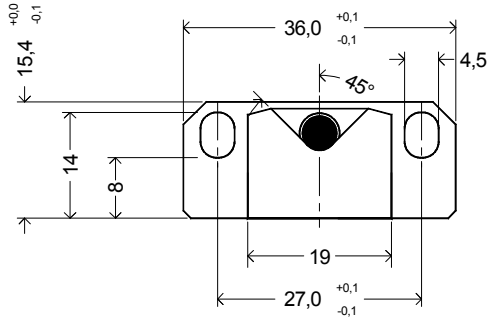
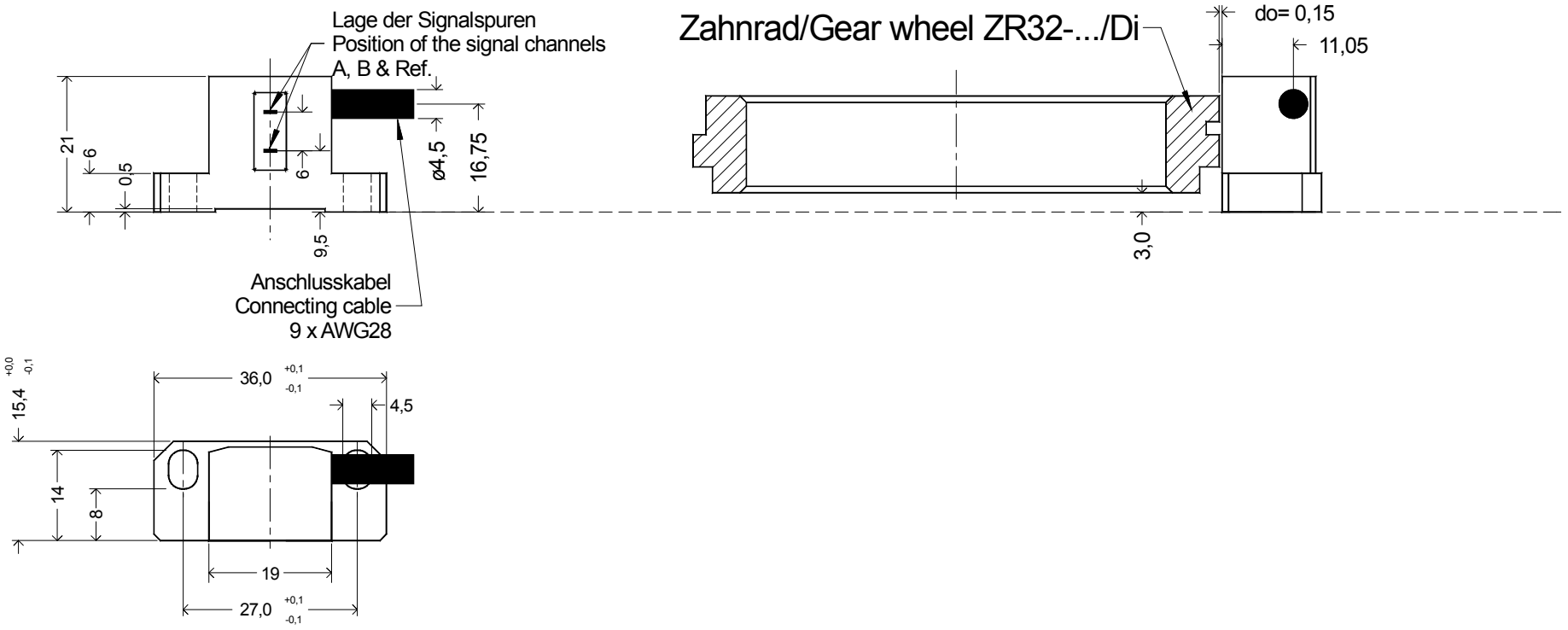


