



SFT200D

Features

- Simultaneously detects force 3-axis (F_x , F_y , F_z) and moment (M_x , M_y , M_z)
- Possible to measure static and dynamic operation
- High responsiveness of 1kHz that captures quick changes
- Built-in amplifier and microcomputer for load measurement
- Built-in low-pass filter function
- Possible to detect overload and abnormal temperature
- High rigidity with an allowable overload of 500%
- Easy connection between sensor and cable

Specifications

Items		SFT200D	SFT1KN	SFT4KN	SFT7KN	SFT10KNA
Rated load	F_x , F_y	200N	700N	3,500N	4,500N	6,500N
	F_z	200N	1,000N	4,000N	7,000N	10,000N
	M_x , M_y	4Nm	30Nm	150Nm	400Nm	600Nm
	M_z	4Nm	30Nm	150Nm	400Nm	600Nm
Measurement resolution	F_x , F_y	< 0.04N	< 0.2N	< 1.0N	< 1.5N	< 2.5N
	F_z	< 0.05N	< 0.2N	< 1.0N	< 2.0N	< 2.5N
	M_x , M_y	< 0.001Nm	< 0.005Nm	< 0.03Nm	< 0.1Nm	< 0.1Nm
	M_z	< 0.002Nm	< 0.01Nm	< 0.06Nm	< 0.1Nm	< 0.2Nm
Supply voltage	DC +5V (or +24V)					
Power consumption	200mA (150mA)					
Output method	USB2.0, RS-422, Ethernet, CAN2.0A					
Responsiveness	1kHz					
Non-linearity	$\pm 3\%$ F.S.					$\pm 1\%$ F.S.
Other axis sensitivity	$\pm 5\%$ F.S.					$\pm 2\%$ F.S.
Allowable overload	500%					
Operating temperature	0 to +50 degrees C					
Humidity range	15%R.H. to 85%R.H. w/o condensation					

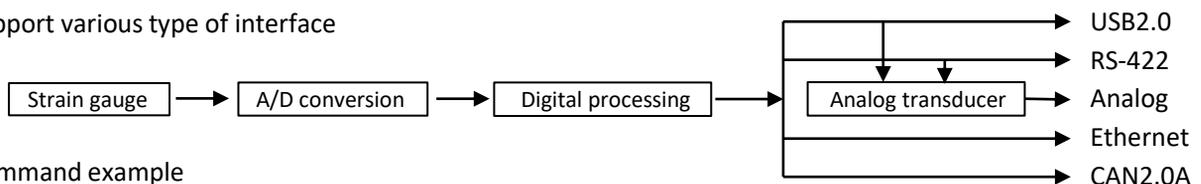
* Please feel free to contact us if any requirement.

Cable

- Standard length is 2m. If you need less or more, please feel free to contact us.

