

TORQUE SENSORS



STATIC TORQUE SENSORS



CS1060



CS1120



CS1210

Package	Square male coupling	Keyed shaft connections	Collar mechanical fittings
Operating Mode	Reaction	Reaction	Reaction
Unique Features	<ul style="list-style-type: none"> • Optional high level output • Keyed shaft connection • Static measurements 	<ul style="list-style-type: none"> • Optional high level output • Static torque measurement • Excellent temperature stability 	<ul style="list-style-type: none"> • High stiffness • Low transverse sensitivity • Optional high temp option
FS Ranges	±5 to ±7,000 Nm ±4 to ±5,600 lbf-ft	±5 to ±2,500 Nm ±4 to ±2,000 lbf-ft	±160 to ±10,000 Nm ±128 to ±8,000 lbf-ft
Max. Over-range	1.5X FS	1.5X FS	1.5X FS
Output/Span	±20 mV , 0.5-4.5V	±20 mV , 0.5-4.5V	±20 mV , 0.5-4.5V
Combined Non-linearity & Hysteresis	< ±0.25% FS	< ±0.25% FS	< ±0.25% FS
Operating Temp.	-20°C to 100°C	-20°C to 100°C	-40°C to 150°C
Dimensions (mm)	Application dependent	Application dependent	Application dependent
Typical Applications	Non-rotating parts torque measurement, robotics and effectors, laboratory and research	Non-rotating parts torque measurement, robotics and effectors, laboratory and research	Non-rotating parts torque measurement, robotics and effectors, laboratory and research

DYNAMIC TORQUE SENSORS



CD1050

Package	Square male couplings
Operating Mode	Dynamic rotary
Unique Features	<ul style="list-style-type: none"> • Optional high level output • Rugged • Slip ring measurement interface
FS Ranges	±5 to ±7,000 Nm ±4 to ±5,600 lbf-ft
Max. Over-range	1.5X FS
Output/Span	±20 mV, 0.5-4.5V
Combined Non-linearity & Hysteresis	< ±0.25% FS
Operating Temp.	-20°C to 80°C
Dimensions (mm)	Application dependent
Typical Applications	Engine efficiency, robotics and effectors, laboratory and research



CD1095

Package	Keyed shaft couplings
Operating Mode	Dynamic rotary
Unique Features	<ul style="list-style-type: none"> • High accuracy • Built-in amplifier • Bi-directional measurement
FS Ranges	±5 to ±2,500 Nm ±4 to ±2,000 lbf-ft
Max. Over-range	1.5X FS
Output/Span	±20 mV, 0.5-4.5V
Combined Non-linearity & Hysteresis	< ±0.25% FS
Operating Temp.	-20°C to 80°C
Dimensions (mm)	Application dependent
Typical Applications	Process control equipment, robotics and effectors, test and measurement



CD1110

Package	Keyed shaft couplings
Operating Mode	Dynamic rotary
Unique Features	<ul style="list-style-type: none"> • Low range measurements • Bi-directional measurement • Mechanical over-range stops
FS Ranges	±0.05 to ±2 Nm ±0.04 to ±1.6 lbf-ft
Max. Over-range	10X FS
Output/Span	±20 mV, 0.5-4.5V
Combined Non-linearity & Hysteresis	< ±0.25% FS
Operating Temp.	-20°C to 80°C
Dimensions (mm)	Application dependent
Typical Applications	Process control equipment, robotics and effectors, test and measurement

CONTACTLESS TORQUE SENSORS



CD1140

Package	Keyed shaft couplings
Operating Mode	Contactless
Unique Features	<ul style="list-style-type: none"> • High accuracy • Built-in amplifier • Speed and angle detection
FS Ranges	±0.05 to ±20,000 Nm ±0.04 to ±16,000 lbf-ft
Max. Over-range	2X FS
Output/Span	±10 V (60 pulses/rev)
Combined Non-linearity & Hysteresis	±0.1% FS
Operating Temp.	0°C to 60°C
Dimensions (mm)	Application dependent
Typical Applications	Process control equipment, robotics and effectors, test and measurement



CD9515

Package	Keyed shaft couplings
Operating Mode	Contactless
Unique Features	<ul style="list-style-type: none"> • Economical • Small form factor • Speed and angle detection
FS Ranges	±5 to ±1,000 Nm ±4 to ±738 lbf-ft
Max. Over-range	2X FS
Output/Span	±5 V (60 pulses/rev)
Combined Non-linearity & Hysteresis	±0.3% FS
Operating Temp.	0°C to 60°C
Dimensions (mm)	Application dependent
Typical Applications	Industrial applications, process control equipment, PLC compatible

AUTOMOTIVE TEST TORQUE SENSORS



FCA7300

Package	Steering wheel adaptable
Operating Mode	Multi-sensing
Unique Features	<ul style="list-style-type: none"> • Dual torque/angle range • Steering velocity measurement • Fits all road vehicles
FS Ranges	10 to 200 Nm (7 lbf-ft to 150 lbf-ft)
Max. Over-range	10X FS
Output/Span	±10 V
Combined Non-linearity & Hysteresis	±0.1% FS
Operating Temp.	-20°C to 80°C
Dimensions (mm)	Ø195 x 50
Typical Applications	On-car road test, truck and buses steering test, armored vehicles steering test



CD1124T

Package	Engine shaft dynamic torque meter
Operating Mode	Contactless
Unique Features	<ul style="list-style-type: none"> • Heavy duty vehicles • Telemetry based • Gearbox to engine shaft measurement
FS Ranges	20,000 Nm (16,000 lbf-ft)
Max. Over-range	1.5X FS
Output/Span	±10 V
Combined Non-linearity & Hysteresis	±1% FS
Operating Temp.	-20°C to 80°C
Dimensions (mm)	Ø195 x 35
Typical Applications	Automotive test benches for engine shaft torque measurement