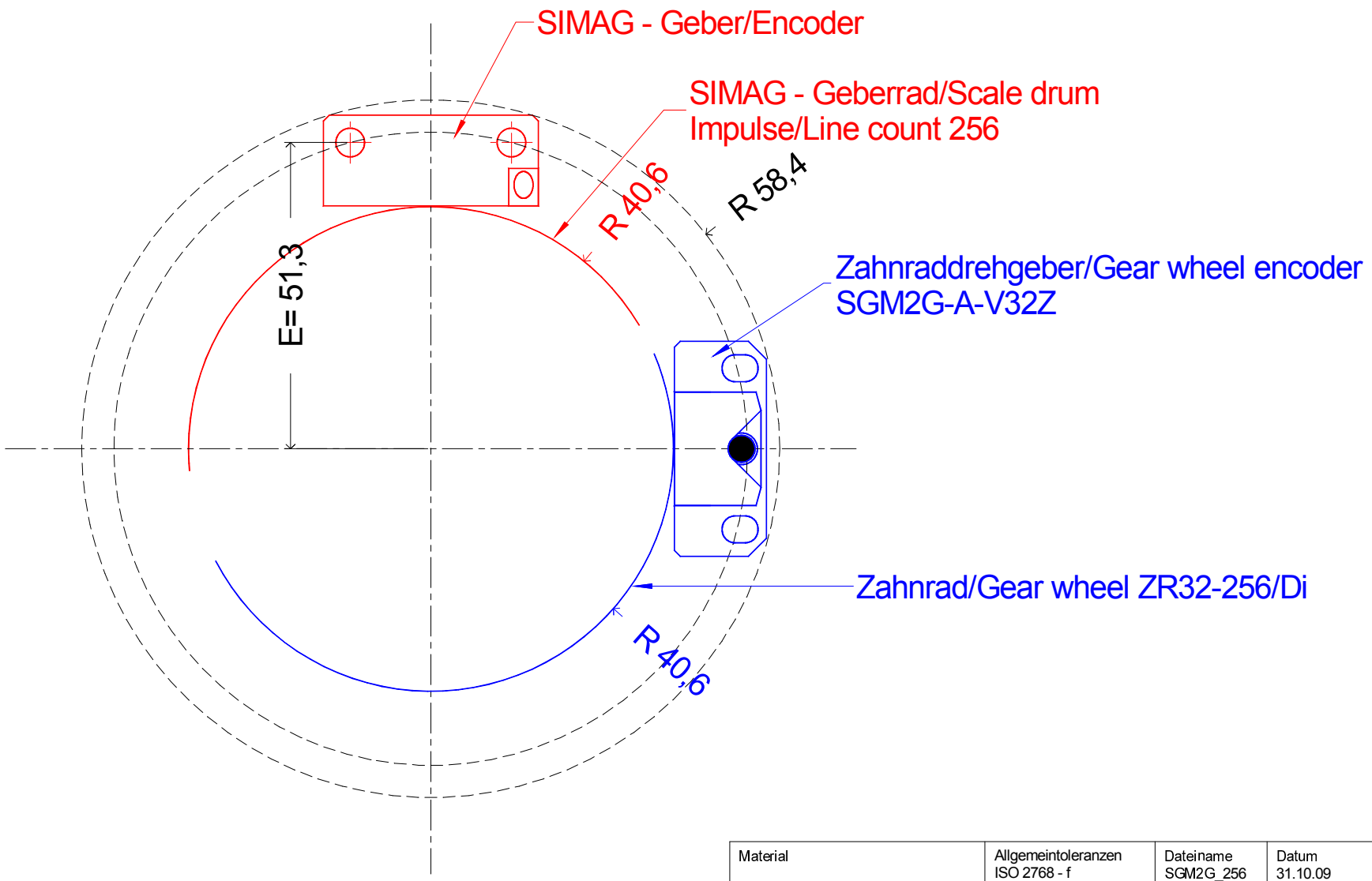




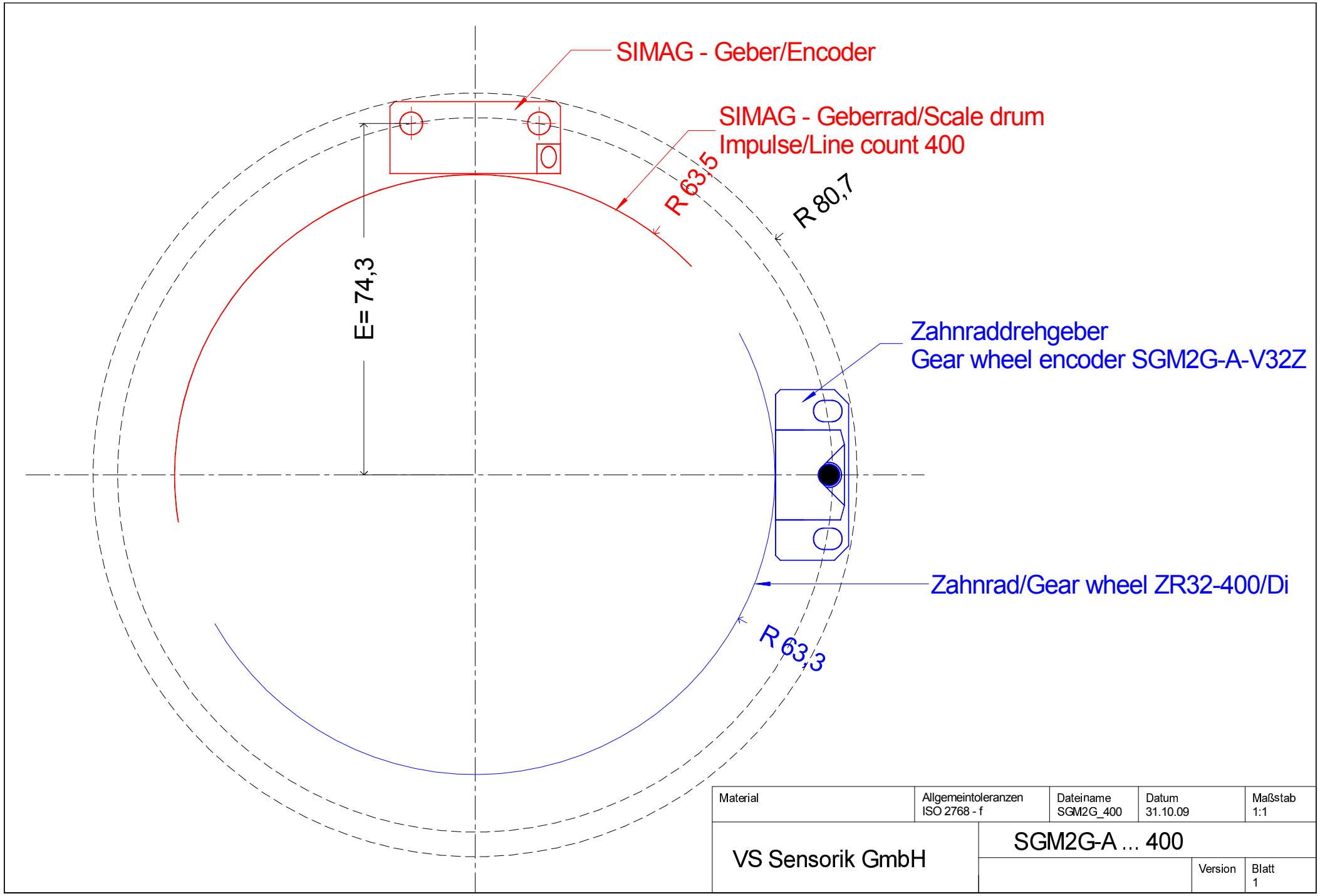
Material	Allgemeintoleranzen ISO 2768 - f	Dateiname SGM2G-V32Z	Datum 23.07.09	Maßstab 1:1
VS Sensorik GmbH	SGM2G-A-V32Z			
	09VS072303		Version 1.0	Blatt 1



