

Test & Measurement

Q2 2023 Industry Update

June 2023



technology



Thermo Fisher Scientific (TMO:NYQ) acquired MarqMetrix, a US based developer of Raman-based spectroscopy solutions for in-line measurement Jun 23:

Spectris(SXS:LSE) agreed to acquire MicroStrain, a US based designer and manufacturer of micro-displacement sensors for aerospace, biomedical, civil engineering, environmental, industrial manufacturing and robotics sectors for GBP 29m Jun 23:

Element Materials Technology acquired NCT, a South Korea based company that provides testing and certification services for the battery and electrical safety sectors Apr 23: SPL, backed by Sentinel Capital Partners, acquired Ana-Lab, a US based company engaged in providing testing and analysis of biodiesel and other alternative fuels

May 23: KKR & Co (KKR:NYQ) agreed to acquire Industrial Physics, a US based manufacturer of testing instruments for measuring physical and analytical properties

May 23 ENVEA Global, backed by Carlyle (CG:NSQ), acquired California Analytical Instruments, a US based provider of gas analysers & systems for use in industrial, environmental, health & safety and automotive emissions measurement applications May 23:

Verder Scientific acquired Erwekas, a Germany based designer and manufacturer of medicine testina equipment British Engineering Services acquired Engineering Safety Inspection Services, a May 23:

UK based engineering safety inspection services provider May 23:

Normec Group acquired i2 Analytical, a UK based testing laboratory providing a range of chemical analyses on soil, water, building and waste materials May 23: Previan Technologies (f/k/a Eddyfi/NDT) acquired Sensor Networks, a US based

manufacturer of sensing tools and technologies that enable the inspection and remote monitoring of safety-critical components with increased productivity Halma (HLMA:LSE) acquired Sewertronics, Poland based company engaged in May 23: repairs and rehabilitates wastewater pipelines, by using its patented ultraviolet LED

TransDigm Group (TDG:NYQ) acquired Calspan Corporation, a US based provider of testing and technology development services, solutions and systems in the aerospace, defense and automotive industries

Impinj (PI:NSQ) acquired Voyantic, a Finland based provider of test & measurement solutions for RFID inlay and label design and manufacturing Apr 23:

Apr 23: Applied Technical Services acquired Accu-Chek, a US based provider of calibration and dimensional inspection services to automotive, medical and aerospace end markets

ALS (ALQ:ASX) acquired Hidro.Lab., a Croatia based authorised and accredited laboratory for analysis of waste, underground and surface water, waste, sediment, Apr 23: sludge, soil and ecotoxicology, for AUD 3.1m

Phenna Group acquired **Cansford**, a UK based testing laboratory that offers drug, alcohol and DNA testing services Apr 23:

Emerson (EMR:NYQ) acquired National Instruments (NATI:NSQ), a US based provider of software-connected and automated test & measurement systems for USD 8.2bn (EV/ EBITDA: 21.5x)

Calibre Scientific (StoneCalibre) acquired Greenwood Products, a US based manufacturer and provider of laboratory supplies and consumables, serving environmental, energy, pharmaceutical, food and flavors amongst other industries

Horiba (6856:TSE) agreed to acquire Tethys Instruments, a France based Apr 23: manufacturer and seller of equipment to measure water quality for the environment and process markets

Applied Technical Services acquired Instrumentation Technical Services, a US Apr 23: sed provider of maintenance, repair, testing and calibration service to indust customers

AmSpec Services acquired Oil Test Internacional De Argentina, an Argentina based Apr 23: company that provides oil inspection, sampling, testing, analysis and certification services

