

Industry update Test & Measurement Q2 2022

Selected M&A highlights

- Jun 22 **Bureau Veritas** acquired **Advanced Testing Laboratory**, a US based provider of analytical chemistry and microbiology testing solutions for health & beauty, food & beverage and medical device industries
- Jun 22 **EQT Partners** acquired **SPT Labtech**, UK based company engaged in design and development of automated instrumentation and consumables for life science research
- Jun 22 **Humanetics Innovative Solutions**, a **Bridgepoint** investment acquired **mg-sensor**, a Germany based specialist engaged in the design and development of sensors and calibration systems
- Jun 22 **Trescal** acquired **Cincinnati Precision Instruments**, a US based full line sales and calibration facility of precision measuring equipment
- Jun 22 **Normec Group** acquired a majority stake in **Verifavia**, a France based provider of environmental verification, certification and auditing services for aviation and maritime industry
- Jun 22 **Transcat** acquired **Alliance Calibration**, a US based provider of calibration services, for **USD 4.7m**
- Jun 22 **Clayton, Dubilier & Rice** agreed to acquire a 51% stake in **Roper Technologies' Process Technology segment** and the industrial businesses within its measurement and analytical solutions segment, for **USD 2.6bn** (19.6x EBITDA)

- May 22 **Judges Scientific** acquired **Geotek**, a UK based manufacturer of instruments used to measure and log geological core characteristics, for **GBP 80m**
- May 22 **Element Materials Technology Group** acquired **Energy Assurance**, a US based provider of cell and battery testing services to aerospace, agriculture, energy, defence and other industries
- May 22 **Spectris** acquired **Dytran Instruments**, a US based provider of piezo-electric and MEMS-based accelerometers and sensors for measuring force, pressure and vibration for **USD 82m** (15.8x EBITDA)
- May 22 **Construction Testing Solutions** acquired **GT Certification**, a UK based provider of concrete testing and force calibration services to the construction industry
- May 22 **Dwyer Instruments**, an **Arcline** Investment, acquired **OMEGA Engineering**, a US based provider of specialist sensors via an omni-channel distribution platform, for **USD 525m** (20.4x EBITDA)
- May 22 **Addtech** acquired **C.K. Environment**, a Denmark based provider of instruments to measure and analyse gases, liquids, particles, humidity and temperature
- Apr 22 **Xenon Private Equity** acquired **Microtest**, an Italy based designer and manufacturer of semiconductor testing equipment including humidity, pressure and temperature sensors
- Apr 22 **Sentinel Capital Partners** acquired **SPL**, a US based provider of hydrocarbon & lubricant testing services to energy markets

