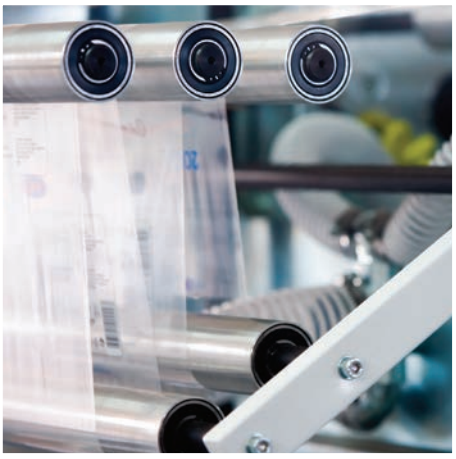
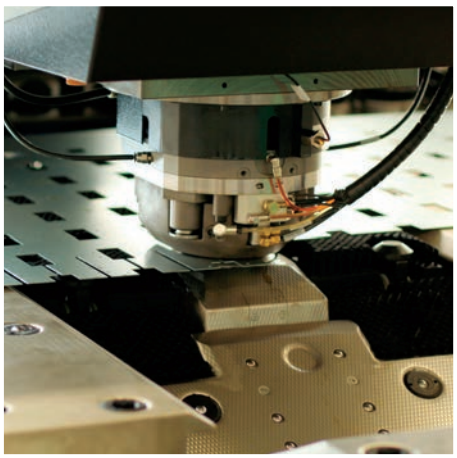
KAMAN

