

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 Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
							2021	2022	2023	2021	2022	2023	2021	2022	2023	Sales	EBITDA
Amphenol Corporation		Dec-21	31,637	2,764	34,460	1.1x	4.3x	3.5x	3.3x	17.4x	14.1x	13.2x	21.1x	17.1x	16.1x	14%	15%
							8,032	9,973	10,480	1,981	2,441	2,613	1,635	2,013	2,143		
							28%	24%	5%	25%	24%	25%	20%	20%	20%		
ams-OSRAM		Dec-21	1,935	1,557	3,471	1.9x	0.8x	0.8x	0.8x	5.2x	4.3x	3.8x	18.8x	10.6x	8.2x	n/mf	16%
							4,231	4,234	4,126	672	809	906	185	320	378		
							35%	0%	(3%)	16%	19%	22%	4%	8%	9%		
CTS Corporation		Dec-21	899	(38)	861	n/a	2.3x	1.8x	1.7x	11.1x	7.6x	7.2x	15.9x	10.1x	9.5x	16%	24%
							379	476	511	78	113	120	54	85	91		
							22%	26%	7%	21%	24%	24%	14%	18%	18%		
discoverIE Group plc		Mar-22	593	51	644	0.9x	1.8x	1.6x	1.6x	13.0x	11.7x	11.1x	25.5x	16.1x	14.0x	7%	8%
							360	396	414	49	55	58	25	40	46		
							5%	10%	4%	14%	14%	14%	7%	10%	11%		
Keyence Corporation		Mar-22	68,120	(6,399)	61,721	n/a	n/mf	n/mf	n/mf	24.5x	21.6x	19.5x	20.8x	22.0x	19.8x	11%	12%
							4,511	5,061	5,590	2,521	2,862	3,169	2,962	2,803	3,111		
							26%	12%	10%	56%	57%	57%	66%	55%	56%		
Littelfuse, Inc.		Jan-22	5,172	141	5,313	0.3x	2.9x	2.5x	2.3x	11.1x	10.3x	10.5x	13.3x	12.9x	13.6x	12%	3%
							1,824	2,140	2,270	480	514	507	400	413	392		
							20%	17%	6%	26%	24%	22%	22%	19%	17%		
Methode Electronics, Inc.		Apr-22	1,168	47	1,221	0.3x	1.3x	1.3x	1.2x	8.2x	7.8x	6.8x	12.2x	12.2x	10.3x	6%	10%
							907	971	1,021	149	156	180	100	100	119		
							17%	7%	5%	16%	16%	18%	11%	10%	12%		
Murata Manufacturing Co., Ltd.		Mar-22	28,536	(2,665)	26,197	n/a	2.4x	2.3x	2.2x	7.6x	7.0x	6.6x	8.8x	9.9x	9.1x	5%	8%
							11,073	11,414	12,102	3,441	3,717	3,998	2,961	2,656	2,869		
							5%	3%	6%	31%	33%	33%	27%	23%	24%		
Sensata Technologies Holding plc		Dec-21	5,335	2,008	7,343	2.4x	2.6x	2.1x	2.0x	11.0x	8.9x	7.9x	15.2x	10.4x	9.3x	15%	18%
							2,822	3,438	3,712	670	828	927	483	705	786		
							26%	22%	8%	24%	24%	25%	17%	21%	21%		
Sensirion Holding AG		Dec-21	1,301	(91)	1,206	n/a	5.2x	4.0x	3.6x	16.9x	16.2x	15.8x	20.2x	21.3x	20.9x	21%	4%
							233	299	339	71	74	76	60	57	58		
							11%	28%	13%	31%	25%	23%	26%	19%	17%		
TE Connectivity Ltd.		Sep-21	30,060	2,507	32,648	0.8x	2.9x	2.5x	2.3x	12.0x	10.1x	9.4x	14.6x	13.3x	12.2x	13%	13%
							11,086	13,207	14,035	2,713	3,245	3,462	2,235	2,456	2,666		
							9%	19%	6%	24%	25%	25%	20%	19%			
TT Electronics plc		Dec-21	307	103	412	1.7x	0.9x	0.8x	0.7x	9.0x	7.0x	6.1x	11.6x	9.5x	7.9x	8%	22%
							476	524	551	46	59	68	36	43	52		
							10%	10%	5%	10%	11%	12%	7%	8%	10%		
							0.8x	0.8x	0.7x	5.2x	4.3x	3.8x	8.8x	9.5x	7.9x	5%	3%
							2.5x	2.1x	2.0x	12.2x	10.6x	9.8x	16.5x	13.8x	12.7x	11%	13%
							2.4x	2.1x	2.0x	11.1x	9.5x	8.7x	15.6x	12.5x	11.3x	12%	13%
							5.2x	4.0x	3.6x	24.5x	21.6x	19.5x	25.5x	22.0x	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. "nmf": 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 Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
							2021	2022	2023	2021	2022	2023	2021	2022	2023	Sales	EBITDA
AMETEK, Inc.		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		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 17%	14%	16%
Halma plc		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.		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.		Oct-21	20,414	97	20,511	0.1x	5.6x 3,657 9%	4.6x 4,422 21%	4.4x 4,664 5%	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.		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		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		Mar-22	1,138	(68)	1,071	n/a	3.0x 355 12%	2.8x 378 6%	2.7x 393 4%	16.3x 66 18%	14.2x 75 20%	13.1x 82 21%	21.8x 49 14%	16.9x 63 17%	15.0x 71 18%	5%	12%
Renishaw plc		Jun-21	2,597	(203)	2,375	n/a	3.8x 619 15%	3.5x 682 10%	3.3x 713 4%	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.		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		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%	15.0x 450 17%	16.6x 406 15%	15.5x 434 15%	4%	6%
Spectris plc		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 17%	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%