Public company valuations

Sensors

Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue			EV/EBITDA			EV/EBIT			2 Year CAGR 2021-2023
							2021	2022	2023	2021	2022	2023	2021	2022	2023	
Amphenol Corporation		Dec-21	31,637	2,764	34,460	1.1x	4.3x 8,032	3.5x 9,973	3.3x 10,480	17.4x 1,981	14.1x 2,441	13.2x 2,613	21.1x 1,635	17.1x 2,013	16.1x 2,143	14% 15%
ams-OSRAM		Dec-21	1,935	1,557	3,471	1.9x	0.8x 4,231	0.8x 4,234	0.8x 4,126	5.2x 672	4.3x 809	3.8x 906	18.8x 185	10.6x 329	9.2x 378	n/a 16%
CTS Corporation		Dec-21	899	(38)	861	n/a	2.3x 379	1.8x 476	1.7x 511	11.1x 78	7.6x 113	7.2x 120	15.9x 54	10.1x 85	9.5x 91	16% 24%
discoverIE Group plc		Mar-22	593	51	644	0.9x	1.8x 360	1.6x 396	1.6x 414	13.0x 49	11.7x 55	11.1x 58	25.5x 25	16.1x 40	14.0x 46	7% 8%
Keyence Corporation		Mar-22	68,120	(6,399)	61,721	n/a	n/a 4,511	n/a 5,061	n/a 5,590	24.5x 2,521	21.6x 2,862	19.5x 3,169	20.8x 2,962	22.0x 2,803	19.8x 3,111	11% 12%
Littelfuse, Inc.		Jan-22	5,172	141	5,313	0.3x	2.9x 1,824	2.5x 2,140	2.3x 2,270	11.1x 480	10.3x 514	10.5x 507	13.3x 400	12.9x 413	13.6x 392	12% 3%
Methode Electronics, Inc.		Apr-22	1,168	47	1,221	0.3x	1.3x 907	1.3x 971	1.2x 1,021	8.2x 149	7.8x 156	6.8x 180	12.2x 100	12.2x 100	10.3x 119	6% 10%
Murata Manufacturing Co., Ltd.		Mar-22	28,536	(2,665)	26,197	n/a	2.4x 11,073	2.3x 11,414	2.3x 12,102	7.6x 3,441	7.0x 3,717	6.6x 3,996	15.2x 2,961	10.4x 2,656	9.3x 2,869	5% 8%
Sensata Technologies Holding plc		Dec-21	5,335	2,008	7,343	2.4x	2.6x 2,822	2.1x 3,438	2.0x 3,712	11.0x 670	8.9x 828	7.9x 927	15.2x 483	10.4x 705	9.3x 786	15% 18%
Sensirion Holding AG		Dec-21	1,301	(91)	1,206	n/a	5.2x 233	4.0x 299	3.6x 339	16.9x 71	16.2x 74	15.8x 76	20.2x 60	21.3x 57	20.9x 58	21% 4%
TE Connectivity Ltd.		Sep-21	30,060	2,507	32,648	0.8x	2.9x 11,086	2.5x 13,207	2.3x 14,035	12.0x 2,713	10.1x 3,245	9.4x 3,462	14.6x 2,235	13.3x 2,456	12.2x 2,666	13% 13%
TT Electronics plc		Dec-21	307	103	412	1.7x	0.9x 476	0.8x 524	0.7x 551	9.0x 46	7.0x 59	6.1x 68	11.6x 36	9.5x 43	7.9x 52	8% 22%
Min							0.8x 0.8x	0.8x 0.7x	0.7x 0.5x	5.2x 10%	4.3x 10%	3.8x 12%	8.8x 7%	9.5x 8%	7.9x 10%	5% 3%
Mean							0.8x 0.8x	0.8x 0.7x	0.7x 0.5x	5.2x 10%	4.3x 10%	3.8x 12%	8.8x 7%	9.5x 8%	7.9x 10%	11% 13%
Median							2.5x 2.4x	2.1x 2.1x	2.0x 2.0x	12.2x 11.1x	10.6x 9.5x	9.8x 8.7x	16.5x 15.6x	13.8x 12.5x	12.7x 11.3x	12% 13%
Max							5.2x 5.2x	4.0x 4.0x	3.6x 3.6x	21.6x 24.5x	19.5x 19.5x	19.5x 25.5x	22.0x 22.0x	20.9x 20.9x	21% 24%	

Note: Multiples are based on enterprise value as of 30 June 2022 and historical and forecast sales, EBITDA and EBIT, calendarised to 31 December. "n/a": not meaningful; "n/a": not available. Enterprise Value is adjusted for minority interest, preference equity, pension deficit and investments in associates.