Interface specification

- Support various type of interface

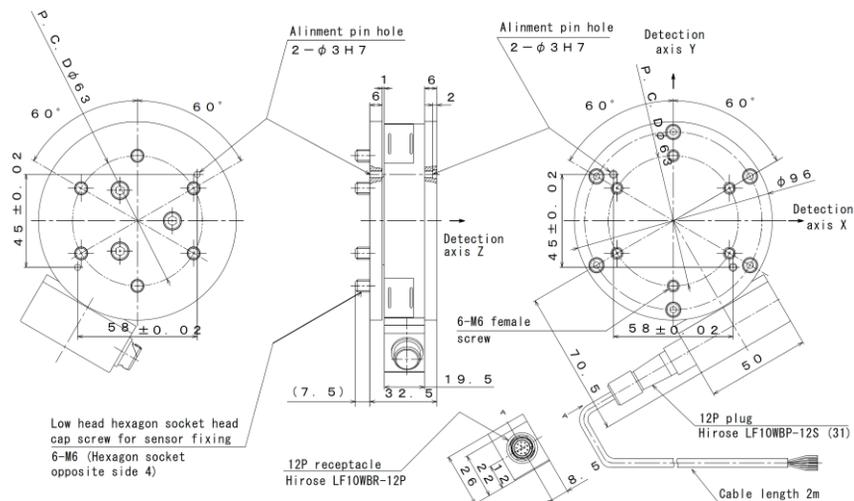


- Command example

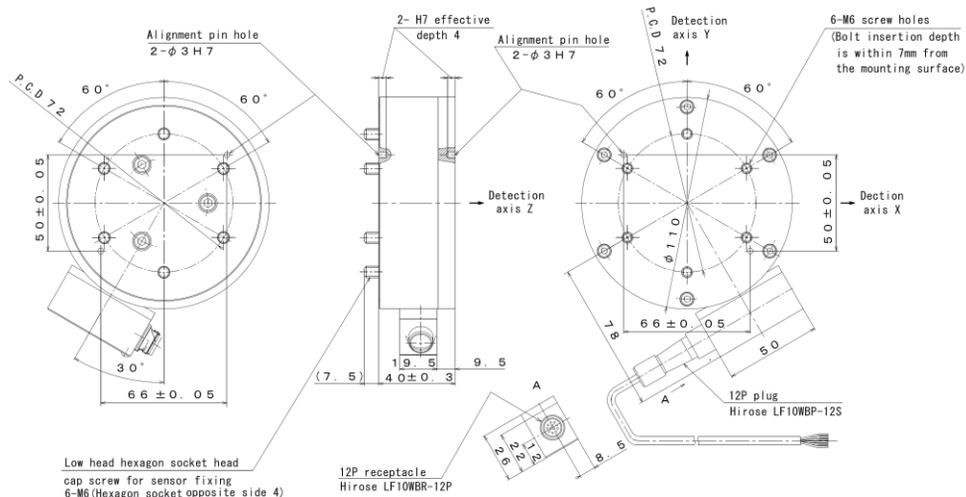
- Setting of single or sequential output
- Low-pass filter cutoff frequency setting
- Zero-reset setting
- On/off setting of status info
- Overload threshold setting
- IP address change (for Ethernet)

Dimensions

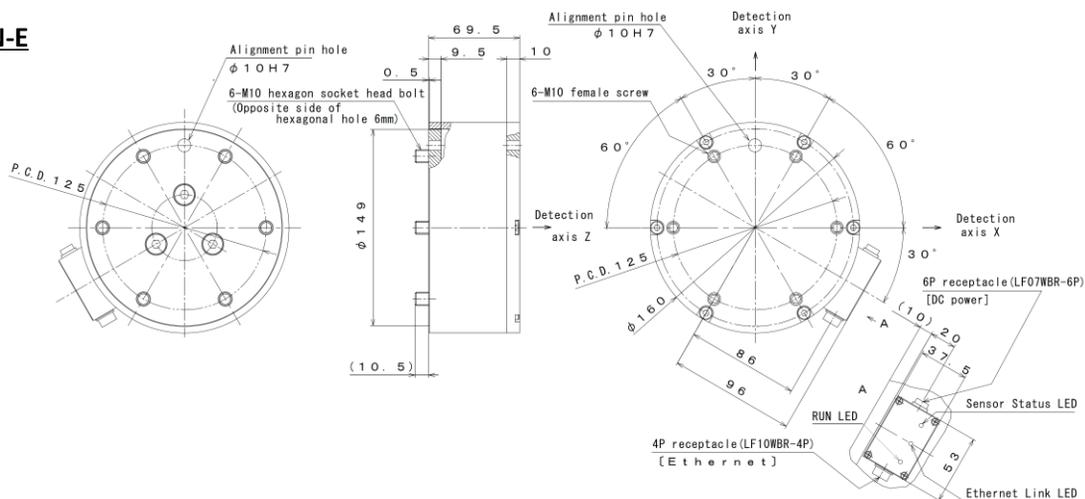
SFT200D-R



SFT1KN-R



SFT7KN-E



P/N	Diameter D[mm]	Height H[mm]	Mounting pitch P1[mm]	Mounting screws Size N	Weight [g]
SFT200D	96	32.5	63	M6	500
SFT1KN	110	40.0	72	M6	810
SFT4KN	145	57.0	98	M8	1,800
SFT7KN	160	69.5	125	M10	3,080
SFT10KNA	180	69.5	125	M10	3,380