Material	Allgemeintoleranzen ISO 2768 - f	Dateiname SGM2G-V32ZS	Datum 23.07.2009	Maßstab 1:1
VS Sensorik GmbH	SGM2G-A-V32Z/S			
	09VS072302		Version 1.0	Blatt 1

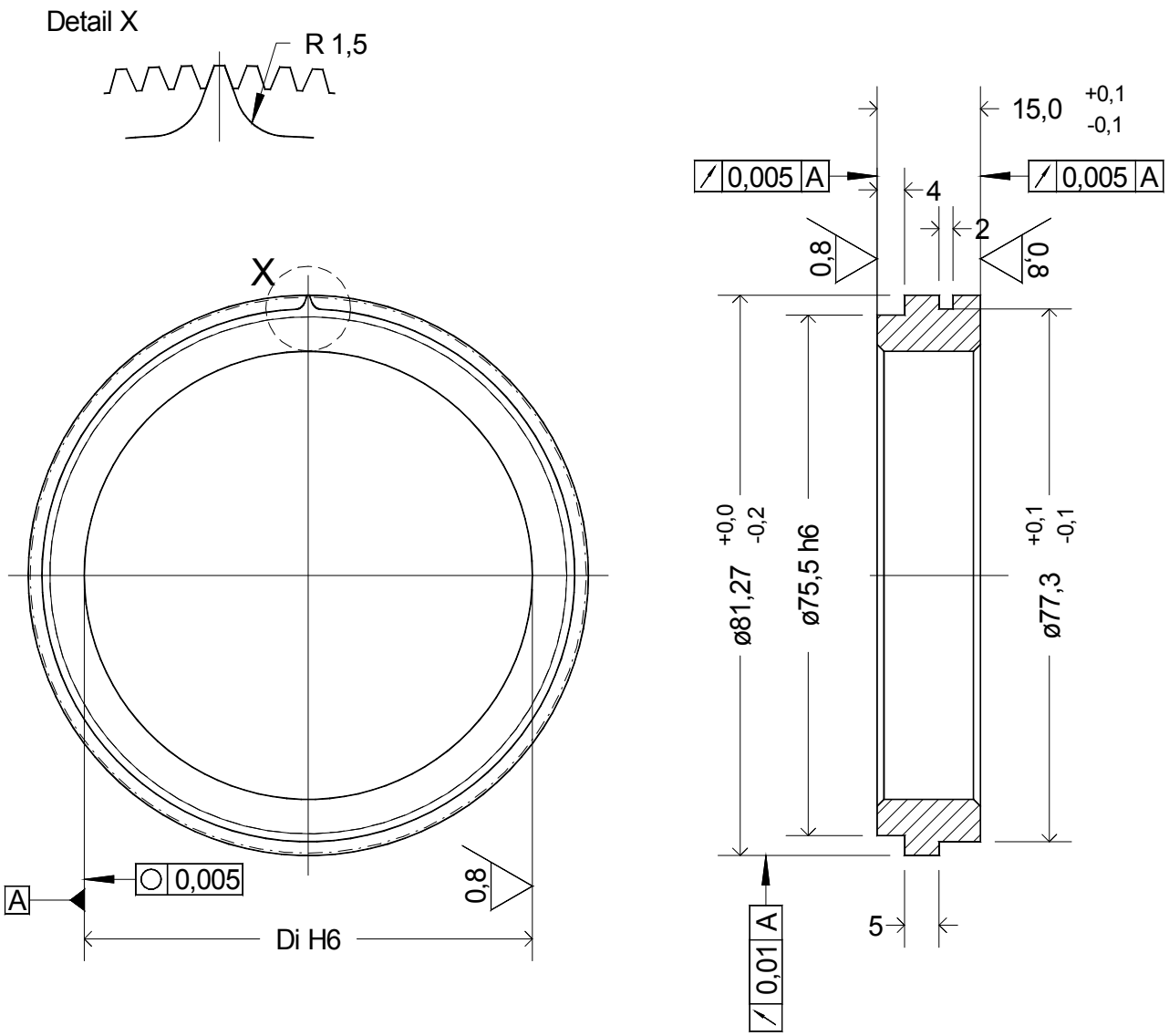


Material	Allgemeintoleranzen ISO 2768 - f	Dateiname SGM2G_256	Datum 31.10.09	Maßstab 1:1
VS Sensorik GmbH		SGM2G-A ... 256		
			Version	Blatt 1