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Source: CapIQ

Instrumentation – Life Sciences









Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
							2021	2022	2023	2021	2022	2023	2021	2022	2023	Sales	EBITDA
Agilent Technologies, Inc.		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.		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		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 23%	14.8x 539 24%	24.8x 321 18%	18.9x 421 20%	17.2x 464 21%	12%	16%
Danaher Corporation		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 30%	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		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 26 24%	14.6x 32 27%	30.7x 15 17%	19.0x 24 23%	15.7x 30 25%	15%	27%
Mettler-Toledo International Inc.		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 32%	30.0x 758 28%	24.2x 943 29%	22.2x 1,026 30%	12%	16%
PerkinElmer, Inc.		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%	17.3x 1,048 31%	16.5x 1,095 29%	15.5x 1,169 29%	18.5x 978 29%	18.5x 979 29%	17.0x 1,062 27%	8%	6%
Sartorius Aktiengesellschaft		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.		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		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 30%	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

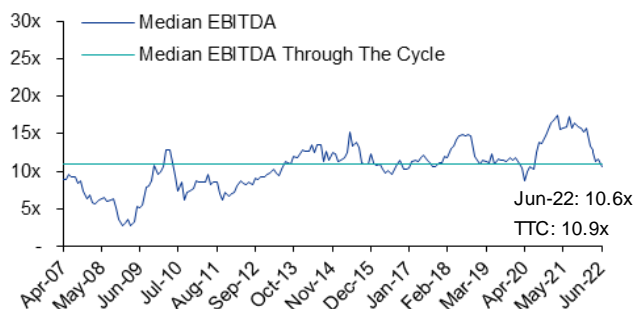
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2022)	EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
							2021	2022	2023	2021	2022	2023	2021	2022	2023	Sales	EBITDA
ALS Limited		Mar-22	2,929	636	3,434	1.9x	3.0x	2.6x	2.4x	12.8x	10.4x	9.4x	20.6x	13.9x	12.4x	11%	16%
Applus Services, S.A.		Dec-21	810	663	1,513	2.5x	1.0x	0.9x	0.9x	6.4x	5.7x	5.3x	14.4x	8.9x	8.2x	9%	10%
Bureau Veritas SA		Dec-21	9,519	1,228	10,961	1.3x	2.6x	2.3x	2.2x	13.1x	11.4x	10.8x	18.0x	14.7x	13.8x	8%	10%
Eurofins Scientific SE		Dec-21	12,425	1,880	14,388	1.4x	4,184	4,679	4,911	840	961	1,018	610	745	794	1%	n/mf
Exponent, Inc.		Dec-21	3,901	(151)	3,750	n/a	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf	n/mf
Intertek Group plc		Dec-21	6,777	1,026	7,835	1.4x	2.8x	2.5x	2.4x	12.5x	10.7x	9.9x	17.6x	15.5x	15.4x	8%	12%
Mistras Group, Inc.		Dec-21	146	187	333	2.9x	0.7x	0.6x	0.5x	6.5x	5.1x	4.7x	20.4x	16.9x	11.8x	12%	18%
SGS SA		Dec-21	14,108	1,885	16,041	1.4x	3.1x	2.8x	2.6x	13.7x	11.6x	11.0x	21.2x	16.5x	15.4x	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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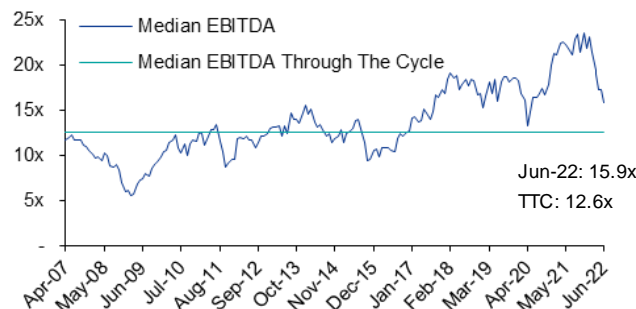
Source: CapIQ