Source: CapIQ

Test & Measurement - Q2 2022 Industry update

Instrumentation – Industrials

Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue			EV/EBITDA			EV/EBIT			2 Year CAGR 2021-2023	
							Revenue (GBPm)	Revenue growth	EBITDA (GBPm)	EBITDA %	EBIT (GBPm)	EBIT %	2021	2022	2023	2021	2022
AMETEK, Inc.	USA	Dec-21	20,882	1,804	22,686	1.2x	5.5x 4,096 23%	4.6x 4,982 22%	4.3x 5,286 6%	18.4x 1,233 30%	15.0x 1,517 30%	14.1x 1,613 31%	23.0x 987 24%	18.7x 1,211 24%	17.3x 1,312 25%	14%	14%
Fortive Corporation	USA	Dec-21	16,041	2,330	18,376	1.9x	4.7x 3,881 14%	3.8x 4,783 23%	3.6x 5,048 6%	18.5x 992 26%	14.9x 1,233 26%	13.8x 1,336 26%	27.4x 670 17%	22.1x 833 17%	19.5x 941 19%	14%	16%
Halma plc	UK	Mar-22	7,603	275	7,870	0.7x	5.3x 1,474 11%	4.8x 1,638 11%	4.5x 1,754 7%	22.3x 352 24%	19.8x 397 24%	18.1x 436 25%	28.8x 273 19%	23.1x 340 21%	20.8x 379 22%	9%	11%
HORIBA, Ltd.	Japan	Dec-21	1,477	(361)	1,117	n/a	0.8x 1,439 8%	0.7x 1,519 6%	0.7x 1,544 2%	4.1x 273 19%	3.7x 301 20%	3.7x 304 20%	5.0x 222 15%	5.0x 224 15%	4.9x 227 15%	4%	6%
Keysight Technologies, Inc.	USA	Oct-21	20,414	97	20,511	0.1x	5.6x 3,657 9%	4.6x 4,422 21%	4.4x 4,664 30%	18.9x 1,088 30%	14.5x 1,411 32%	13.8x 1,490 32%	22.9x 895 24%	16.4x 1,252 28%	15.3x 1,341 29%	13%	17%
MKS Instruments, Inc.	USA	Dec-21	4,701	(21)	4,680	n/a	2.1x 2,178 28%	1.9x 2,477 14%	1.8x 2,626 6%	7.2x 647 30%	6.8x 692 28%	6.4x 729 28%	8.4x 558 26%	7.9x 593 24%	7.1x 660 25%	10%	6%
National Instruments Corporation	USA	Dec-21	3,371	173	3,545	0.6x	3.3x 1,085 15%	2.6x 1,376 27%	2.4x 1,482 8%	19.8x 179 17%	12.2x 291 21%	10.8x 328 22%	32.2x 110 10%	13.1x 270 20%	11.4x 312 21%	17%	35%
Oxford Instruments plc	UK	Mar-22	1,138	(68)	1,071	n/a	3.0x 355 12%	2.8x 378 6%	2.7x 393 4%	14.2x 66 18%	13.1x 75 20%	13.1x 82 21%	21.8x 49 14%	16.9x 63 17%	15.0x 71 18%	5%	12%
Renishaw plc	UK	Jun-21	2,597	(203)	2,375	n/a	3.8x 619 15%	3.5x 682 10%	3.3x 713 9%	13.4x 177 29%	11.2x 212 31%	10.7x 221 31%	16.7x 142 23%	14.1x 168 25%	13.7x 174 24%	7%	12%
Roper Technologies, Inc.	USA	Dec-21	34,398	3,208	37,606	1.6x	8.8x 4,267 20%	7.3x 5,129 20%	6.9x 5,446 6%	22.3x 1,683 39%	18.6x 2,027 40%	17.4x 2,167 40%	31.6x 1,191 28%	26.2x 1,434 28%	23.9x 1,572 29%	13%	13%
Shimadzu Corporation	Japan	Mar-22	7,655	(917)	6,738	n/a	2.6x 2,629 2%	2.5x 2,721 4%	2.4x 2,853 5%	14.1x 478 18%	13.3x 506 19%	12.5x 541 19%	31.6x 450 17%	26.2x 406 15%	23.9x 434 15%	4%	6%
Spectris plc	UK	Dec-21	2,876	(102)	2,796	n/a	2.2x 1,292 (3%)	2.1x 1,341 4%	2.0x 1,396 4%	12.3x 228 18%	10.4x 269 20%	9.6x 290 21%	16.1x 174 13%	12.4x 225 13%	11.5x 244 17%	4%	13%
Min							0.8x	0.7x	0.7x	4.1x	3.7x	3.7x	5.0x	5.0x	4.9x	4%	6%
Mean							4.0x	3.4x	3.3x	15.6x	12.9x	12.0x	20.7x	16.0x	14.7x	9%	13%
Median							3.6x	3.2x	3.0x	17.4x	13.8x	12.8x	22.4x	16.5x	15.1x	9%	12%
Max							8.8x	7.3x	6.9x	22.3x	19.8x	18.1x	32.2x	26.2x	23.9x	17%	35%

Note: Multiples are based on enterprise value as of 30 June 2022 and historical and forecast sales, EBITDA and EBIT, calendarised to 31 December. "nmf": not meaningful; "n/a": not available. Enterprise Value is adjusted for minority interest, preference equity, pension deficit and investments in associates.