SFT3KC



SFT200FT

Features

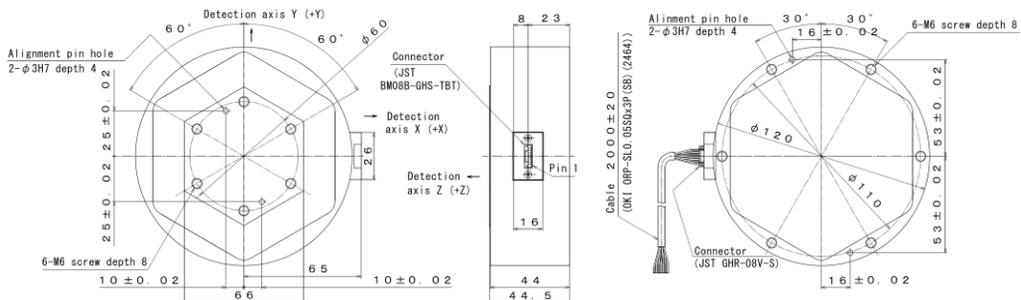
- Small size and moment strengthening
- Simultaneously detects force 3-axis (Fx, Fy, Fz) and moment (Mx, My, Mz)
- High responsiveness of 1kHz that captures quick changes
- Built-in amplifier and microcomputer for load measurement
- Support RS-422 interface
- Built-in low-pass filter function
- Possible to detect overload and abnormal temperature
- Easy connection between sensor and cable
- Optimal form for collaborative robots

Specifications

Items	SFT1KC	SFT3KC	SFT200FT	
Rated load	Fx, Fy	700N	1,500N	200N
	Fz	1,000N	3,000N	200N
	Mx, My, Mz	40Nm	150Nm	20Nm
Measure-ment resolution	Fx, Fy	< 0.4N	< 0.5N	< 0.1N
	Fz	< 0.4N	< 1.0N	< 0.1N
	Mx, My, Mz	< 0.01Nm	< 0.03Nm	< 0.01Nm
Power supply voltage	DC +5V		DC +24V	
Power consumption	250mA		200mA	
Output method	RS-422			
Responsiveness	1kHz			
Non-linearity	± 3%F.S.	± 1%F.S.	± 3%F.S.	
Other axis sensitivity	± 5%F.S.	± 3%F.S.	± 5%F.S.	
Allowable overload	500%			
Operating temperature	0 to +50 degrees C			
Humidity range	15%R.H. to 85%R.H. w/o condensation			

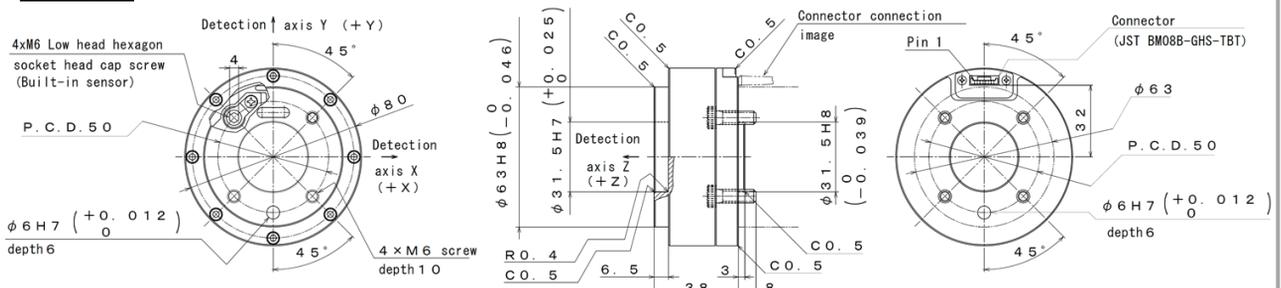
Dimensions

SFT3KC



P/N	Diameter D[mm]	Height H[mm]	Mounting pitch P1[mm]	Mounting pitch P2[mm]	Mounting screws Size N	Weight [g]
SFT1KC	80	30.5	37	73	M4	300
SFT3KC	120	44.5	60	110	M6	980

