

Examples of MEMS Industrialization by Tohoku Univ. – industry Collaboration

Type	Application	No.	Catheter (cm)	Length	Diameter	Monitor	Note
PH-21	pH measurement in muscle etc.	PH-2135	310	1.1	KR-5010	With reference	
PH-31	pH measurement in esophagus and stomach	PH-3118 (Adult) PH-3165 (Infant)	1000 800	2.4	KR-5010	With reference and feed port	
PH-69	pH measurement in mouth	PH-6919	100	1.8	KR-5010	Without reference	
PH-89	Reference electrode for PH-60	PH-8905	50	1.1	KR-5010		
CO-19	PCO ₂ measurement in muscle etc.	CO-1935	350	2.9	KR-5010	With reference	

Catheter pH, PCO₂ monitor (Kurare, Nihon Kohden)

Portable pH sensor (Shindengen)

Instrument to detect H. pylori (Nihon Kohden)

Electrostatically levitated rotational (Tokyo Keiki)

Yaw rate-Accelerometer (Toyota)

2-axes optical scanner (Nippon signal)

Integrated capacitive pressure sensor (JTEKT)

Diaphragm vacuum gauge (Canon ANELVA)

Silicon microphone (NHK, Panasonic)

LTCC with electrical feedthrough for MEMS packaging (Nikko)

Palm-top silent gas turbine engine power generator for robot (IHI)

MEMS switch for LSI tester (Advantest)