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

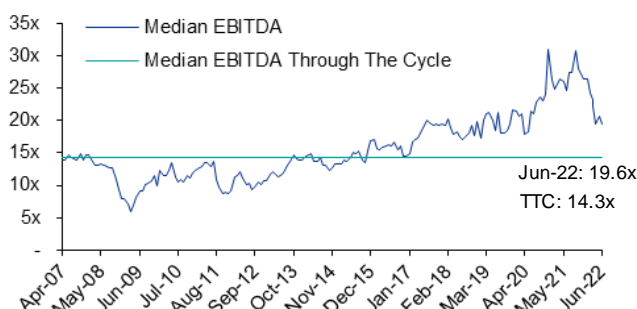
Sensors



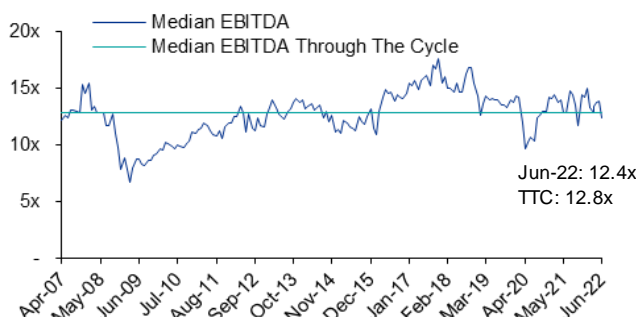
Instrumentation – Industrials



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		Provider of a broad range of process measurement and control instrumentation to industrial	Dwyer Instruments (Arlene)		May 22	USD 525m	20.4x
Photon Control Inc.		Designs, manufactures and distributes a range of optical sensors and systems to measure temperature and position	MKS Instruments, Inc.		Jun-21	USD 312m	15.6x
Diversified Technical Systems		Manufacturer of data acquisition systems and sensors for product and safety testing	Vishay Precision Group		Jun-21	USD 47m	5.9x
Xirgo Technologies Inc		Provides telematics & data insight solutions for transport & logistics end markets	Sensata Technologies		Apr-21	USD 400m	16.0x
Flir Systems		Designer, manufacturer and marketer of camera systems for a wide variety of thermography and imaging applications	Teledyne Technologies Incorporated		Jan-21	USD 7,800m	18.9x
MTS Systems Corporation		Supplier of advanced test systems, motion simulators and precision sensors	Amphenol Corporation		Dec-20	USD 1.7bn	14.0x
OptaSense Holdings, Ltd		Fiber optic distributed monitoring solutions	Luna Innovations Incorporated		Dec-20	GBP 29m	13.0x
Sens-Tech Ltd		Manufacturer of x-ray and light detector modules	discoverIE Group plc		Oct-19	GBP 58m	5.9x
Sensys Networks, Inc.		Provides integrated wireless traffic data systems and traffic management solutions	TagMaster AB		Jun-19	USD 16m	9.4x
First Sensor AG		Manufacturer of sensors, detectors and emitters	TE Connectivity Ltd.		Jun-19	EUR 308m	14.5x
Positek Limited		Designer and manufacturer of linear, rotary, tilt and submersible sensors	discoverIE Group plc		Apr-19	GBP 4.6m	7.7x
Resideo Technologies, Inc.		Home comfort and security solutions and wholesale distributor of security and low-voltage products	Spin off from Honeywell International Inc.		Oct-18	USD 3,259m	14.0x
Variohm Holdings Limited		Manufacturer of position, pressure and temperature sensors	discoverIE Group plc		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		Company engaged in designing and developing software and engineered products and solutions	CD&R		Jun-22	USD 5.1bn	19.6x
Dytran Instruments		Manufacturer of piezoelectric, MEMS-based and digital accelerometers	Spectris		May-22	USD 82m	15.8x
Zetec (Roper Technologies)		Zetec is engaged in nondestructive testing (NDT) solutions for critical inspection needs	Eddyfi/NDT (Novacap)		Jan-22	USD 350m	20.6x
NDC Technologies Inc.		Provider of precision measurement solutions for in-line manufacturing process control	Nordson Corporation		Aug-21	USD 180m	13.5x
Concurrent Real-Time, Inc.		Supplier of real-time operating systems for hardware-in-the-loop simulation applications	Spectris Plc		Apr-21	USD 167m	16.0x
Abaco Systems Inc		Provider of mission critical embedded computing systems for aerospace, defense and industrial applications	AMETEK Inc		Mar-21	USD 1,350m	13.5x
Brüel & Kjær Vibro (Spectris Subsidiary)		Supplier of machinery protection and condition monitoring systems for rotating and reciprocating industrial machinery	NSK Ltd		Dec-20	EUR 180m	20.0x
Microwave Vision SA (52.06%)		Designs, manufactures and sells microwave test systems	Groupe HLD		Jul-20	EUR 145m	10.2x
Sensit Technologies		Manufacturer of gas leak detection instruments for natural gas, fire services and industrial applications	Halma		Feb-20	USD 51.5m	11.7x
L3Harris Technologies (Security & Detection)		Provides airport and critical infrastructure screening products and other industrial automation products	Leidos Holdings		Feb-20	USD 1bn	13.3x
BTG Group Limited (Spectris Subsidiary)		Provider of integrated, highly specialised process measuring instruments for the paper industry	Voith GmbH		Dec-19	EUR 319m	11.5x
Gatan, Inc.		Manufacturer of instrumentation used to enhance the operation and performance of electron microscopes	AMETEK, Inc.		Oct-19	USD 925m	14.9x
Rudolph Technologies		Manufacturer of process control metrology and defect inspection systems used by semiconductor manufacturers	Naometrics		Oct-19	USD 769m	13.4x
3M Gas and Flame Detection		Manufacturer of gas and flame detection products	Teledyne Technologies		Aug-19	USD 230m	11.0x