Material	Allgemeintoleranzen ISO 2768 - f	Dateiname SGM2G_400	Datum 31.10.09	Maßstab 1:1
VS Sensorik GmbH		SGM2G-A ... 400		
			Version	Blatt 1

Zahnrad Typ ZR32-256/Di
Gear Wheel Type ZR32-256/Di



Typenbezeichnung
Type Designation

ZR32 - 256/□

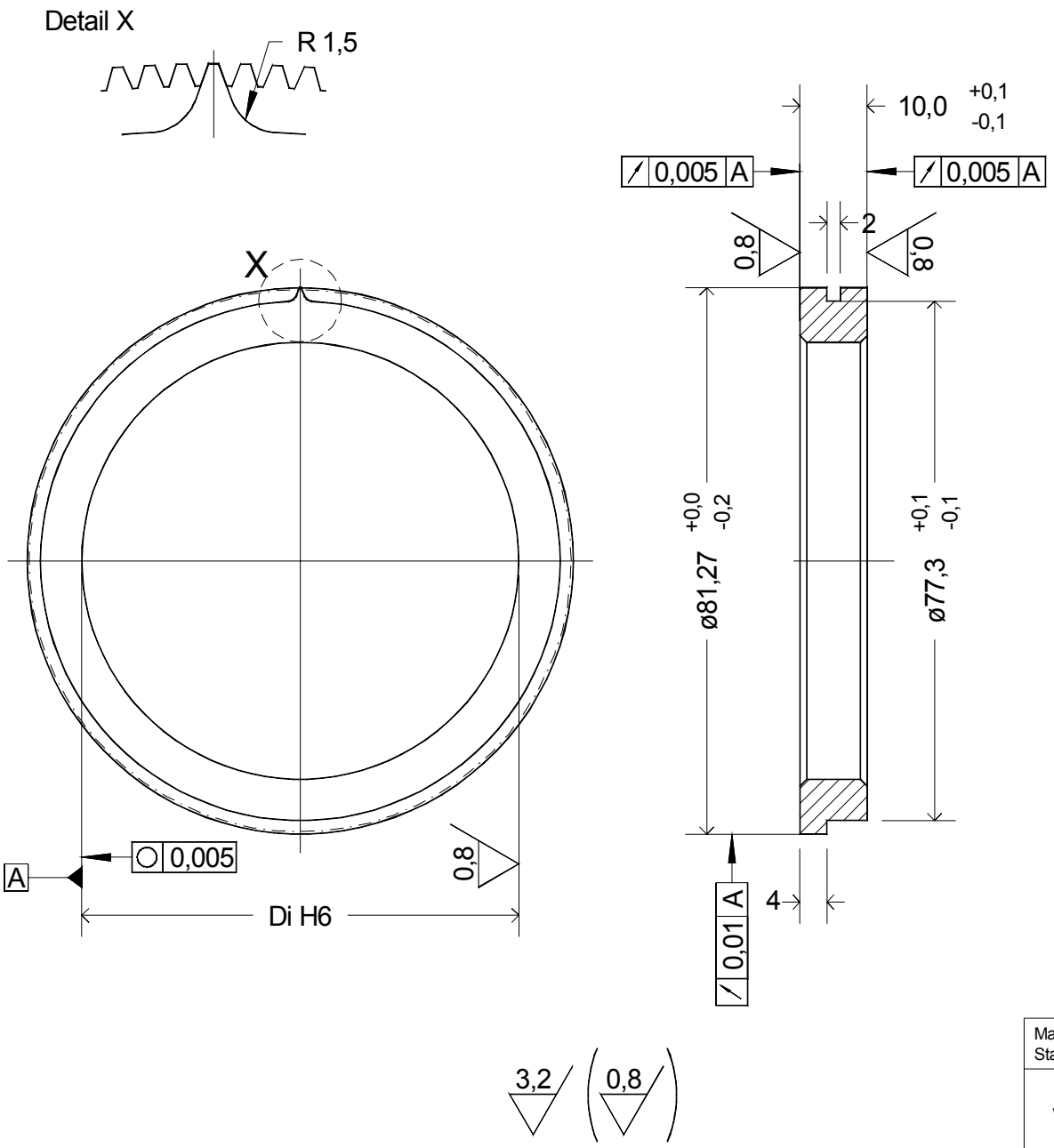
- **Di** (Di < 66mm)
- **Nz = 256** Zähnezahl/Number of Teeth
- **M = 0,315** Modul/Module

