

Axia80-M8 F/T Sensor				Axia80-M20 F/T Sensor					Axia80-M50 F/T Sensor					
Loading Characteristics	Fxy	Fz	Тху	Tz	Loading Characteristics	Fxy	Fz	Тху	Tz	Loading Characteristics	Fxy	Fz	Txy	Tz
Rated Range	± 150 N	± 470 N	±8Nm	±8Nm	Rated Range	± 500 N	± 900 N	± 20 Nm	± 20 Nm	Rated Range	± 1200 N ± 2000 N		± 50 Nm	± 50 Nm
Overload Rating	± 750 N	± 2300 N	±40 Nm	± 40 Nm	Overload Rating	± 2500 N	± 4500 N	± 100 Nm	± 100 Nm	Overload Rating	± 6000 N ± 10000 N ± 29		± 250 Nm	±250 Nm
Effective Resolution	0.04 N	0.04 N	0.002 Nm	0.002 Nm	Effective Resolution	0.1 N	0.1 N	0.005 Nm	0.005 Nm	Effective Resolution	0.4 N	0.4 N	0.01	0.01
Stiffness (Calculated)				Stiffness (Calculated)				Stiffness (Calculated)						
X-Axis & Y-Axis Forces (Kx, Ky)	1.1x10 <sup>7</sup> N/m			X-Axis & Y-Axis Forces (Kx, Ky)	2.7x10 <sup>7</sup> N/m				X-Axis & Y-Axis Forces (Kx, Ky)	8.8x10 <sup>7</sup> N/m				
Z-Axis Force (Kz)	2.0x10 <sup>7</sup> N/m			Z-Axis Force (Kz)	4.1x10 <sup>7</sup> N/m				Z-Axis Force (Kz)	1.2x10 <sup>8</sup> N/m				
X-Axis & Y-Axis Torques (Ktx, Kty)	1.1x10 <sup>4</sup> Nm/rad			X-Axis & Y-Axis Torques (Ktx, Kty)	2.4x10 <sup>4</sup> Nm/rad				X-Axis & Y-Axis Torques (Ktx, Kty)	6.5x10 <sup>4</sup> Nm/rad				
Z-Axis Torque (Ktz)	(tz) 2.3x10 <sup>4</sup> Nm/rad			Z-Axis Torque (Ktz)	4.8x10 <sup>4</sup> Nm/rad				Z-Axis Torque (Ktz)	6.5x10 <sup>4</sup> Nm/rad				
Resonant Frequency (Sensor Only)				Resonant Frequency (Sensor Only)				Resonant Frequency (Sensor Only)						
Fx, Fy, Tz 1500 Hz			Fx, Fy, Tz	2200 Hz			Fx, Fy, Tz	2500 Hz						
Fz, Tx, Ty	1500 Hz			Fz, Tx, Ty	2600 Hz			Fz, Tx, Ty	2500 Hz					
Physical Specifications (Sensor Only)			Physical Specifications (Sensor Only)				Physical Specifications (Sensor Only)							
Center of Mass*	X = -0.01mm	Y = 0.46mm	Z = -12.17mm		Center of Mass*	X = 0.50mm	Y = 0.3mm	Z = -12.31mm	1	Center of Mass*	X = -0.02mm	Y = 0.69mm	Z = -11.11mm	
Material Aluminum			Material	Aluminum				Material	Stainless Steel					
Weight 0.28 kg			Weight	0.3kg			Weight	0.68 kg						

Operational Specifications (All Sensor Models)					
Communication	RS422				
Supply Voltage	12-30V DC				
Maximum Power Consumption	1.7W				
System Resolution	16 Bit				
Max Data Rate	4kHz				
Operating Temperature	0-65°C				
IP Rating	IP64				

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



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3rd ANGLE PROJECTION

DRAWN BY: V. Vavilikolane, 6/6/2023 CHECKED BY: N.Damiano, 6/12/2023

Customer Drawing For Fanuc Kit Axia80

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\*Measurements taken from Sensing Reference Frame Origin

		Interface Plate # /	Boss Size	Recess Size	Robot Bolt Circle		Robot Fastener	Sensor Frame Z+	
	Name	Two Plate Kit	mm (d X h)	mm (d X h)	mm	Robot Fastener	Torque Nm	Offset mm	Material
~	9105-FTKIT-FANUC-BC31.5-AXIA80-M8	9105-IP-2387 / N	20 X 3	-	31.5	7X M5	6	46.4	Aluminum
Σ̈́	9105-FTKIT-FANUC-BC40-AXIA80-M8	9105-IP-2444 / N	25 X 3	-	40	7X M6	10	46.4	Aluminum
ia80.	9105-FTKIT-FANUC-BC50-AXIA80-M8	9105-IP-2355 / N	31.5 X 3	-	50	7X M6	10	46.4	Aluminum
Axia	9105-FTKIT-FANUC-BC56-AXIA80-M8	9105-IP-2495 / Y	-	62 X 2	56	14X M4	3	59.4	Aluminum
4	9105-FTKIT-FANUC-BC64-AXIA80-M8	9105-IP-2369 / Y	-	71 X 2	64	14X M4	3	59.4	Aluminum
0	9105-FTKIT-FANUC-BC31.5-AXIA80-M20	9105-IP-2387 / N	20 X 3	-	31.5	7X M5	6	46.4	Aluminum
a80-M2	9105-FTKIT-FANUC-BC40-AXIA80-M20	9105-IP-2444 / N	25 X 3	-	40	7X M6	10	46.4	Aluminum
	9105-FTKIT-FANUC-BC50-AXIA80-M20	9105-IP-2355 / N	31.5 X 3	-	50	7X M6	10	46.4	Aluminum
Axia	9105-FTKIT-FANUC-BC56-AXIA80-M20	9105-IP-2495 / Y	-	62 X 2	56	14X M4	3	59.4	Aluminum
₹.	9105-FTKIT-FANUC-BC64-AXIA80-M20	9105-IP-2369 / Y	-	71 X 2	64	14X M4	3	59.4	Aluminum
ia 80-M50	9105-FTKIT-FANUC-BC31.5-AXIA80-M50	9105-IP-2388 / N	20 X 3	-	31.5	7X M5	6	46.4	Stainless Steel
	9105-FTKIT-FANUC-BC40-AXIA80-M50	9105-IP-2371 / N	25 X 3	-	40	7X M6	10	46.4	Stainless Steel
	9105-FTKIT-FANUC-BC56-AXIA80-M50	9105-IP-2496 / Y	-	62 X 2	56	14X M4	3	59.4	Stainless Steel
Axi	9105-FTKIT-FANUC-BC64-AXIA80-M50	9105-IP-2380 / Y	-	71 X 2	64	14X M4	3	59.4	Stainless Steel

## Notes:

All kits will come with 6X M5 Sensor Fasteners. These should be torqued to 6Nm.
All two plate kits come with an additional IP kit.
The two plate kits will include an additional 7X M5 Fasteners. These should be torqued to 6Nm.

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3rd ANGLE PROJECTION

DRAWN BY: V. Vavilikolane, 6/6/2023 CHECKED BY: N.Damiano, 6/12/2023

Customer Drawing For Fanuc Kit Axia80

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