Source: CapIQ

Instrumentation – Life Sciences

Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue			EV/EBITDA			EV/EBIT			2 Year CAGR 2021-2023		
							Revenue (GBPm)	Revenue growth	EBITDA (GBPm)	EBITDA %	EBIT (GBPm)	EBIT %	2021	2022	2023	2021	2022	2023
Agilent Technologies, Inc.	USA	Oct-21	29,196	1,483	30,680	0.9x	6.6x 4,665 10%	5.5x 5,586 20%	5.1x 5,990 7%	23.1x 1,327 28%	18.8x 1,636 29%	17.2x 1,787 30%	27.1x 1,131 24%	20.9x 1,470 26%	19.2x 1,598 27%	13%	16%	
Bio-Rad Laboratories, Inc.	USA	Dec-21	12,100	(510)	11,590	n/a	5.4x 2,158 16%	4.8x 2,391 11%	4.5x 2,571 8%	21.3x 545 25%	19.2x 604 25%	16.4x 707 27%	27.7x 418 19%	25.8x 449 19%	21.1x 549 21%	9%	14%	
Bruker Corporation	USA	Dec-21	7,709	235	7,960	0.5x	4.5x 1,786 23%	3.8x 2,113 18%	3.5x 2,246 6%	19.8x 402 23%	16.1x 493 24%	14.8x 539 20%	24.8x 321 18%	18.9x 421 20%	17.2x 464 21%	12%	16%	
Danaher Corporation	USA	Dec-21	149,360	14,619	166,477	1.6x	7.7x 21,752 33%	6.6x 25,283 16%	6.3x 26,493 5%	21.2x 7,859 36%	18.6x 8,954 35%	17.7x 9,429 36%	27.0x 6,158 28%	24.6x 6,754 27%	23.2x 7,174 27%	10%	10%	
Judges Scientific plc	UK	Dec-21	462	3	466	0.1x	5.1x 91 14%	4.4x 107 17%	3.9x 120 12%	23.4x 20 22%	18.1x 120 24%	14.6x 32 27%	30.7x 15 17%	19.0x 24 23%	15.7x 30 25%	15%	27%	
Mettler-Toledo International Inc.	USA	Dec-21	21,442	1,335	22,777	1.3x	8.3x 2,746 22%	7.0x 3,243 18%	6.6x 3,437 6%	27.6x 824 30%	22.2x 1,027 32%	20.5x 1,113 29%	30.0x 758 29%	24.2x 943 29%	22.2x 1,026 30%	12%	16%	
PerkinElmer, Inc.	USA	Jan-22	14,764	3,340	18,105	3.0x	5.3x 3,402 (8%)	4.9x 3,717 9%	4.5x 3,995 7%	23.4x 1,048 31%	18.1x 1,095 29%	14.6x 1,169 29%	30.7x 32 29%	20.9x 978 29%	19.0x 979 26%	15.7x 1,062 27%	8%	6%
Sartorius Aktiengesellschaft	Germany	Dec-21	19,287	1,530	21,272	1.3x	7.3x 2,897 38%	6.0x 3,551 23%	5.5x 3,898 10%	22.2x 957 33%	17.6x 1,207 34%	16.0x 1,326 34%	27.1x 786 27%	21.9x 970 27%	19.8x 1,072 28%	16%	18%	
Thermo Fisher Scientific Inc.	USA	Dec-21	175,020	23,272	198,425	2.3x	6.9x 28,958 23%	5.7x 34,966 21%	5.4x 36,603 5%	20.4x 9,704 34%	19.8x 10,003 29%	18.8x 10,580 29%	25.7x 7,710 27%	22.3x 8,892 25%	21.2x 9,356 26%	12%	4%	
Waters Corporation	USA	Dec-21	16,407	785	17,192	0.9x	8.4x 2,057 19%	7.1x 2,428 18%	6.7x 2,569 6%	23.5x 733 36%	19.6x 878 36%	18.6x 925 36%	27.6x 623 36%	23.4x 736 30%	21.9x 784 31%	12%	12%	
Min							4.5x	3.8x	3.5x	17.3x	16.1x	14.6x	18.5x	18.5x	15.7x	8%	4%	
Mean							6.5x	5.6x	5.2x	22.0x	18.7x	17.0x	26.6x	22.0x	19.9x	12%	14%	
Median							6.7x	5.6x	5.3x	21.7x	18.7x	16.8x	27.1x	22.1x	20.5x	12%	15%	
Max							8.4x	7.1x	6.7x	27.6x	22.2x	20.5x	30.7x	25.8x	23.2x	16%	27%	

