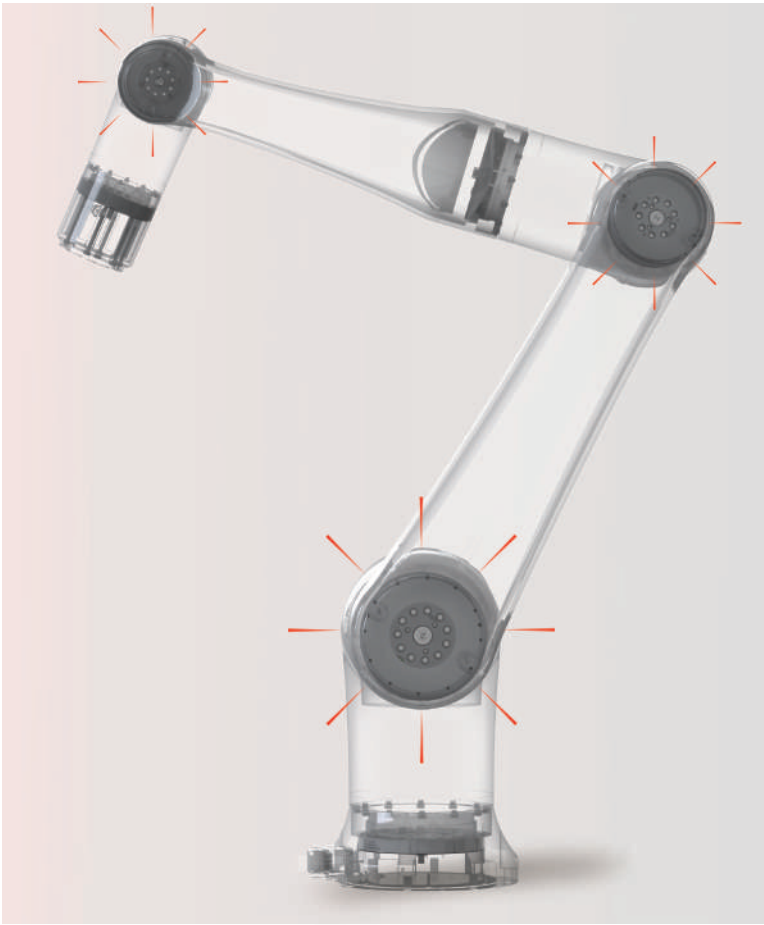
High-Stiffness, Ultra-Thin Design Joint Torque Sensor



Ultra-thin Joint Torque Sensor (ATSB)

- Specialized design for **robotic joint actuators**
- Performs critical functions for **sensitive collision detection and torque control**
- **Exceptional adaptability** to temperature and environmental changes
- **Multi-axis sensing** with high environmental resistance for **precise torque measurement**

APPLICATION

- Collaborative robot (ex. Rainbow Robotics, Neuromeka, etc)
- Wearable robot
- Medical device
- Multi-function rehabilitation robot

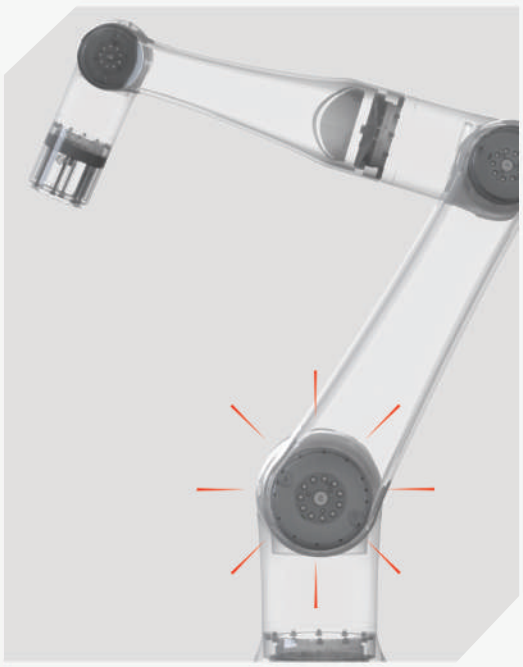
Index	Unit	ATSB50	ATSB100	ATSB200	ATSB400
Dimensions	mm	D84 * H14	D100 * H16	D100 * H18	D120 * H20
Norminal torque range *(Tn)*	N	50	100	200	400
Overload(related *Tn*)	%	300	300	300	300
Resolution	Nm	0.03	0.05	0.1	0.2
Sample rate	Hz	1,000	1,000	1,000	1,000
Interfaces			CAN (2.0 A/B)		

Why AIDIN's F/T Sensor?