Stirnrad nach DIN 3960
Spur Gear according DIN 3960

Modul / Module **M**	0,315
Zähnezahl / Number of Teeth **N**	256
Eingriffswinkel / Pressure Angle	20°
Qualität u. Toleranzfeld / Quality	6h
Material	16MNCr5, 9SMn28K oder/or CK45

Material	Allgemeintoleranzen	Dateiname	Datum	Maßstab
Stahl/Steel	ISO 2768 - f	ZR32-256	21.07.11	1:1

VS Sensorik GmbH	ZR32-256/Di		
	11VS072101	Version 2	Blatt 1



Zahnrad Typ ZRE32-256/Di
Gear Wheel Type ZRE32-256/Di

Typenbezeichnung
Type Designation

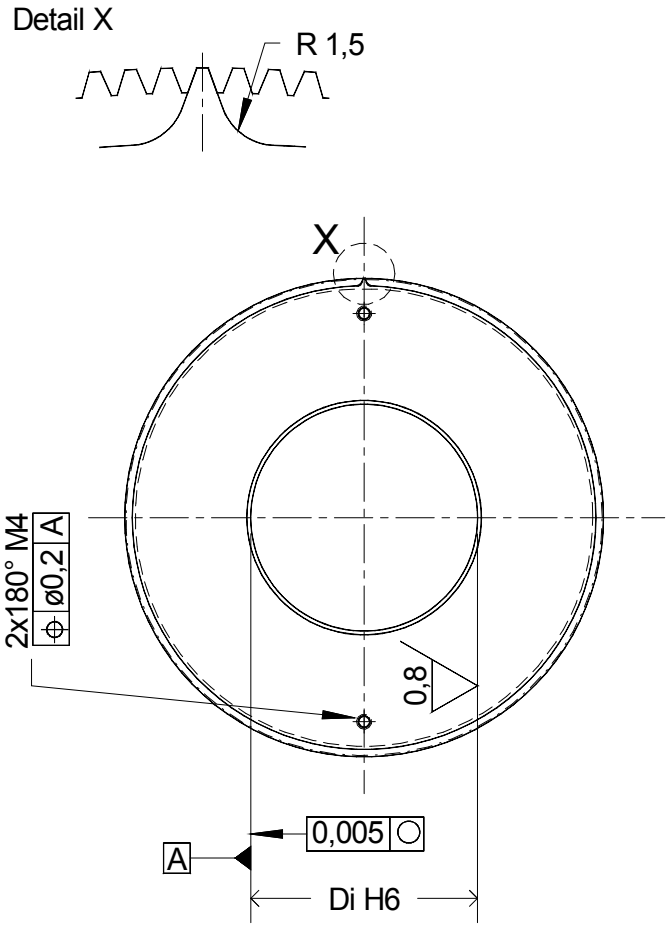
ZRE32-256/45	Di = 45mm
ZRE32-256/55	Di = 55mm
ZRE32-256/60	Di = 60mm
ZRE32-256/65	Di = 65mm

