torqXis®

Understand
Monitor
Control

WITTENSTEIN

torqXis® Sensoren

Simultaneous measurement of mechanical parameter in the drive train

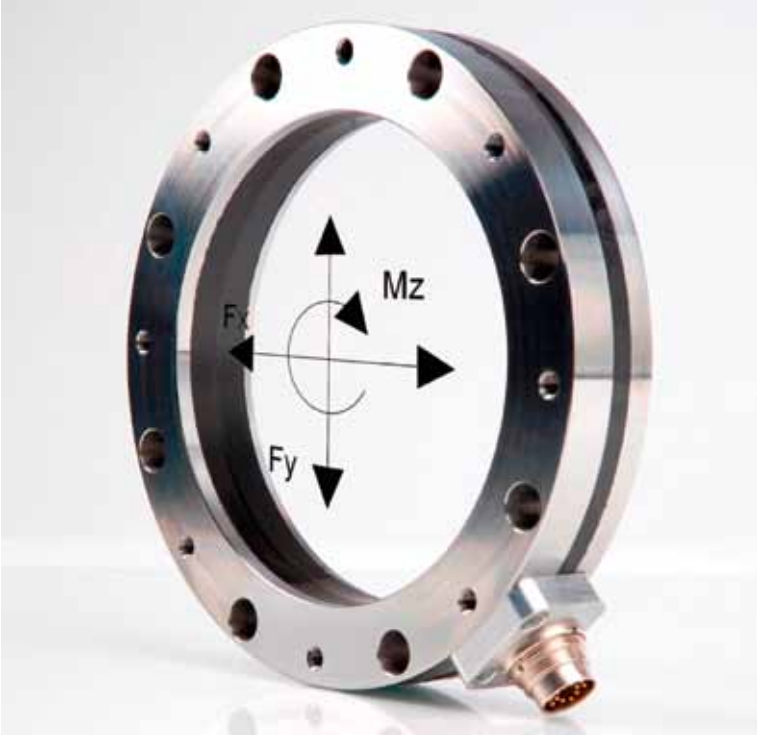
Specification
- Torque range 50 up to 3000 Nm
- Lateral force range 800 up to 30000 N
- Measuring accuracy better than 2 %
- High sample rate 1 kHz
- Compact design – easy integration

Customers benefit
- Cost savings by the optimal drive conception
- Identify real fitting loads
- Increase machine availability
- Preventive warning system for tool wear
- Demand-oriented maintenance – increased productivity

Overall size									
	SFR004	**SFR010**		**SFR025**		**SFR050**		**SFR110**	
Measurement range torque [Nm]	50	100	300	250	800	500	1500	1500	3000
Measurement range lateral force [N]	850	1500	4500	2500	10000	5000	15000	10000	30000

For detailed technical data sheets, please visit **www.wittenstein-sensors.com** or contact us.
If measurement range is not available – for customer specific sensor solutions please contact us.

Simultaneous measurement of mechanical parameter in the drive train



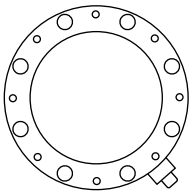
Application

torqXis® sensors are used for applications where a real fitting load profile in the drive train must be measured, understood and/or controlled. They are used on test stands, by industrial robot manufacturers and in mechanical engineering.

torqXis® sensors are an integral component as an development tool for an optimal drive conception, as a guard for important machine parameters or as a control circuit component for dynamic applications. Thanks to the simultaneous measurement of reaction torque and force, the torqXis® sensors are highly innovative and provide deep insight into the drive train.

Mechatronic sensor concept

Measuring body SFR
torqXis® sensor SFR measures simultaneously torques and lateral forces using strain gauge technology.



Cable CASIGN
... - 006
0,6 m

Analog signal
0.2 mV / V

Evaluation processor unit (EPU)
The EPU is used to acquire, store and process the measurement data.

Cable
CASYST ...

Supply 24..40 V

Voltage interface
0..10 V

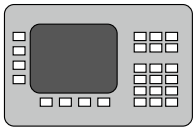
Current interface
0..20 mA

Field bus

RS 232 / RS 485

Mini USB - USB

Environment
Power supply / PLC



Software for analysis
torqXis® Software

Components

Centering device
SFR...- VOR - ZT

Spacer ring
SFR...- DIS -...