Public co Sensors	mpan	y valua	tions				EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2022-2024	
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2023)	2022	2023	2024	2022	2023	2024	2022	2023	2024	Sales	EBITDA
Amphenol Corporation	_	Dec-22	39,796	2,478	42,337	1.0x	4.0x 10,476 30%	4.1x 10,192 (3%)	3.9x 10,893 7%	16.3x 2,589 25%	16.4x 2,581 25%	15.3x 2,755 25%	22.2x 1,909 18%	20.0x 2,116 21%	18.4x 2,293 21%	2%	3%
ams-OSRAM AG	0	Dec-22	1,638	1,504	3,118	2.6x	0.7x 4,170 (1%)	1.0x 3,137 (25%)	1.0x 3,267 4%	4.3x 729 17%	5.5x 572 18%	4.3x 719 22%	16.1x 194 5%	nmf (113) n/a	30.1x 104 3%	nmf	Nmf
CTS Corporation		Dec-22	1,058	(32)	1,026	n/a	2.5x 487 29%	2.5x 497 2%	2.3x 527 6%	10.8x 114 23%	10.4x 118 24%	9.7x 127 24%	16.6x 74 15%	14.0x 88 18%	12.6x 97 18%	4%	5%
discoverIE Group plc		Mar-23	803	62	864	0.9x	1.9x 421 17%	1.8x 446 6%	1.8x 461 3%	13.6x 59 14%	12.6x 64 14%	12.1x 67 14%	18.5x 44 10%	15.8x 51 11%	15.1x 54 12%	5%	6%
Keyence Corporation		Mar-23	89,559	(5,830)	83,515	n/a	15.9x 5,605 20%	15.3x 5,809 4%	13.8x 6,423 11%	28.6x 3,109 55%	27.4x 3,242 56%	24.7x 3,598 56%	24.2x 3,671 65%	27.9x 3,185 55%	25.0x 3,553 55%	7%	8%
Littelfuse, Inc.		Dec-22	5,692	512	6,204	1.1x	2.8x 2,086 36%	2.9x 1,984 (5%)	2.7x 2,118 7%	10.4x 557 27%	12.4x 467 24%	11.3x 515 24%	14.8x 391 19%	17.0x 342 17%	15.0x 388 18%	1%	nmf
Methode Electronics, Inc.		Apr-23	985	141	1,142	1.1x	1.4x 928 13%	1.4x 942 2%	1.3x 1,039 10%	9.5x 140 15%	9.3x 143 15%	7.7x 173 17%	14.8x 90 10%	14.7x 91 10%	11.5x 116 11%	6%	11%
Murata Manufacturing Co., Ltd.		Mar-23	28,227	(2,081)	26,146	n/a	2.6x 10,935 (6%)	2.7x 10,754 (2%)	2.5x 11,587 8%	9.3x 3,119 29%	9.3x 3,108 29%	8.1x 3,576 31%	11.2x 2,583 24%	13.9x 2,081 19%	11.6x 2,489 21%	3%	7%
Sensata Technologies Holding plc		Dec-22	5,413	2,391	7,804	3.2x	2.6x 3,344 19%	2.6x 3,313 (1%)	2.5x 3,548 7%	11.9x 737 22%	11.0x 794 24%	9.9x 878 25%	19.9x 438 13%	13.1x 665 20%	11.9x 734 21%	3%	9%
Sensirion Holding AG	0	Dec-22	1,341	(110)	1,226	n/a	4.4x 289 24%	4.3x 293 2%	3.7x 339 16%	16.3x 78 27%	19.5x 65 22%	17.1x 74 22%	20.5x 62 21%	25.5x 49 17%	21.6x 58 17%	8%	nmf
TE Connectivity Ltd.		Sep-22	34,755	2,689	37,530	0.9x	2.5x 14,525 28%	2.8x 13,052 (10%)	2.6x 13,879 6%	10.5x 3,467 24%	12.0x 3,037 23%	10.9x 3,353 24%	16.3x 2,241 15%	16.2x 2,256 17%	14.3x 2,542 18%	nmf	nmf
TT Electronics plc		Dec-22	328	138	467	2.0x	0.8x 617 30%	0.7x 629 2%	0.7x 634 1%	7.4x 63 10%	6.7x 70 11%	6.2x 75 12%	9.9x 47 8%	9.0x 52 8%	8.3x 56 9%	1%	9%
Min Mean Median Max							0.7x 2.4x 2.5x 4.4x	0.7x 2.4x 2.6x 4.3x	0.7x 2.3x 2.5x 3.9x	3.3x 11.9x 10.8x 18.5x	4.5x 11.3x 11.0x 19.5x	3.6x 10.2x 9.9x 17.1x	11.2x 18.8x 17.5x 33.1x	9.1x 15.8x 14.7x 25.5x	8.3x 13.6x 12.6x 21.6x	1% 4% 4% 8%	3% 7% 8% 11%