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Source: CapIQ

Test & Measurement - Q2 2022 Industry update

Test, Inspection & Certification services

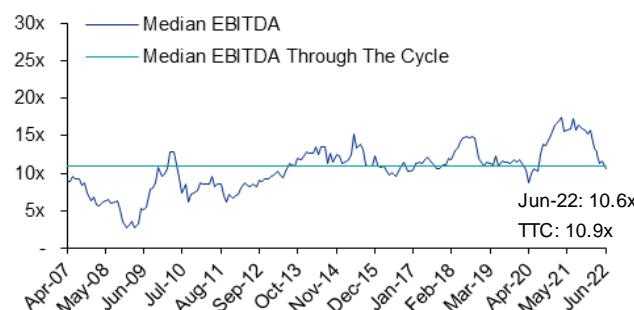
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash) (GBPm)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue			EV/EBITDA			EV/EBIT			2 Year CAGR 2021-2023	
							Revenue (GBPm)	Revenue growth	2021	2022	2023	EBITDA (GBPm)	EBITDA %	2021	2022	2023	Sales
ALS Limited	AU	Mar-22	2,929	636	3,434	1.9x	3.0x 1.155	2.6x 1.316	2.4x 1.412	12.8x 269	10.4x 330	9.4x 364	20.6x 167	13.9x 248	12.4x 276	11%	16%
Appplus Services, S.A.	ES	Dec-21	810	663	1,513	2.5x	1.0x 1,492	0.9x 1,678	0.9x 1,768	6.4x 235	5.7x 267	5.3x 286	14.4x 105	8.9x 170	8.2x 185	9%	10%
Bureau Veritas SA	FR	Dec-21	9,519	1,228	10,961	1.3x	2.6x 4,184	2.3x 4,911	2.2x 5%	13.1x 840	11.4x 961	10.8x 1,018	18.0x 610	14.7x 745	13.8x 794	8%	10%
Eurofins Scientific SE	DE	Dec-21	12,425	1,880	14,388	1.4x	2.6x 5,642	2.6x 5,603	2.5x 5,767	9.1x 1,578	10.7x 1,347	10.5x 1,366	12.6x 1,139	15.5x 930	15.4x 936	1%	nmf
Exponent, Inc.	US	Dec-21	3,901	(151)	3,750	n/a	nmf 321	nmf 384	nmf 412	nmf 92	nmf 116	nmf 126	nmf 82	nmf 103	nmf 111	nmf	nmf
Intertek Group plc	UK	Dec-21	6,777	1,026	7,835	1.4x	2.8x 2,786	2.5x 3,099	2.4x 3,267	12.5x 624	10.7x 736	9.9x 788	17.6x 445	14.8x 528	13.8x 569	8%	12%
Mistras Group, Inc.	US	Dec-21	146	187	333	2.9x	0.7x 500	0.6x 585	0.5x 624	6.5x 51	5.1x 65	4.7x 71	20.4x 16	16.9x 20	11.8x 28	12%	18%
SGS SA	CH	Dec-21	14,108	1,885	16,041	1.4x	3.1x 5,189	2.8x 5,832	2.6x 6,123	13.7x 1,168	11.6x 1,383	11.0x 1,457	21.2x 756	16.5x 972	15.4x 1,039	9%	12%
Min							0.7x	0.6x	0.5x	6.4x	5.1x	4.7x	12.6x	8.9x	8.2x	1%	10%
Mean							2.2x	2.0x	1.9x	10.6x	9.4x	8.8x	17.8x	14.5x	13.0x	8%	13%
Median							2.6x	2.5x	2.4x	12.5x	10.7x	9.9x	18.0x	14.8x	13.8x	9%	12%
Max							3.1x	2.8x	2.6x	13.7x	11.6x	11.0x	21.2x	16.9x	15.4x	12%	18%

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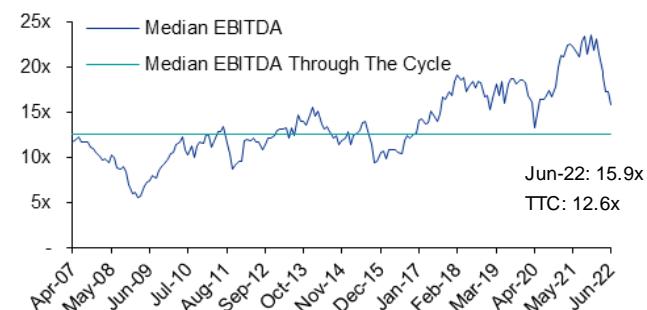
Source: CapiQ

Public company valuations – Through the cycle (EV/LTM EBITDA)

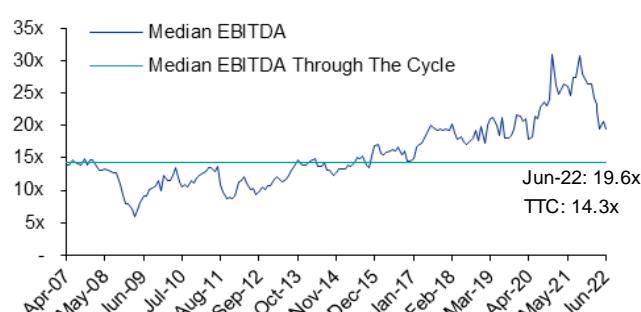
Sensors



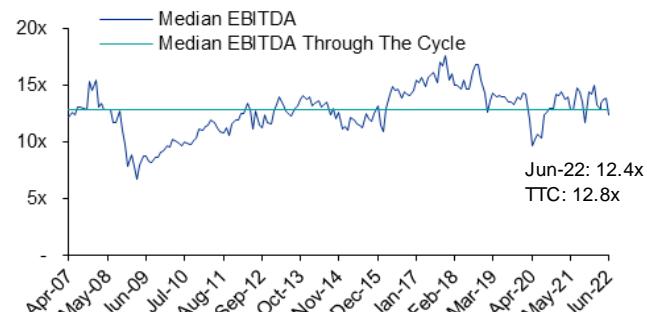
Instrumentation – Industrials



Instrumentation – Life Sciences



Test, Inspection & Certification services



Note: The companies used in the public company valuations make up the constituents of the TTC analysis. Multiples are based on LTM basis. Enterprise Value is adjusted for minority interest, preference equity, pension deficit and investments in associates.