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WITTENSTEIN – being one with the future

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WITTENSTEIN

torqXis®

Understand
Monitor
Control

WITTENSTEIN

torqXis® light Sensor

Innovative measurement in the drive train

Specification

- Torque range 50..3000 Nm
  or
- Lateral force range 800..3000 N
- Measuring accuracy better than 2 %
- High sample rate 1 kHz
- Compact design – easy integration

Customers benefit

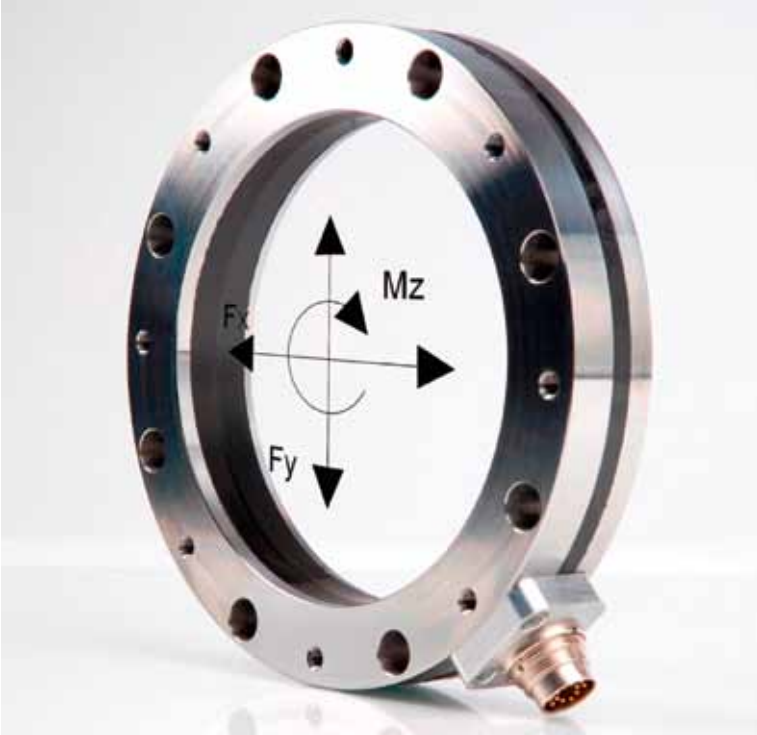
- Cost savings by the optimal drive conception
- To know about real fitting loads
- machine availability increase
- Preventive warning system for tool wear
- Demand-oriented maintenance – increased productivity

Overall size / type for Measurement torque									
	SFR004	**SFR010**		**SFR025**		**SFR050**		**SFR110**	
Measurement range torque [Nm]	50	100	300	250	800	500	1500	1500	3000

Overall size / type for Measurement lateral force									
	SFR004	**SFR010**		**SFR025**		**SFR050**		**SFR110**	
Measurement range lateral force [N]	850	1500	4500	2500	10000	5000	15000	10000	30000

For detailed technical data sheets, please visit **www.wittenstein-sensors.com** or contact us.
If measurement range is not available – for customer specific sensor solutions please contact us.

Measurement of torque or lateral forces



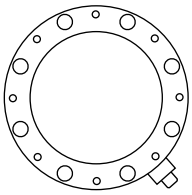
Application

Fundamentally, torqXis® light sensors are suitable as a guard in series applications. Thanks to the accurate detection of the lateral force or torque in the drive train, torqXis® light sensors allow the drive characteristics in continuous use to better understand, and thereby increasing, machine availability. As well, torqXis® light sensors aide in demand-oriented maintenance.

These sensors can be integral as a development tool for an optimal drive or as a control circuit component for dynamic applications. Thanks to the measurement of reaction torque or force, the torqXis® light sensors are the optimal innovation addition and give a deep insight into the drive train.

Mechatronic sensor concept

Measuring body SFR
torqXis® light sensor SFR measures torques or lateral forces using strain gauge technology.



Cable length
fix 0,6m

Analog signal
0.2 mV / V

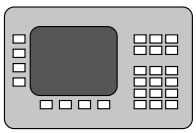
Amplifier analog
Amplified and provides the measurement signals for the environment.

Cable is fix
open end

Supply 24..40V

Voltage interface
0..10V

Environment
Power supply / PLC



Components


Centering device
SFR...- VOR - ZT


Spacer ring
SFR...- DIS -...

For detailed technical data sheets, please visit **www.wittenstein-sensors.com** or contact us.
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