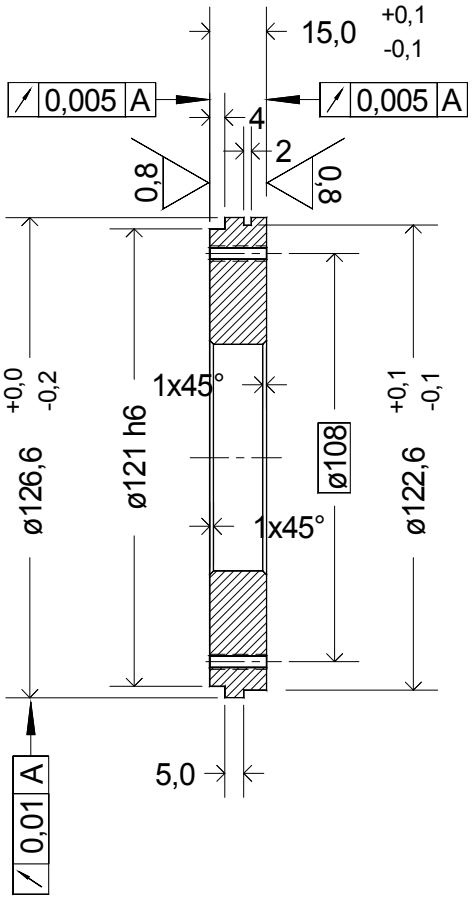
Stirnrad nach DIN 3960
Spur Gear according DIN 3960

Modul / Module **M**	0,315
Zähnezahl / Number of Teeth **N**	256
Eingriffswinkel / Pressure Angle	20°
Qualität u. Toleranzfeld / Quality	6h
Material	16MNCr5, 9SMn28K oder/or CK45

Material Stahl/Steel	Allgemeintoleranzen ISO 2768 - f	Dateiname ZRE32-256	Datum 01.02.10	Maßsta 1:1
VS Sensorik GmbH	ZRE32-256/Di			
	10VS020101		Version 1	Blatt 1

Zahnrad Typ ZR32-400/Di
Gear Wheel Type ZR32-400/Di





Typenbezeichnung
Type Designation

ZR32 - 400/□

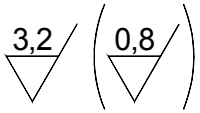
Di
(Di < 111mm)

Nz = 400
Zähnezahl/Number of Teeth

M = 0,315
Modul/Module

Stirnrad nach DIN 3960
Spur Gear according DIN 3960

Modul / Module **M**	0,315
Zähnezahl / Number of Teeth **N**	400
Eingriffswinkel / Pressure Angle	20°
Qualität u. Toleranzfeld / Quality	6h
Material	16MNCr5, 9SMn28K oder/or CK45