SFT200FT



P/N	Diameter D[mm]	Height H[mm]	Mounting pitch P1[mm]	Mounting screws Size N	Weight [g]
SFT200FT	80	38	50	M6	420



SFT200H



SFT1KI

Features

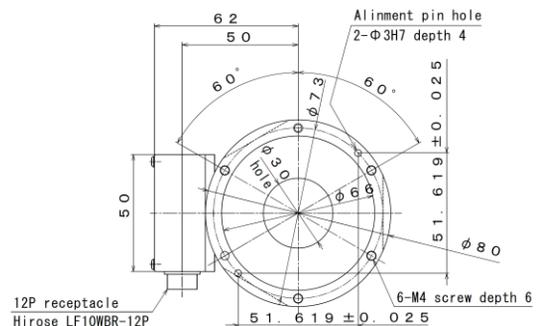
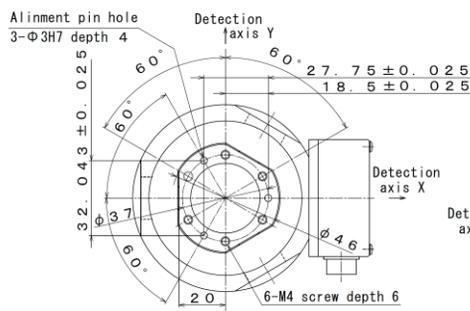
- Hollow structure
- Simultaneously detects force 3-axis (Fx, Fy, Fz) and moment (Mx, My, Mz)
- Possible to measure static and dynamic operation
- High responsiveness of 1kHz that captures quick changes
- Built-in amplifier and microcomputer for load measurement
- Support RS-422 interface
- Built-in low-pass filter function
- Possible to detect overload and abnormal temperature
- Easy connection between sensor and cable (SFT200H)
- Cable can be pulled out from hollow part (SFT200I and SFT1KI)

Specifications

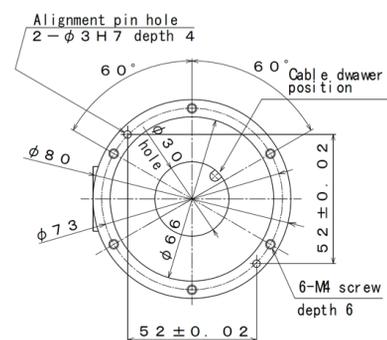
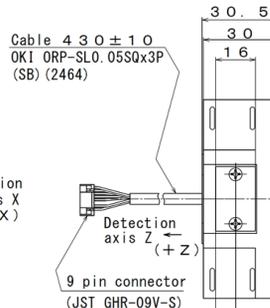
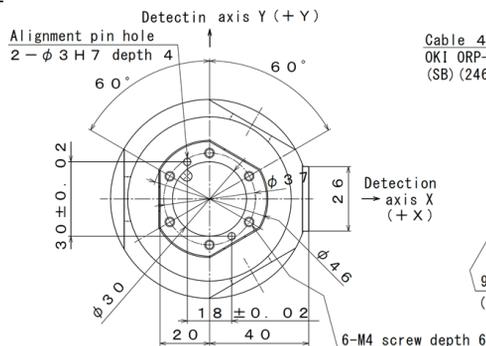
Items	SFT200H/200I	SFT1KI
Rated load	Fx, Fy	200N
	Fz	200N
	Mx, My, Mz	4Nm
Measurement resolution	Fx, Fy	< 0.05N
	Fz	< 0.05N
	Mx, My	< 0.001Nm
	Mz	< 0.002Nm
Power supply voltage	DC +24V	DC +5V
Power consumption	150mA	250mA
Output method	RS-422	
Responsiveness	1kHz	
Non-linearity	± 3%F.S.	± 1%F.S.
Other axis sensitivity	± 5%F.S.	± 3%F.S.
Allowable overload	500%	
Operating temperature	0 to +50 degrees C	
Humidity range	15%R.H. to 85%R.H. w/o condensation	