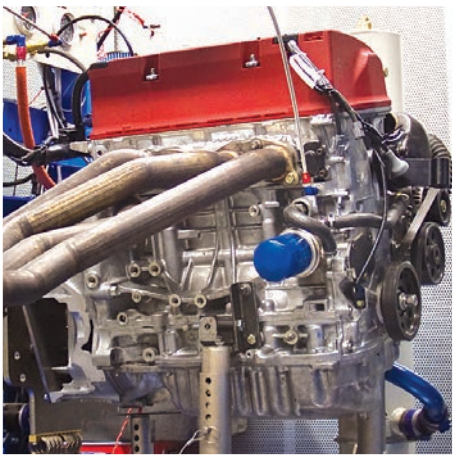
Precision Products / Measuring

Sensor Family Data Sheet

Advanced family of high-precision position sensors using Eddy Current Technology







CE

800.552.6267
measuring@kaman.com

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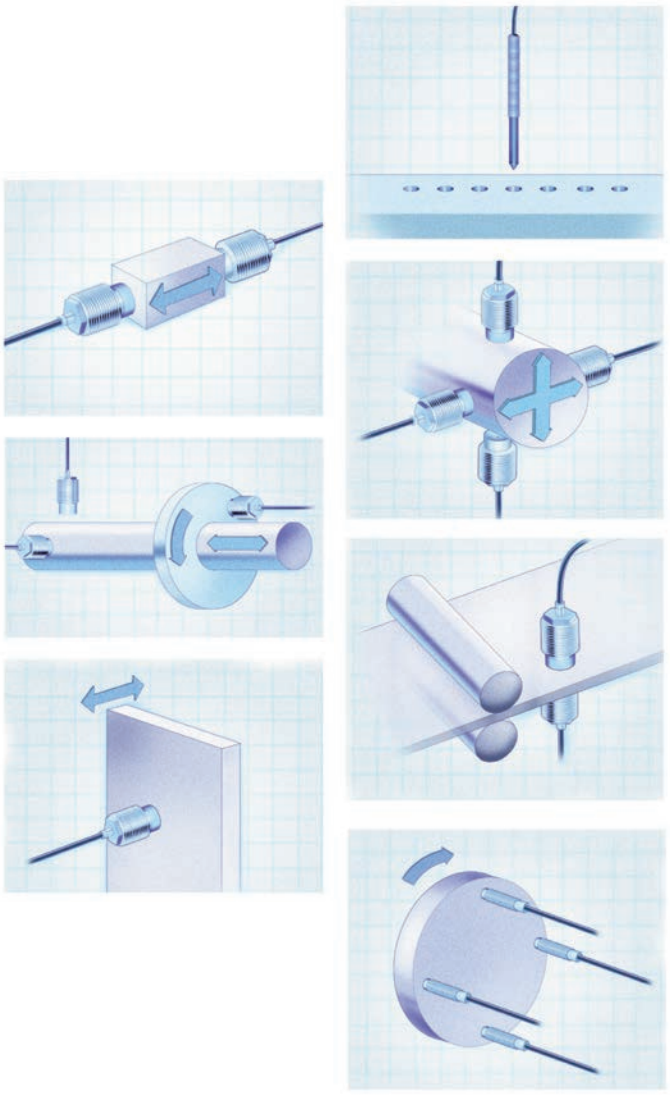
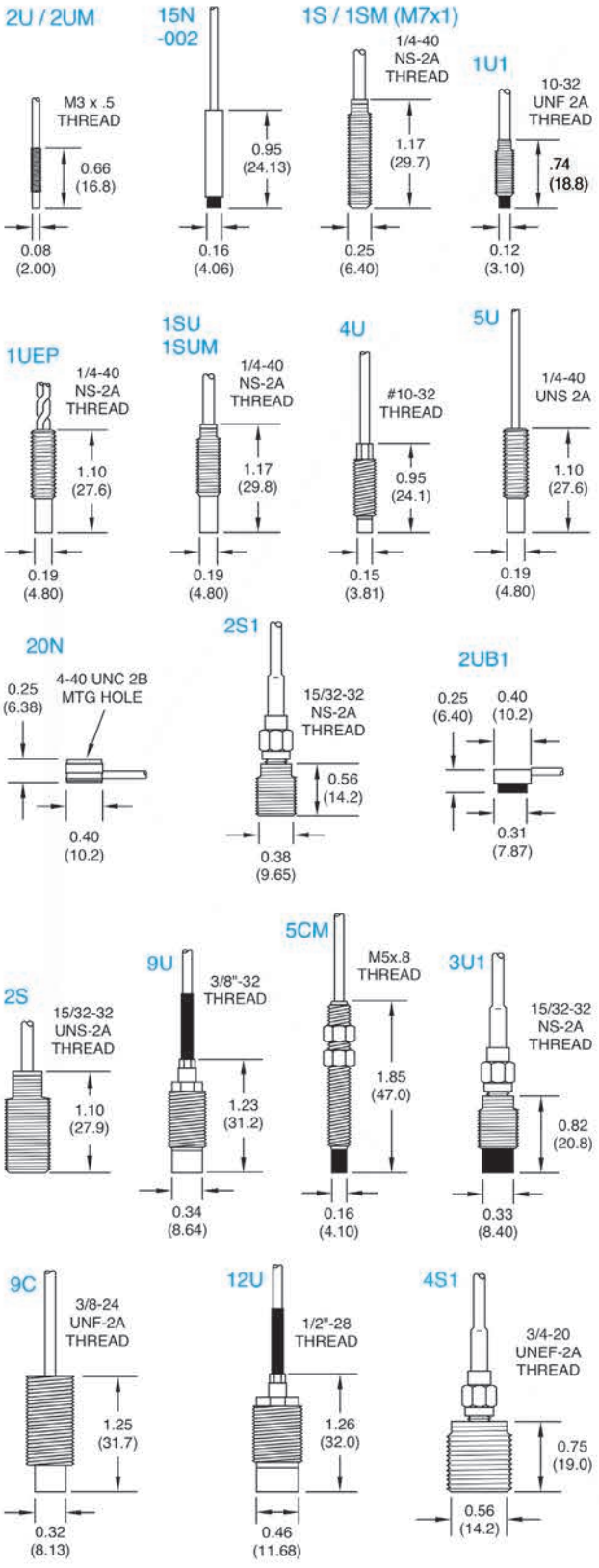
Let us help you choose the best sensor, conditioning electronics and calibration for your application.



Sensors (shown at 50%)