Source: CapiQ

Test & Measurement - Q2 2022 Industry update

M&A transaction history

Sensors

Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
OMEGA Engineering	USA	Provider of a broad range of process measurement and control instrumentation to industrial	Dwyer Instruments (Arcline)	USA	May 22	USD 525m	20.4x
Photon Control Inc.	Canada	Designs, manufactures and distributes a range of optical sensors and systems to measure temperature and position	MKS Instruments, Inc.	USA	Jun-21	USD 312m	15.6x
Diversified Technical Systems	USA	Manufacturer of data acquisition systems and sensors for product and safety testing	Vishay Precision Group	USA	Jun-21	USD 47m	5.9x
Xirgo Technologies Inc	USA	Provides telematics & data insight solutions for transport & logistics end markets	Sensata Technologies	UK	Apr-21	USD 400m	16.0x
Flir Systems	USA	Designer, manufacturer and marketer of camera systems for a wide variety of thermography and imaging applications	Teledyne Technologies Incorporated	USA	Jan-21	USD 7,800m	18.9x
MTS Systems Corporation	USA	Supplier of advanced test systems, motion simulators and precision sensors	Amphenol Corporation	USA	Dec-20	USD 1.7bn	14.0x
OptaSense Holdings, Ltd	UK	Fiber optic distributed monitoring solutions	Luna Innovations Incorporated	USA	Dec-20	GBP 29m	13.0x
Sens-Tech Ltd	UK	Manufacturer of x-ray and light detector modules	discoverIE Group plc	UK	Oct-19	GBP 58m	5.9x
Sensys Networks, Inc.	USA	Provides integrated wireless traffic data systems and traffic management solutions	TagMaster AB	Sweden	Jun-19	USD 16m	9.4x
First Sensor AG	Germany	Manufacturer of sensors, detectors and emitters	TE Connectivity Ltd.	Switzerland	Jun-19	EUR 308m	14.5x
Positek Limited	UK	Designer and manufacturer of linear, rotary, tilt and submersible sensors	discoverIE Group plc	UK	Apr-19	GBP 4.6m	7.7x
Resideo Technologies, Inc.	USA	Home comfort and security solutions and wholesale distributor of security and low-voltage products	Spin off from Honeywell International Inc.	USA	Oct-18	USD 3,259m	14.0x
Variohm Holdings Limited	UK	Manufacturer of position, pressure and temperature sensors	discoverIE Group plc	UK	Jan-17	GBP 13.9m	7.0x
Min							5.9x
Mean							12.5x
Median							14.0x
Max							20.4x

Source: CapiQ, MergerMarket and KPMG intel

Instrumentation – Industrials

Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
Industrial business segment of Roper technology	USA	Company engaged in designing and developing software and engineered products and solutions	CD&R	USA	Jun-22	USD 5.1bn	19.6x
Dytran Instruments	USA	Manufacturer of piezoelectric, MEMS-based and digital accelerometers	Spectris	UK	May-22	USD 82m	15.8x
Zetec (Roper Technologies)	USA	Zetec is engaged in nondestructive testing (NDT) solutions for critical inspection needs	Eddyfi/NDT (Novacap)	Canada	Jan-22	USD 350m	20.6x
NDC Technologies Inc.	USA	Provider of precision measurement solutions for in-line manufacturing process control	Nordson Corporation	USA	Aug-21	USD 180m	13.5x
Concurrent Real-Time, Inc.	USA	Supplier of real-time operating systems for hardware-in-the-loop simulation applications	Spectris Plc	UK	Apr-21	USD 167m	16.0x
Abaco Systems Inc	USA	Provider of mission critical embedded computing systems for aerospace, defense and industrial applications	AMETEK Inc	USA	Mar-21	USD 1,350m	13.5x
Brüel & Kjaer Vibro (Spectris Subsidiary)	Germany	Supplier of machinery protection and condition monitoring systems for rotating and reciprocating industrial machinery	NSK Ltd	Japan	Dec-20	EUR 180m	20.0x
Microwave Vision SA (52.06%)	France	Designs, manufactures and sells microwave test systems	Groupe HLD	France	Jul-20	EUR 145m	10.2x
Sensit Technologies	USA	Manufacturer of gas leak detection instruments for natural gas, fire services and industrial applications	Halma	UK	Feb-20	USD 51.5m	11.7x
L3Harris Technologies (Security & Detection)	USA	Provides airport and critical infrastructure screening products and other industrial automation products	Leidos Holdings	USA	Feb-20	USD 1bn	13.3x
BTG Group Limited (Spectris Subsidiary)	UK	Provider of integrated, highly specialised process measuring instruments for the paper industry	Voith GmbH	Germany	Dec-19	EUR 319m	11.5x
Gatan, Inc.	USA	Manufacturer of instrumentation used to enhance the operation and performance of electron microscopes	AMETEK, Inc.	USA	Oct-19	USD 925m	14.9x
Rudolph Technologies	USA	Manufacturer of process control metrology and defect inspection systems used by semiconductor manufacturers	Naometrics	USA	Oct-19	USD 769m	13.4x
3M Gas and Flame Detection	France	Manufacturer of gas and flame detection products	Teledyne Technologies	USA	Aug-19	USD 230m	11.0x
Spectro Scientific	USA	Supplier of oil, fuel and fluid analysis instruments to industry, military and laboratories	AMETEK, Inc.	USA	Nov-18	USD 190m	16.5x
Min							10.2x
Mean							14.7x
Median							13.5x
Max							20.6x