Dimensions

SFT200H



SFT1KI



P/N	Diameter D[mm]	Hollow diameter D[mm]	Height H[mm]	Mounting pitch P1[mm]	Mounting pitch P2[mm]	Mounting screws Size N	Weight [g]
SFT200H/I	80	30	24.5	37	73	M4	220
SFT1KI	90	30	30.5	37	73	M4	360



SFS050

Features

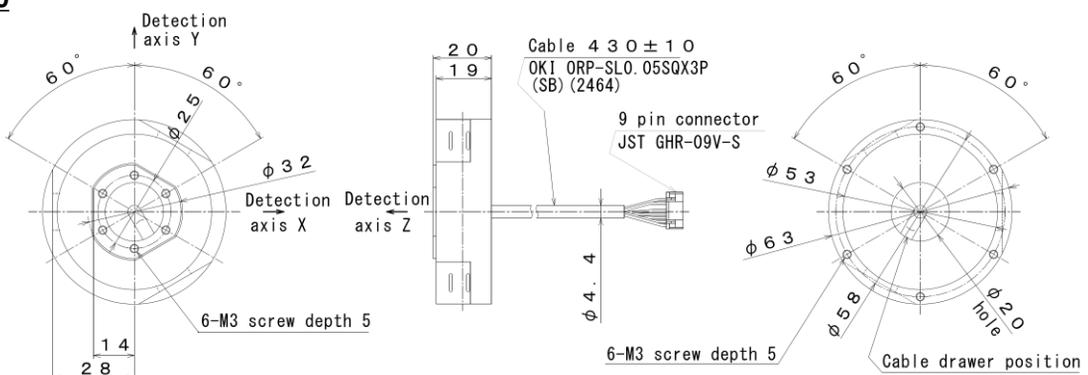
- Hollow structure
- Simultaneously detects force 3-axis (Fx, Fy, Fz)
- Possible to measure static and dynamic operation
- High responsiveness of 1kHz that captures quick changes
- Built-in amplifier and microcomputer for load measurement
- Support RS-422 interface
- Built-in low-pass filter function
- Possible to detect overload and abnormal temperature
- Guarantee 500% allowable overload (for Moment: 10Nm)

Specifications

Items		SFS050
Rated load	Fx, Fy, Fz	50N
Measurement resolution	Fx, Fy	< 0.02N
	Fz	< 0.02N
Power supply voltage		DC +5V
Power consumption		200mA
Output method		RS-422
Responsiveness		1kHz
Non-linearity		± 3%F.S.
Other axis sensitivity		± 5%F.S.
Allowable overload		500%, (for Moment : 10Nm)
Operating temperature		0 to +50 degrees C
Humidity range		15%R.H. to 85%R.H. w/o condensation

Dimensions

SFS050



P/N	Diameter D[mm]	Hollow diameter D[mm]	Height H[mm]	Mounting pitch P1[mm]	Mounting pitch P2[mm]	Mounting screws Size N	Weight [g]
SFS050	63	20	20	25	58	M3	115



USB conversion cable

Features

- Change to USB signals from RS-422
- USB bus power (As for +24V product, external +24V is required)
- Length of cable is 2m



Analog transducer DA-x-SFT x : U (USB I/F), R (RS-422 I/F)

Features

- Change to analog signals from USB or RS-422
- Possible to supply +5V or +24V to sensor
- Support zero-reset function

Specifications

Input signal	USB or RS-422
Output signal	Analog 6ch, ± 10V output (at rated load)
Power supply voltage	DC +24V
Power consumption	300mA
Length of cable	2m
Zero-reset function	Support

Dimensions

DA-U-SFT