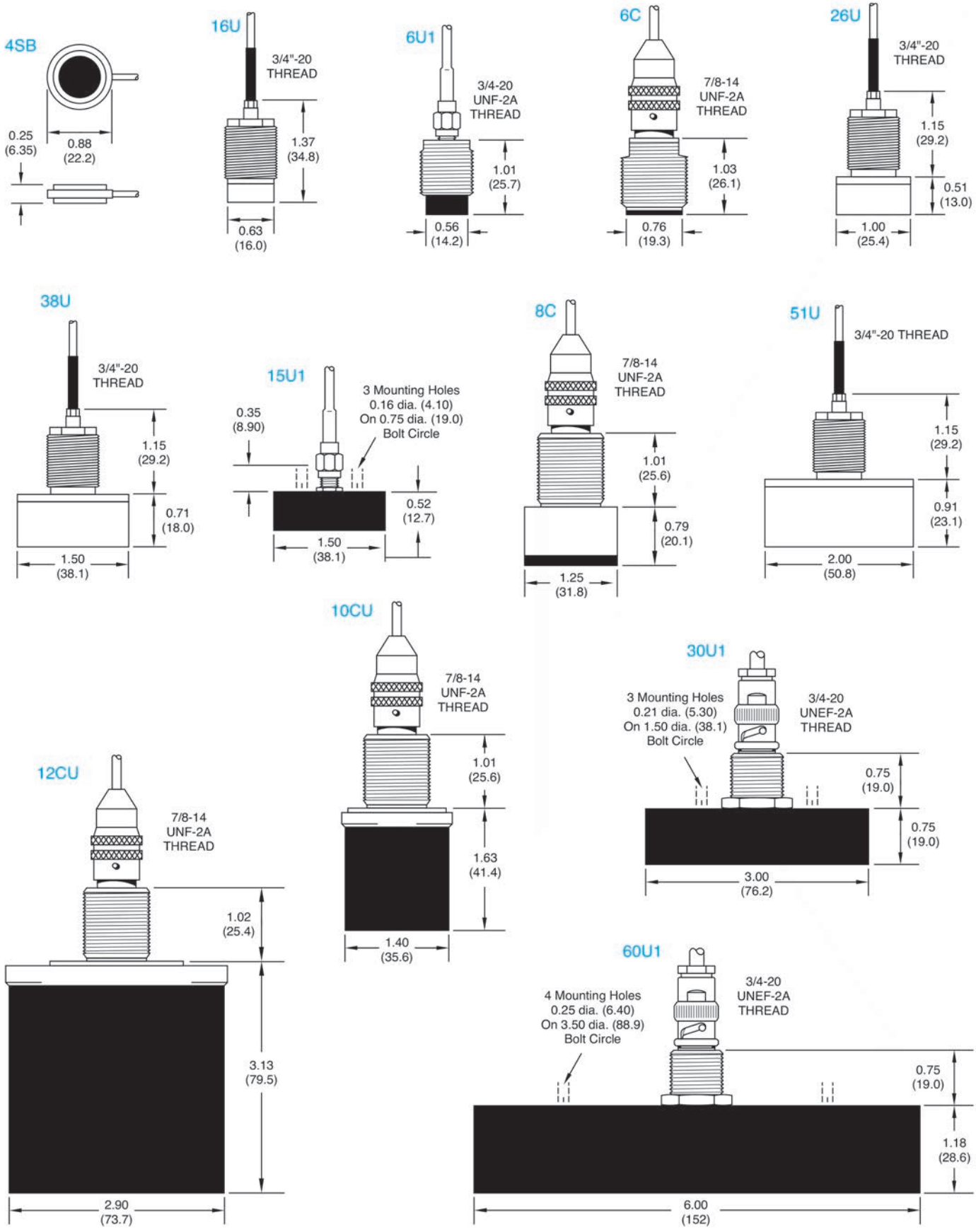
Note: All dimensions shown in inches (mm).



Support available to help solve your most challenging application and technical questions.

Sensors (shown at 50%)

Note: All dimensions shown in inches (mm).



Typical Specifications

Sensor	Sensor Range mil	Sensor Range mm	Target Material non-mag	Target Material magnetic	Static Resolution µ in	Static Resolution µ m	Shielded or Unshielded S or U	Standard Cable Length (ft)	Notes	KD-2306 KDM-8206 OEM-2306	KD-2446	KD-5100 DIT-5200L KD-5400	SMT-9700	digiVIT
2UM	20	0.5	-	√	4	0.1	U	6.6	1, 5, 9	√	-	-	-	-
2U	20	0.5	√	-	-	-	U	6.6	1, 5, 9	√	√	-	√	√
15N	35	0.9	√	-	-	-	U	5	1, 9	-	-	√	√	-
1S	40	1.0	√	-	4	0.1	S	10	1, 9	√	-	-	-	-
1SM	40	1.0	-	√	4	0.1	S	10	1, 5, 9	√	-	-	-	-
1U1	40	1.0	√	-	4	0.1	U	10	1, 9	√	-	-	√	-
1UEP	40	1.0	-	√	4	0.1	U	10	2, 9	√	-	-	-	-
1SU	50	1.3	√	-	5	0.1	U	10	1	√	-	-	-	-
1SUM	50	1.3	-	√	5	0.1	U	10	1, 9	√	-	-	-	-
4U	50	1.3	√	-	-	-	U	6.6	1, 9	-	-	-	√	√
5U	50	1.3	√	-	-	-	U	6.6	1, 5, 8, 9	√	-	-	√	-
20N	75	1.9	√	-	-	-	U	5	1, 9	-	-	√	√	-
2S1	80	2.0	√	√	8	0.2	S	10	1, 10	√	-	-	-	-
2UB1	80	2.0	√	√	8	0.2	U	10	1, 9	√	-	-	-	-
2S	100	2.5	√	√	10	0.3	S	10	1, 5, 9	√	-	-	-	-
9U	160	4.0	√	-	-	-	U	6.6	2, 8, 9	√	-	-	√	√
5CM	115	2.9	√	√	10	0.3	U	10	2, 9	-	√	-	-	-
3U1	120	3.0	√	-	12	0.3	U	10	1, 10	√	-	-	√	-
9C	150	3.8	√	√	-	-	U	9	2, 9	-	√	-	-	-
12U	200	5.0	√	√	-	-	U	6.6	2, 8, 9	√	√	-	√	√
4S1	160	4.0	√	√	16	0.4	S	10	1, 10	√	-	-	-	-
4SB	160	4.0	√	√	16	0.4	S	10	1, 9	√	-	-	-	-
16U	320	8.0	√	√	-	-	U	6.6	2, 8, 9	√	√	-	√	√
6U1	240	6.0	√	√	24	0.6	U	10	1, 10	√	-	-	√	-
6C	250	6.4	√	√	25	0.6	S	15	1, 5, 10	√	-	-	-	-
26U	500	12.0	√	√	-	-	U	6.6	2, 8, 9	√	√	-	√	√
38U	750	20.0	√	√	-	-	U	6.6	2, 8, 9	√	√	-	√	√
8C	500	12.7	√	√	50	1.3	S	15	1, 5, 10	√	-	-	-	-
15U1	600	15.0	√	√	60	1.5	U	10	1, 10	√	-	-	√	-
51U	1,000	25.0	√	√	-	-	U	6.6	2, 8, 9	√	√	-	√	√
10CU	1,000	25.4	√	√	100	2.5	U	15	1, 10	√	-	-	-	-
30U1	1,200	30.0	√	√	120	3.0	U	10	1, 10	√	-	-	√	-
12CU	2,000	50.8	√	√	200	5.0	U	15	1, 10	√	-	-	-	-
60U1	2,400	60.0	√	√	240	6.0	U	10	1, 10	√	-	-	√	√