Spectro Scientific		Supplier of oil, fuel and fluid analysis instruments to industry, military and laboratories	AMETEK, Inc.		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		Food safety business of 3M which sells test kits and other products to help foodmakers monitor sanitation & allergies	Neogen		Dec-21	USD 5.3bn	32.0x
SP Industries		Designer and manufacturer of high-grade biopharma processing equipment & life sciences equipment	ATS		Nov-21	USD 445m	15.3x
Luminex Corporation		Develops, manufactures and sells biological testing technologies and products	DiaSorin S.p.A.		Jul-21	USD 1,800bn	19.8x
Advanced Instruments		Provider of scientific and analytical instruments	Patricia Industries		Sep-20	GBP 608m	24.1x
Danaher Corporation (Life Science business)		Life Sciences business of Danaher Corporation (FortéBio, Pall-Chromatography and Solohill)	Sartorius AG		Oct-19	USD 750m	20.0x
BioTek Instruments Inc		Design, manufacture and distribution of innovative life science instrumentation	Agilent Technologies		Aug-19	USD 1.17bn	22.0x
Roper Technologies (Scientific-Imaging)		Scientific Imaging business (analytical and scientific instrumentation) of Roper Technologies, Inc.	Teledyne Technologies		Feb-19	USD 225m	11.0x
GE Biopharma		Provider of instruments, consumables and software that support the workflows of drug manufacturers	Danaher		Feb-19	USD 21.4bn	17.0x
EUROIMMUN Medical Laboratory		Develops, produces and distributes devices, software and consumables for human and veterinary medical diagnostics	PerkinElmer, Inc.		Dec-17	EUR 1.2bn	19.2x
FEI Company		Supplier of instruments for nanoscale imaging, analysis and prototyping	Thermo Fisher Scientific		Sep-16	USD 4.4bn	19.3x
Newport Corporation		Supplier of technology products to scientific research, microelectronics, life and health sciences industries	MKS Instruments		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		Provides measuring instrument calibrations, repair of dysfunctional measuring instruments	Trescal		Aug-21	AUD 60m	9.2x
SAI Global Assurance		Provides assurance services, including management systems certification and second party audits	Intertek Group Plc		May-21	AUD 855m	15.5x
SYNLAB Analytics & Services B.V.		Provides inspection, verification, testing and certification and other laboratory services	SGS SA		Dec-20	GBP 491m	16.2x
Millbrook (Spectris Subsidiary)		Provides vehicle test, validation and engineering services to automotive, transport, tyre and petrochemical industries	UTAC CERAM		Dec-20	GBP 133m	12.0x
QPS Evaluation Services		Product certification company for a wide range of industrial, medical and electrical & electronic (E&E) products	Applus Services S.A		Dec-20	EUR 42m	9.0x
LGC Group		Provider of proficiency testing schemes, genomics reagents and instrumentation, research and measurement services	Cinven Partners LLP and Astorg Partners		Apr-20	GBP 3.0bn	17.5x
Onstream Pipeline Inspection		Provider of pipeline inspection and data analytics services	MISTRAS Group		Feb-19	USD 190m	11.9x
Covance Inc.		Provider of innovative product design and product integrity services	Eurofins Scientific		Aug-18	USD 670m	23.6x
Alchemy Systems		Provider of web-based training and communication platform focusing on workplace injuries and food safety	Intertek Group Plc		Aug-18	USD 480m	21.8x
CLS		Provider of scientific laboratory and consultancy services	Spectris		Jan-18	GBP 163m	18.0x
Trescal SAS		Engaged in providing verification, calibration and measurement services	Omers Private Equity		Jan-18	EUR 670m	14.9x
EAG Laboratories		Surface analysis and materials characterisation provider delivering innovative analytical services and solutions	Eurofins Scientific		Dec-17	USD 780m	11.8x
Exova Group plc		Provider of testing, calibration and consulting services	Element Materials Technology		Jun-17	USD 1.06bn	12.5x
Millbrook Group		Vehicle test, validation and engineering service provider for the automotive markets	Spectris Plc		Sep-16	GBP 122m	12.5x
WIL Research Laboratories		Provider of safety assessment and manufacturing services to biopharmaceutical and agricultural companies	Charles River Laboratories		Apr-16	USD 585m	12.9x
Min							9.0x
Mean							14.6x
Median							12.9x
Max							23.6x