Multiples are based on enterprise value as of 30 June 2023 and historical and forecast sales, EBITDA and EBIT, calendarised to 31 December. "nmf": not meaningful; "n/a": not available Note: Enterprise Value is adjusted for minority interest, preference equity, pension deficit and investments in associates

Highlighted values are considered as outliers and are not included in calculations

Source: CapIQ

Instrumer Industrials							EV/Revenue Revenue (GBPm) Revenue growth		EV/EBITDA EBITDA (GBPm) EBITDA %		Pm)	EV/EBIT EBIT (GBPm) EBIT %					
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2023	2022	2023	2024	2022	2023	2024	2022	2023	2024	Sales	
AMETEK, Inc.		Dec-22	27,052	1,839	28,890	1.1x	5.7x 5,105 25%	5.5x 5,256 3%	5.2x 5,565 6%	18.4x 1,569 31%	17.7x 1,629 31%	16.5x 1,750 31%	26.3x 1,099 22%	22.1x 1,304 25%	20.6x 1,404 25%	4%	6%
Fortive Corporation		Dec-22	19,462	2,250	21,780	1.7x	4.5x 4,835 25%	4.5x 4,883 1%	4.3x 5,113 5%	17.0x 1,285 27%	16.1x 1,353 28%	15.1x 1,443 28%	29.0x 752 16%	23.6x 924 19%	21.5x 1,014 20%	3%	6%
Halma plc		Mar-22	8,420	500	8,900	1.1x	5.2x 1,724 17%	4.7x 1,881 9%	4.5x 1,996 6%	21.7x 410 24%	19.6x 453 24%	18.3x 487 24%	25.4x 350 20%	22.5x 396 21%	20.9x 426 21%	8%	9%
HORIBA, Ltd.		Dec-22	2,031	(467)	1,570	n/a	0.9x 1,700 18%	1.0x 1,609 (5%)	0.9x 1,667 4%	4.4x 360 21%	4.9x 320 20%	4.6x 339 20%	4.8x 325 19%	6.6x 239 15%	6.1x 257 15%	nmf	nmf
Keysight Technologies, Inc.	_	Oct-22	23,252	(168)	23,084	n/a	4.9x 4,737 29%	5.1x 4,539 (4%)	4.9x 4,755 5%	15.7x 1,472 31%	15.7x 1,469 32%	14.6x 1,581 33%	21.1x 1,093 23%	17.7x 1,304 29%	16.5x 1,400 29%	nmf	4%
MKS Instruments, Inc.	_	Dec-22	4,776	3,534	8,403	5.6x	2.9x 2,944 35%	2.8x 3,013 2%	2.6x 3,274 9%	11.2x 751 26%	13.4x 629 21%	10.9x 768 23%	17.3x 485 16%	16.9x 497 16%	13.1x 643 20%	5%	1%
National Instruments Corporation	_	Dec-22	5,571	369	5,940	1.0x	4.3x 1,375 27%	4.1x 1,449 5%	3.8x 1,569 8%	22.8x 260 19%	16.3x 364 25%	14.7x 403 26%	40.5x 147 11%	18.9x 315 22%	16.4x 362 23%	7%	24%
Oxford Instruments plc		Mar-22	1,445	(66)	1,380	n/a	3.4x 405 14%	3.2x 426 5%	3.1x 440 3%	17.6x 78 19%	16.1x 86 20%	15.1x 91 21%	20.5x 67 17%	18.2x 76 18%	17.2x 80 18%	4%	8%
Renishaw plc		Jun-22	2,977	(196)	2,759	n/a	4.0x 686 11%	3.8x 719 5%	3.6x 756 5%	14.8x 186 27%	13.7x 202 28%	12.4x 222 29%	18.4x 150 22%	17.7x 156 22%	16.0x 172 23%	5%	9%
Shimadzu Corporation		Mar-22	7,418	(852)	6,566	n/a	2.3x 2,890 5%	2.2x 2,953 2%	2.1x 3,090 5%	12.5x 525 18%	12.1x 542 18%	11.4x 577 19%	13.1x 500 17%	15.2x 433 15%	14.2x 464 15%	3%	5%
Spectris plc		Dec-22	3,826	(163)	3,669	n/a	2.8x 1,327 14%	2.6x 1,422 7%	2.5x 1,445 2%	15.4x 239 18%	12.9x 284 20%	12.1x 302 21%	20.3x 181 14%	16.5x 223 16%	14.7x 249 17%	4%	13%
Teledyne Technologies Incorporated	_	Jan-23	16,997	2,853	19,852	2.3x	4.2x 4,767 18%	4.1x 4,858 2%	3.9x 5,055 4%	16.5x 1,204 25%	16.0x 1,241 26%	15.2x 1,307 26%	24.7x 803 17%	20.8x 953 20%	19.2x 1,033 20%	3%	4%
Min Mean Median Max							0.9x 3.7x 4.1x 5.7x	1.0x 3.6x 4.0x 5.5x	0.9x 3.5x 3.7x 5.2x	4.4x 15.7x 16.1x 22.8x	4.9x 14.5x 15.9x 19.6x	4.6x 13.4x 14.7x 18.3x	4.8x 21.8x 20.8x 40.5x	6.6x 18.0x 18.0x 23.6x	6.1x 16.4x 16.5x 21.5x	1% 4% 4% 8%	1% 8% 7% 24%

