Rotating Torque Sensors

s_FYRD SERIES

(rotary socket torque sensor with square drive ends)

s_FYRD torque sensor series generalities

s_FYRD series is a rotary socket torque sensor with square drive ends, specifically designed for torque measurements to be performed with bolt fastening systems, and other electrical and pneumatic nut running tools.

Within the other potential uses, there are the calibration checking of mechanical torque wrenches and obviously, of fastening systems and nut-runners, as also the "real time" torque reading for "blind" tools (this will require to couple the torque sensor with a portable indicator).

The ***s_FYRD*** torque sensor is based on steel alloy shaft (male and female square drive ends), on which is applied a full *Weathstone* strain gauge bridge.

A silvered slip ring assembly coupled to a brushes set, allows the ***s_FYRD*** torque sensor to be used for rotary application, with maximum rotational speed up to 2500 rpm. These transmit the torque sensitive bridge excitation to, and the transduction output signal from, the rotating square drive torque sensor.

Each unit is CE compliant and it is provided with its factory traceable (to *Chinese National Metrological Network*), calibration certificate.

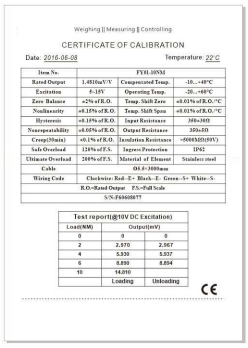
s-FYRD rotary torque sensor with square drive ends

s_FYRD torque sensor series main characteristics:

- **several measuring ranges are available within the *s_FYRD* series;**
- **good overall accuracy, cost effective;**
- **strain gauge based technology, slip ring rotary torque sensor;**
- **rotational speed up to 2500 rpm, clockwise, counterclockwise;**

s_FYRD torque sensor series specifications:

- available ranges:	±5, ±10, ±15, ±20, ±30, ±50, ±100, ±200, ±300 and ±500 Nm;
- rated output:	1.0 to 1.5 mV / V;
- excitation:	from 5 to 15 Vdc (maximum);
- zero balance:	±2 % R.O.;
- linearity error:	±0.25 % R.O.;
- hysteresis:	±0.25 % R.O.;
- non repeatability:	±0.1 % R.O.;
- creep (30 min):	±0.1 % R.O.;
- safe overload:	120 % F.S.;
- ultimate overload:	150 % F.S.;
- compensated temperature:	-10 to +40 °C;
- operating temperature:	-20 to +60 °C;
- temperature shift (*zero*):	±0.02 % R.O./ °C;
- temperature shift (*span*)	±0.01 % R.O./ °C;
- input bridge resistance:	350 ±30 ohms;
- output bridge resistance:	350 ±10 ohms;
- insulation resistance:	> 5000 Mohms (50 V);
- ingress protection:	IP62;
- shaft material:	steel alloy;
- electrical connection:	socket connector with cap (flying connector provided);
- max rotational speed:	2500 rpm.

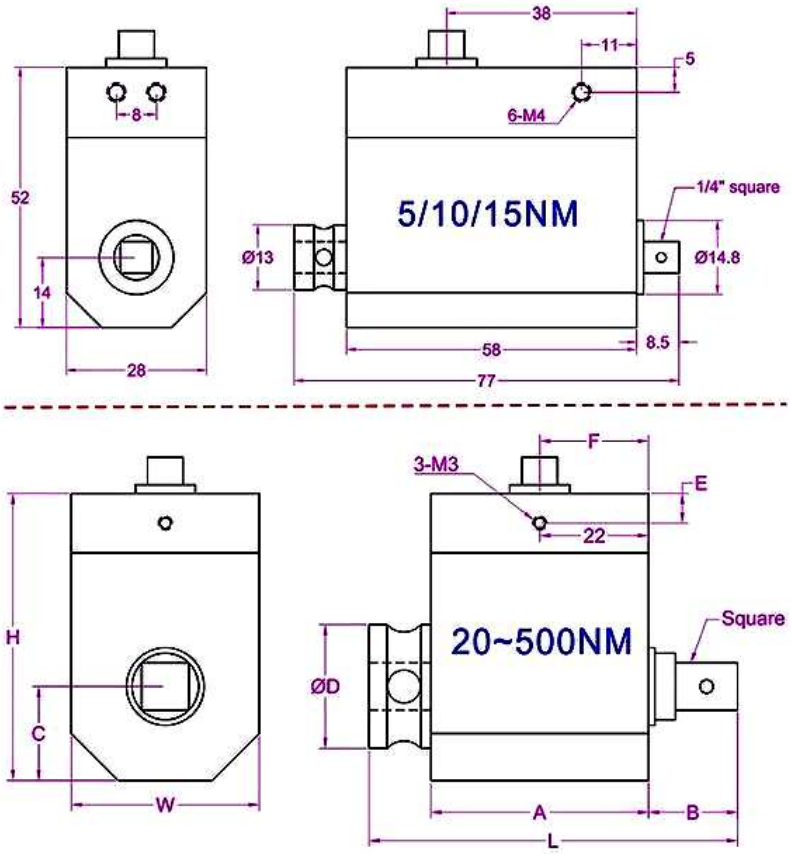

CERTIFICATE OF CALIBRATION

sample of calibration certificate


Certificate of Compliance

sample of manufacturer CE certificate

s_FYRD torque sensor series dimensions:



Unit in "mm" unless otherwise specified

Capacity(NM)	Square	L	W	H	A	B	C	D	E	F
20/30/50	3/8"	74.5	38	58	44	18	19	25	6	22
100	1/2"	79	38	58	44	22.5	19	25	6	22
200/300/500	3/4"	97	58	76	50	30	29	40	5	25

Torque sensor s_FYRD dimensions (mm, unless differently specified)

s-FYRD rotary torque sensor with square drive ends

s-FYRD rotary torque sensor top view

s_FYRD torque sensor series manufacturer:

s_FYRD torque sensor manufacturer is a Chinese growing company consolidating its European, North and South Americas markets, capable of design and manufacturing several strain gauges based sensors, like miniature and button shaped load cells, static torque sensors, and obviously several others dynamic torque sensors, including no-contact versions (brushes and slip rings free). All the products (starting from strain gauges, elastic bodies, and finished products), are duly submitted to the production end quality controls. Custom design of force and torque based sensors is also welcome.

SPARE S.r.l.
Via Carlo Spagnolo, 4
27057 Varzi - Pavia - Italia
tel. (+39) 0383-54.51.51
fax (+39) 0383-54.50.51
http://www.spare.it - sales@spare.it
SPARE

Distribution by: