

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
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- ITAR-certified secure asset solutions

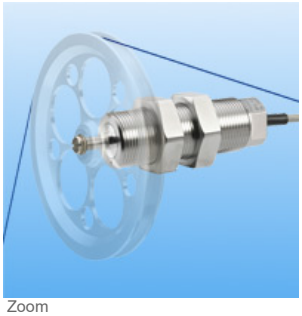
Expert team | Trust guarantee | 100% satisfaction

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Radial force measuring axle RFS® 150

On-line tension measurement up to 3 kN resulting force



Zoom

- designed as a **single-roller** system -
  uses an existing reversing point for tension measurement
- robust, for a wide variety of applications and easy to adapt
- independent of force introduction point / lever arm
- available in 20 rated load ranges:

0 to 1N ... 0 to 5N	**LR - Low Range**
0 to 10N ... 0 to 600N	**SR - Standard Range**
0 to 1kN	**HR - High Range**
0 to 2kN ... 0 to 3kN	**XR - eXtended Range**

Description

RFS® stands for enduring online precision. The specified and calibrated accuracy remains unchanged throughout the unit's service life and, across wide ranges, is independent of

- the force introduction point, i.e. the sensor is not affected by lever arm action
- any axial tilt torques which might appear
- direct axial forces

The functional principle makes for superb sensitivity while at the same time offering enormous performance capabilities. The force acting radially at the bearing journal, along the measurement vector, causes a microscopically small, elastic deformation of the complex load cell. The deformation is registered at an exactly pre-determined position by way of strain gauges and is then evaluated precise electronically.

The high mechanical stiffness of the load cell enables measurement with virtually no excursion.

This tension measurement principle is based on the evaluation of the force applied radially and transferred to the sensor by way of the bearing journal. This force is determined by the reversing geometry and the line tension.

Special features

- extremely robust by overload protection up to 800%
- existing reversing points can be adapted as measurement points
- independent of the force introduction point, i.e. the sensor is not affected by lever arm action
- no influence of any axial tilt torques or direct axial forces which might appear
- centrifugal force will take no affect with optimal alignment in rotating purposes
- stainless steel housing
- thought-through concept of housing for simple mounting
- also suitable to design measuring rollers for acquisition of very low web tensions

Force ranges and bearing journals

Nominal force [N]							Bearing journal Ø [mm]			
1*	2*	3*	4*				5	8	10	
5*	10	20	30	40			5	8	10	
50	60	100	200	300	400			8	10	12
500	600	1000**							10	12
			2000***	3000***						12

The measuring range of the sensor begins at force's zero point.
Bearing journals and nominal forces differing from the list are available.
* Special type **LR** (**L**ow **R**ange)
** Special type **HR** (**H**igh **R**ange)
*** Special type **XR** (e**X**tended **R**ange)

PreView



... with one click to more information at the **InfoGallery**

Options



Seal gas protection
- use with seal gas

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Cylindrical sensor housing
- cylindrical sensor housing
- for clamping

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Vacuum design
- in vacuum / high-vacuum

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Connection types



Open ends

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Cable connector, male
- 6-pole, 270°
- gold-plated contacts

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Measuring amplifiers



TS 621
- for strain gauge sensors
- optional outputs
- 24V DC power supply
- galvanic isolation

to product page



TS 481
- for strain gauge sensors
- 19” or mounting plate
- 3 parallel outputs
- 115 / 230V AC power supply

to product page



TS 503
- for strain gauge sensors
- low cost
- only 12,5mm wide
- 24V DC power supply

to product page



MU 481-19" DigaLog
- for strain gauge sensors
- 1-channel meas. amplifier
- digital / analog displays
- rugged desktop housing

to product page

... more measuring amplifiers for this sensor in **Summary**

Recommended periphery



DPM 502
- LED-display, 3½-digit
- freely scalable
- front-side operation
- 24V DC power supply

to product page



HCC-Easy
- measuring
- storing
- analysing

to product page

Accessories



Ceramic pin with holder
- for bearing journal dia.8mm

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Bearing journal adapter
- customer-specific
- short-term delivery

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Protection cap RFS
- standard scope of supplies

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Clamping flange Z
- for flange mounting
- Ø 69 / 22 mm, 20 mm width
- with centre stud
- stainless steel

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Installation accessories



Sensor cable strain gauge female/male
- gold-plated contacts
- cable length custom-specific

to product page



Sensor cable strain gauge female/open ends
- gold-plated contacts
- cable length custom-specific

to product page



Connection terminal 1/1
- aluminium diecast housing
- Skintop cable gland
- gold-plated contacts
- **1 sensor / 1 amplifier**

to product page



Connection terminal 2/1
- aluminium diecast housing
- Skintop cable gland
- gold-plated contacts
- **2 sensors / 1 amplifier**

to product page

... more Installation accessories in **Summary**

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

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