Source: CapiQ, MergerMarket and KPMG intel



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Test & Measurement - Q2 2022 Industry update

M&A transaction history

Instrumentation – Life Sciences

Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
Food Safety Business of 3M	USA	Food safety business of 3M which sells test kits and other products to help foodmakers monitor sanitation & allergies	Neogen	USA	Dec-21	USD 5.3bn	32.0x
SP Industries	USA	Designer and manufacturer of high-grade biopharma processing equipment & life sciences equipment	ATS	Canada	Nov-21	USD 445m	15.3x
Luminex Corporation	USA	Develops, manufactures and sells biological testing technologies and products	DiaSorin S.p.A.	USA	Jul-21	USD 1,800bn	19.8x
Advanced Instruments	USA	Provider of scientific and analytical instruments	Patricia Industries	Sweden	Sep-20	GBP 608m	24.1x
Danaher Corporation (Life Science business)	USA	Life Sciences business of Danaher Corporation (FortéBio, Pall-Chromatography and SoluMill)	Sartorius AG	USA	Oct-19	USD 750m	20.0x
BioTek Instruments Inc	USA	Design, manufacture and distribution of innovative life science instrumentation	Agilent Technologies	USA	Aug-19	USD 1.17bn	22.0x
Roper Technologies (Scientific-Imaging)	USA	Scientific Imaging business (analytical and scientific instrumentation) of Roper Technologies, Inc.	Teledyne Technologies	USA	Feb-19	USD 225m	11.0x
GE Biopharma	USA	Provider of instruments, consumables and software that support the workflows of drug manufacturers	Danaher	USA	Feb-19	USD 21.4bn	17.0x
EUROIMMUN Medical Laboratory	Germany	Develops, produces and distributes devices, software and consumables for human and veterinary medical diagnostics	PerkinElmer, Inc.	USA	Dec-17	EUR 1.2bn	19.2x
FEI Company	USA	Supplier of instruments for nanoscale imaging, analysis and prototyping	Thermo Fisher Scientific	USA	Sep-16	USD 4.4bn	19.3x
Newport Corporation	USA	Supplier of technology products to scientific research, microelectronics, life and health sciences industries	MKS Instruments	USA	Apr-16	USD 980m	17.5x
Min							11.0x
Mean							19.7x
Median							19.3x
Max							32.0x

