

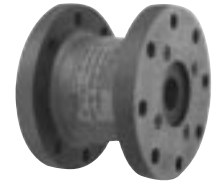
# Shaft and Flange Type Reaction Torque Transducers

## Models QSFK-9 and QFFH-9

WIDE DYNAMIC RANGE

HIGH FREQUENCY

STAINLESS STEEL



Model QSFK-9 (Shaft Type)

Model QFFH-9 (Flange Type)

SENSOTEC's Models QSFK-9 and QFFH-9 Reaction Torque, (shaft and flange type) transducers are designed for installation between test pieces such as motors, switches, axles or shafts and their mounting plate. These models operate and are calibrated in both directions. Stainless steel construction enhances durability in harsh, industrial environments. These models have no moving parts and utilize four bonded strain gages on a special machined portion of the transducer to achieve a maximum non-linearity of 0.1% over a wide dynamic range. Typical applications include tire braking, motor dynamometers, friction-skid testing, torque tables and twist measurement.

PERFORMANCE

	Model QSFK-9	Model QFFH-9
Torque Ranges.....	100 to 24,000 in.-lb.	3000 to 24,000 in.-lb.
Non-Linearity (max).....	±0.1% F.S.	±0.1% F.S.
Hysteresis (max).....	±0.1% F.S.	±0.1% F.S.
Non-Repeatability (max).....	±0.03% F.S.	±0.03% F.S.
Output.....	2mV/V	2mV/V
Resolution.....	Infinite	Infinite

ENVIRONMENTAL

Temperature, Operating.....	-65° F to 225° F	-65° F to 225° F
Temperature, Compensated.....	60° F to 160° F	60° F to 160° F
Temperature Effect		
- Zero (max).....	.005% F.S./° F	.005% F.S./° F
- Span (max).....	.005% Rdg./° F	.005% Rdg./° F

ELECTRICAL

Strain Gage Type.....	Bonded foil	Bonded foil
Excitation.....	10VDC	10VDC
Bridge Resistance.....	350 ohms	350 ohms
Wiring Code (std).....	#2 (See Pg. AP-7)	#2 (See Pg. AP-7)
Electrical Termination (std).....	MS3102A-14S-6P or equiv.	PTIH-10-6P or equiv.
Mating Connector (non incl.).....	MS3106A-14S-6S or equiv.	PT06A-10-6S or equiv.

MECHANICAL

Static Overload Capacity.....	50% over capacity	50% over capacity
Case Material.....	Stainless steel	Stainless steel

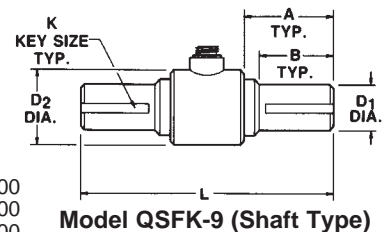
### Dimensions

**Model QSFK-9 (Order Code BT111)**  
Available Ranges

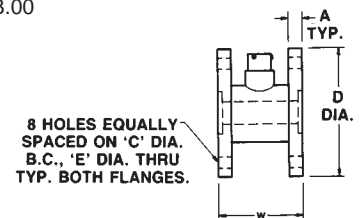
(IN-LBS)	D1"	D2"	K" Key Size	A" Typ.	B"	L"
100	.75	2.25	3/16	2.75	2.25	8.00
600; 1200	1.00	2.25	1/4	2.75	2.25	8.00
3000; 6000; 12,000	1.50	3.50	3/8	3.75	3.00	11.00
24,000	2.75	4.00	5/8	5.10	4.00	13.00

**Model QFFH-9 (Order Code BT121)**  
Available Ranges

(IN-LBS)	D" Dia.	W"	A" Dia. B.C.	C" Dia. Thru	E" Dia. Thru
3000; 6000	4.00	3.00	.50	3.25	.39
12,000; 24,000	5.00	3.50	.75	4.25	.39



Model QSFK-9 (Shaft Type)



Model QFFH-9 (Flange Type)

### Options (See Appendix)

Temperature compensated 1b, 1c, 1f; Electrical termination 6a (shaft type only); 6e, 6f, 6g, 6h

Premium Options: 1d, 1e

Accessories: Mating connectors and connector/cable assemblies

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