Source: CapIQ, MergerMarket and KPMG intel

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KPMG's global test & measurement credentials

 ACUSTICS majority stake acquired by Aug 2022	 CEESI GRAFTEL (subsidiaries of Western energy Support and Technology) acquired by Dec 2021	 HOSKIN SCIENTIFIC acquired by Dec 2021	 LI-COR acquired by Dec 2021	 AlphaSense acquired by Dec 2021	 TOXIKON <small>RIGHT FROM THE START</small> acquired by Dec 2021
 Goodfellow acquired by Sep 2021	 Qualitech acquired by Jul 2021	 Cherney College <small>Cultivating Knowledge Through Training & Education</small> acquired by Jun 2021	 GRL <small>GRANITE RIVER LABS</small> acquired by May 2021	 portfolio company of Apax <small>PARTNERS</small> acquired by Oct 2020	 FRSA acquired by Nov 2019
 Dynamic Systems Inc. acquired by Nov 2019	 SK AeroSafety Group portfolio company of Apax <small>PARTNERS</small> acquired by Jan 2019	 Labstat acquired by Jun 2018	 AMETEK acquired by Dec 2017	 RAMBOLL Analytics laboratory business in Finland & Estonia acquired by Apr 2017	 EPL ARCHIVES acquired by Mar 2017
 TMC acquired by May 2016	 DTS FOOD ASSURANCE acquired by May 2016	 CONTROLTEC acquired by Nov 2015	 DEFIANCE <small>Technology for Business Excellence</small> acquired by Sep 2013	 nolek acquired by Dec 2012	 Labstat acquired by Jun 2012
 sebaKMT acquired by Jun 2012	 AcmeLabs acquired by Feb 2012	 spectris acquired by Oct 2011	 STORK Materials Testing subsidiary acquired by May 2011	 LGC acquired by Feb 2010	 Bodycote Materials Testing division acquired by Oct 2008

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