Source: MergerMarket and KPMG intel

Test, Inspection & Certification services

Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
Institute of Calibration & Technology	South Korea	Provides measuring instrument calibrations, repair of dysfunctional measuring instruments	Trescal	France	Aug-21	AUD 60m	9.2x
SAI Global Assurance	Australia	Provides assurance services, including management systems certification and second party audits	Intertek Group Plc	UK	May-21	AUD 855m	15.5x
SYNLAB Analytics & Services B.V.	Germany	Provides inspection, verification, testing and certification and other laboratory services	SGS SA	Switzerland	Dec-20	GBP 491m	16.2x
Millbrook (Spectris Subsidiary)	UK	Provides vehicle test, validation and engineering services to automotive, transport, tyre and petrochemical industries	UTAC CERAM	France	Dec-20	GBP 133m	12.0x
QPS Evaluation Services	Canada	Product certification company for a wide range of industrial, medical and electrical & electronic (E&E) products	Applus Services S.A	Spain	Dec-20	EUR 42m	9.0x
LGC Group	UK	Provider of proficiency testing schemes, genomics reagents and instrumentation, research and measurement services	Cirven Partners LLP and Astorg Partners	UK	Apr-20	GBP 3.0bn	17.5x
Onstream Pipeline Inspection	Canada	Provider of pipeline inspection and data analytics services	MISTRAS Group	USA	Feb-19	USD 190m	11.9x
Covance Inc.	USA	Provider of innovative product design and product integrity services	Eurofins Scientific	Netherlands	Aug-18	USD 670m	23.6x
Alchemy Systems	USA	Provider of web-based training and communication platform focusing on workplace injuries and food safety	Intertek Group Plc	UK	Aug-18	USD 480m	21.8x
CLS	UK	Provider of scientific laboratory and consultancy services	Spectris	UK	Jan-18	GBP 163m	18.0x
Trescal SAS	France	Engaged in providing verification, calibration and measurement services	Omers Private Equity	Canada	Jan-18	EUR 670m	14.9x
EAG Laboratories	USA	Surface analysis and materials characterisation provider delivering innovative analytical services and solutions	Eurofins Scientific	Netherlands	Dec-17	USD 780m	11.8x
Exova Group plc	UK	Provider of testing, calibration and consulting services	Element Materials Technology	UK	Jun-17	USD 1.06bn	12.5x
Millbrook Group	UK	Vehicle test, validation and engineering service provider for the automotive markets	Spectris Plc	UK	Sep-16	GBP 122m	12.5x
WIL Research Laboratories	USA	Provider of safety assessment and manufacturing services to pharmaceutical and agricultural companies	Charles River Laboratories	USA	Apr-16	USD 585m	12.9x
Min							9.0x
Mean							14.6x
Median							12.9x
Max							23.6x

Source: CapIQ, MergerMarket and KPMG intel

Test & Measurement - Q2 2022 Industry update

KPMG's global test & measurement credentials

 <p>majority stake acquired by</p> <p></p> <p>Aug 2022</p>	 <p>subsidiaries of Western energy Support and Technology acquired by</p> <p></p> <p>Dec 2021</p>	 <p>Hoskin acquired by</p> <p></p> <p>Dec 2021</p>	 <p>LI-COR acquired by</p> <p></p> <p>Dec 2021</p>	 <p>AlphaSense acquired by</p> <p></p> <p>Dec 2021</p>	 <p>TOXIKON acquired by</p> <p></p> <p>Dec 2021</p>
 <p>GoodFellow acquired by</p> <p></p> <p>Sep 2021</p>	 <p>Qualitech acquired by</p> <p></p> <p>Jul 2021</p>	 <p>Cherney College acquired by</p> <p></p> <p>Jun 2021</p>	 <p>GRL acquired by</p> <p></p> <p>May 2021</p>	 <p>portfolio company of Apax acquired by</p> <p></p> <p>Oct 2020</p>	 <p>FRSA acquired by</p> <p></p> <p>Nov 2019</p>
 <p>Dynamic Systems Inc. acquired by</p> <p></p> <p>Nov 2019</p>	 <p>SK AeroSafety Group portfolio company of Apax acquired by</p> <p></p> <p>Jan 2019</p>	 <p>Labstat acquired by</p> <p></p> <p>Jun 2018</p>	 <p>AMETEK acquired by</p> <p></p> <p>Dec 2017</p>	 <p>RAMBOLL Analytics laboratory business in Finland & Estonia acquired by</p> <p></p> <p>Apr 2017</p>	 <p>EPL Archives acquired by</p> <p></p> <p>Mar 2017</p>
 <p>TMC acquired by</p> <p></p> <p>May 2016</p>	 <p>DTS FOOD ASSURANCE acquired by</p> <p></p> <p>May 2016</p>	 <p>CONTROLTEC acquired by</p> <p></p> <p>Nov 2015</p>	 <p>DEFIANCE acquired by</p> <p></p> <p>Sep 2013</p>	 <p>nolek acquired by</p> <p></p> <p>Dec 2012</p>	 <p>Labstat acquired by</p> <p></p> <p>Jun 2012</p>
 <p>sebaKMT acquired by</p> <p></p> <p>Jun 2012</p>	 <p>AcmeLabs acquired by</p> <p></p> <p>Feb 2012</p>	 <p>spectris acquired by</p> <p></p> <p>Oct 2011</p>	 <p>STORK Materials Testing subsidiary acquired by</p> <p></p> <p>May 2011</p>	 <p>LGC acquired by</p> <p></p> <p>Feb 2010</p>	 <p>Bodycote Materials Testing division acquired by</p> <p></p> <p>Oct 2008</p>

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