Notes:
1. Temperature Range 1: -67°F to +220°F (-55°C to +105°C)
2. Temperature Range 2: -320°F to +400°F (-196°C to +204°C)
3. Resolution is dependent upon electronics selected. Contact Kaman where value is not shown.
4. Most sensor ranges may be extended up to 50%, but performance will vary. Contact Kaman.
5. Moderate Temperature (200°C) versions available.
6. Measuring Range can vary depending on signal conditioner.
7. Other sensors/signal conditioner combinations available.
8. IP67 type versions available on request.
9. Integral Cable
10. Removable Cable

Signal Conditioning Electronics

KD-2306

- Single channel unit for general purpose applications
- Linear analog voltage and current outputs
- DIN Rail packaging

KDM-8206

- Multi-channel measuring modules for industrial applications
- Linear analog voltage and current outputs
- 3U/7T Eurocard packaging
- Rack, and NEMA enclosures available

KD-2446

- Low cost single channel unit for general purpose applications
- Analog voltage output
- DIN Rail packaging

digiVIT

- Self-configuring single channel unit with display
- For general purpose and industrial applications
- Microprocessor controlled
- DIN Rail packaging

KD-5100

- Dual channel Differential analog unit
- Constructed to Mil quality requirements for Aerospace applications

DIT-5200L

- Dual channel Differential analog unit
- For commercial applications requiring high resolution

KD-5400

- Dual channel Differential system for high resolution commercial applications
- SPI, analog voltage, or 24 bit ADC output

SMT-9700

- High Resolution OEM analog unit perfect for higher volume
- Uniquely configured for specific applications
- 1, 2, or 3 channel configurations

See individual Data Sheets for detailed performance specifications.

Why Kaman?

Experience. Kaman Precision Products Measuring Division has over 45 years of experience with non-contact position measurement techniques. We bring you the best in advanced sensor technology and signal conditioning electronics.

Custom systems. We specialize in custom solutions to difficult problems, and we'll work with you to develop a system for your particular application.

Advanced technology. Kaman's sensors are based on eddy current technology, providing measurements that are:

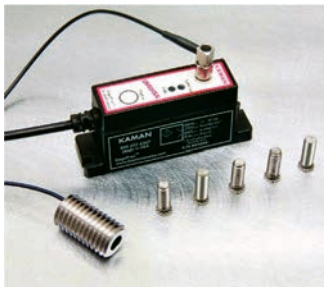
- Stable and repeatable;
- Ideal for conductive materials;
- Unaffected by most contaminants;
- Resistant to harsh environments.

Specialized Sensors Systems:

Extreme Environment

- For when no other sensor will survive and perform
- Temperatures from -320°F to +1,000°F (-196°C to +538°C)
- Pressures to 5,000 psi
- Radiation & chemically resistant sensors
- Eurocard & NEMA electronics packaging

ThreadChecker



- Checks thread presence/ absence or discriminates between any two conditions
- Microprocessor controlled
- DIN Rail and panel mounting

Accessories:

Ceramic Calibration Spacers

P-3600D24 Power Supply

Micrometer Calibration Fixture

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