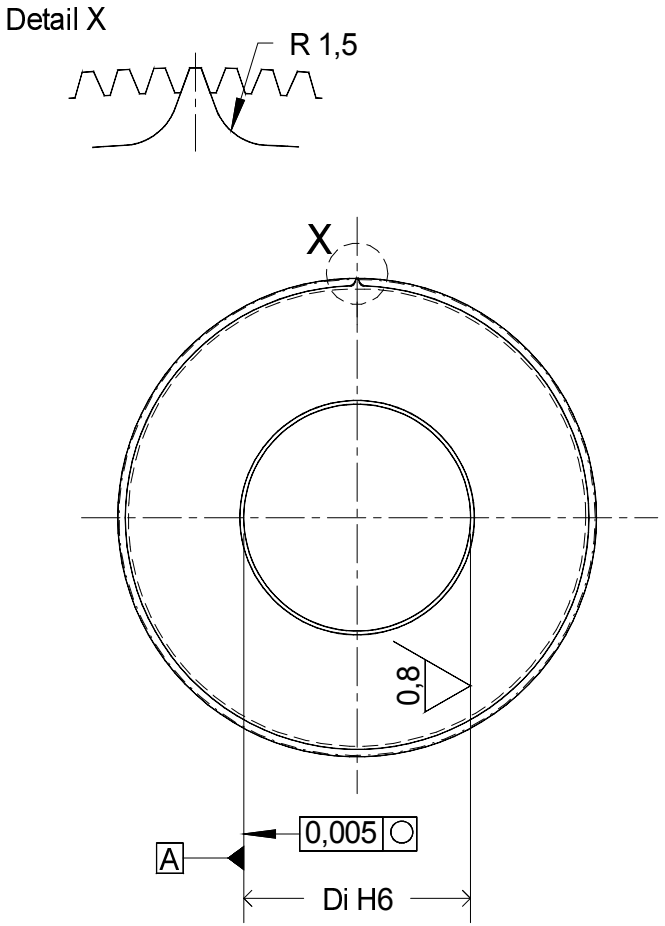
Material	Allgemeintoleranzen	Dateiname	Datum	Maßstab
Stahl/Steel	ISO 2768 - f	ZR32-400-Di	21.07.11	1:2

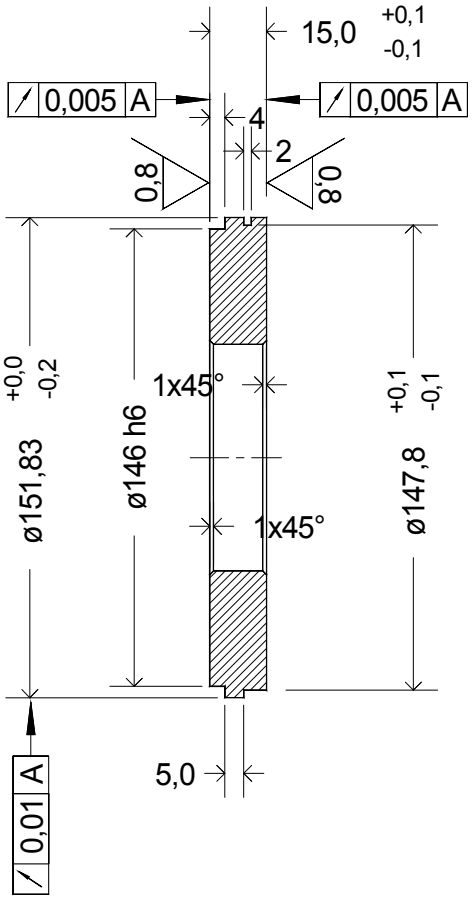
VS Sensorik GmbH

ZR32-400/Di

11VS072102	Version 2	Blatt 1

Zahnrad Typ ZR32-480/Di
Gear Wheel Type ZR32-480/Di





Typenbezeichnung
Type Designation

ZR32 - 480/□

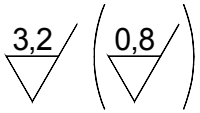
Di
(Di < 136mm)

Nz = 480
Zähnezahl/Number of Teeth

M = 0,315
Modul/Module

Stirnrad nach DIN 3960
Spur Gear according DIN 3960

Modul / Module **M**	0,315
Zähnezahl / Number of Teeth **N**	480
Eingriffswinkel / Pressure Angle	20°
Qualität u. Toleranzfeld / Quality	6h
Material	16MNCr5, 9SMn28K oder/or CK45



Material	Allgemeintoleranzen	Dateiname	Datum	Maßstab
Stahl/Steel	ISO 2768 - f	ZR32-480-Di	21.07.11	

VS Sensorik GmbH	ZR32-480/Di		
	11VS072103	Version 2	Blatt 1