AIDIN ROBOTICS' **F/T sensors** measure multi-axis forces and torques,
adapting to various environments and temperatures for maximum convenience and efficiency

High-sensitivity & precision

Durability & long-term stability

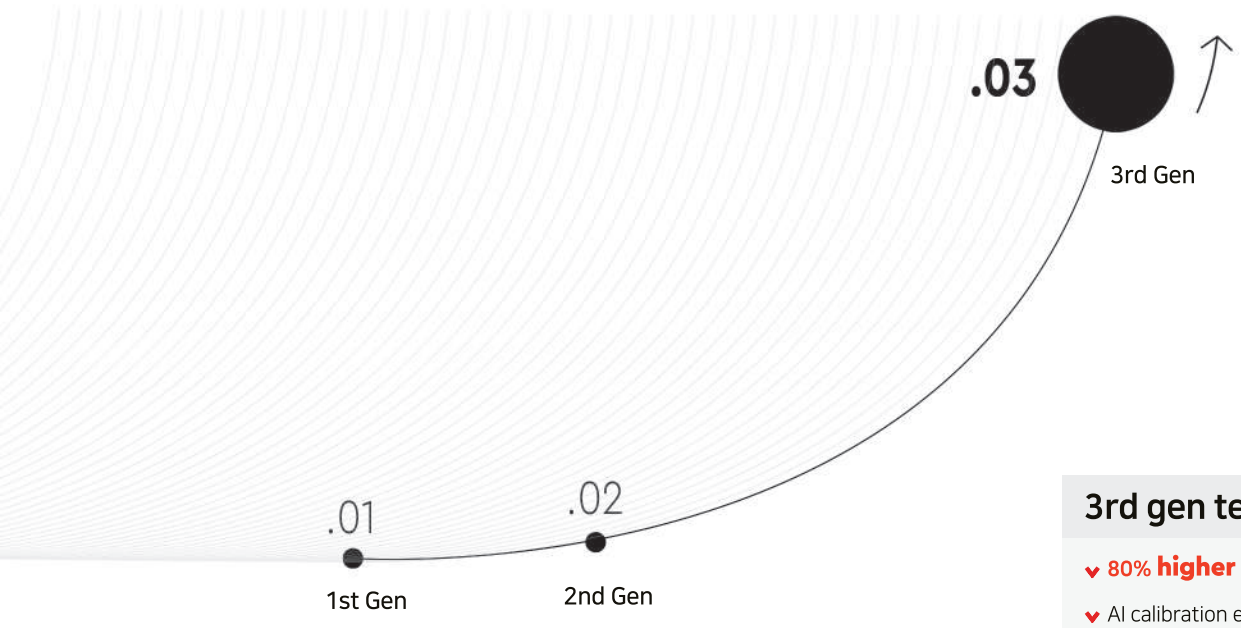


Miniaturization

Competitive price

All In One

No additional equipment



Basic capacitance measurement
- Weakness for external noise
- Structure complex for F/T measurement
- Vulnerable to temperature changes
- Mass production challenges

Overcoming capacitance limits
- External noise immunity secured
- Next-gen fringe effect boosts sensitivity 10x
- Temperature compensation
- Production capability ensured

3rd gen tech upgrade

- 80% **higher sensitivity** than Gen 2
- AI calibration enhances **accuracy, repeatability, and linearity**
- **Improved** mass production capability
- **Better** stability against **temperature & humidity**

Solution Introduction

Homepage

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