

On-Line TENSION SENSOR

RFS RFSE (Built-in Amplifier)

The New CHECK•LINE® Models RFS/RFSE Tension Sensors measure the running line tensions of yarns, wires, optic fibers, cables, tapes/bands, warps/webs, foils and similar process materials.

Their unique strain-gauge design delivers superb accuracy and stability, as well as providing maximum overload protection.

This versatile sensor design is suitable for applications from as low as 1 or 2 grams up to 100 Kg.

FEATURES

- Resolution of 0.1% and better
- Overload protection up to 800%
- Rugged stainless steel housing is environmentally sealed
- Threaded housing with lock-nuts permits easy mounting and simple alignment
- Wide variety of precision, ball-bearing-mounted guide rollers are available
- Supplied with a 10 ft. (3 meter) shielded cable. Optional lengths are available



RFS Sensor shown with and without roller.

Model RFSE

Same as RFS Sensor with a built-in amplifier providing a 0–10 VDC or 4–20 mA output. A 24 VDC user-supplied power source is required.



Additional Models Available

3-Roller Designs

The RFS/RFSE sensors can be supplied in a 3-roller design incorporating outer guide rollers. A wide variety of configurations is available.

Tapes, Webs & Warps

A flat, cylindrical roller, with or without flanges, is offered for tapes, bands, warps and webs in various sizes up to 400mm wide.

Custom Designs

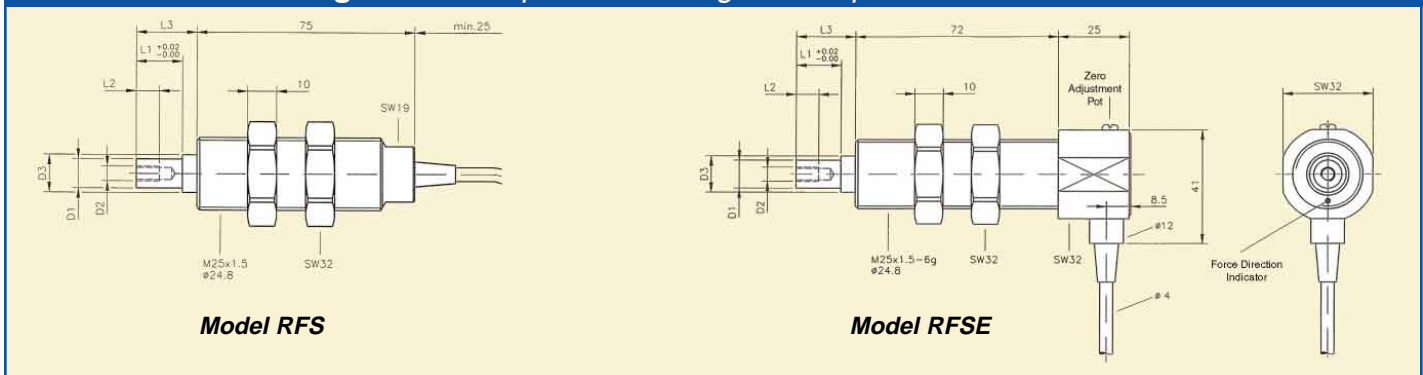
For unique applications, a custom design can be developed to meet most requirements.

Standard Load Ratings* — Other ranges available upon request.

Code	100	500	1K	2K	5K	10K	20K	50K	100K
g/Kg	0–100 g	0–500 g	0–1000 g	0–2000 g	0–5 Kg	0–10 Kg	0–20 Kg	0–50 Kg	0–100 Kg
cN/da	0-100 cN	0-500 cN	0-1 daN	0-2 daN	0-5 daN	0-10 daN	0-20 daN	0-50 daN	0-100 daN
Pounds	0–.22	0–1.1	0–2.2	0–4.4	0–11	0–22	0–44	0–110	0–220

* Load Rating is defined as the resultant force exerted on the sensor in the force direction. See definitions below.

Dimensional Drawings — See separate drawing for complete details.



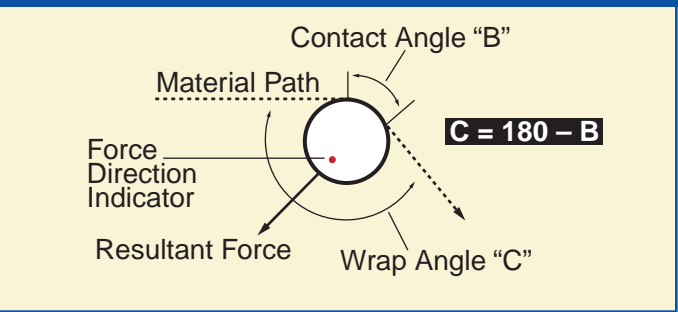
Part Numbering Scheme

Sensor Type	Load Rating	Roller Type
RFS	See Load Ratings Table	000 = No Roller VXX = V-Grooved Roller UXX = U-Grooved Roller RXX = Ribbon Roller SXX = Special Configuration
RFSE	See Load Ratings Table	

Example: **RFSE-5K-000** = RFSE Sensor with "5K" Load Rating (0–5 Kg) without Roller

Note 1: Ribbon rollers with up to 4" in width are available.
Note 2: (XX) defines a specific roller configuration.

Tension and Force Definitions



Specifications

Measuring Principle	Strain Gauge	Operating Temperature	15 to 155 °F (–10 to 70 °C)
Accuracy	±0.5% Full Scale or better	Weight	400 grams
Sensor Excitation	10 VDC (12 VDC, max.)	Additional Specifications for RFSE	
Sensor Output	1.5 mV/V	Sensor Excitation	19 – 28 VDC (24 VDC recommended @ 36 mA)
Input Resistance	350 Ohms	Sensor Output	0 – 10 VDC (standard) 4 – 20 mA (optional)
Output Resistance	350 Ohms	Frequency Response	5 msec (200 Hz)
Overload Protection	400 – 800%	Zero Adjustment	±45%
Deflection	0.07mm (max.)	Weight	500 grams
Housing Material	Stainless Steel		
Environmental Protection	IP50 (Dust Proof)		
Cable Type	4.5mm diameter shielded cable with bare leads		
Cable Length	10 ft. (3 meter), longer lengths available. Inquire.		

CHECK•LINE® – PRECISION QUALITY CONTROL INSTRUMENTS

Electromatic Equipment Co., Inc.
600 Oakland Ave.
Cedarhurst, N Y 11516 —USA

Tel: 800-645-4330 (USA & Canada)
Tel: (516) 295-4300
Fax: (516) 295-4399

Email: info@checkline.com
Visit us on the world wide web
at www.checkline.com

FOR ADDITIONAL INFORMATION OR TO PLACE AN ORDER CALL TOLL FREE 1-800-645-4330