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CapIQ

Source:

	e Sciences Year End Market Cap Net Debt / EV Net debt /				EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2022-2024			
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2023)	2022	2023	2024	2022	2023	2024	2022	2023	2024	Sales	EBITDA
Agilent Technologies, Inc.		Oct-22	29,995	1,526	31,521	0.8x	5.3x 5,992 28%	5.4x 5,796 (3%)	5.1x 6,191 7%	17.4x 1,807 30%	17.5x 1,797 31%	16.0x 1,976 32%	23.6x 1,335 22%	19.3x 1,636 28%	17.6x 1,789 29%	2%	5%
Bio-Rad Laboratories, Inc.		Dec-22	11,460	(334)	11,144	n/a	4.8x 2,326 8%	4.6x 2,400 3%	4.3x 2,588 8%	19.8x 563 24%	18.0x 618 26%	15.9x 699 27%	31.2x 357 15%	23.7x 471 20%	20.4x 547 21%	5%	11%
Bruker Corporation	_	Dec-22	9,351	516	9,922	1.0x	4.7x 2,100 18%	4.4x 2,279 9%	4.1x 2,438 7%	21.0x 473 23%	19.3x 514 23%	17.3x 573 24%	29.7x 334 16%	22.4x 442 19%	20.1x 494 20%	8%	10%
Danaher Corporation		Dec-22	148,541	12,237	162,549	1.4x	6.2x 26,119 20%	6.7x 24,429 (6%)	6.2x 26,201 7%	17.4x 9,359 36%	19.1x 8,501 35%	17.6x 9,260 35%	25.4x 6,403 25%	25.1x 6,470 26%	22.7x 7,145 27%	nmf	nmf
Judges Scientific plc		Dec-22	542	37	579	1.0x	5.1x 113 24%	4.6x 125 11%	4.4x 131 5%	18.1x 32 28%	15.7x 37 29%	14.9x 39 30%	27.4x 21 19%	17.0x 34 27%	16.1x 36 27%	8%	10%
Mettler-Toledo International Inc.		Dec-22	27,299	1,689	28,987	1.5x	8.9x 3,253 18%	8.7x 3,334 2%	8.2x 3,517 6%	27.7x 1,045 32%	25.5x 1,136 34%	23.7x 1,223 35%	34.6x 837 26%	27.4x 1,057 32%	25.6x 1,131 32%	4%	8%
Revvity, Inc.		Jan-23	13,617	3,428	17,156	3.7x	7.0x 2,447 0%	6.5x 2,630 7%	6.0x 2,878 9%	20.3x 845 35%	18.4x 933 35%	16.7x 1,028 36%	26.2x 656 27%	20.8x 826 31%	18.4x 931 32%	8%	10%
Sartorius Aktiengesellschaft		Dec-22	21,164	2,079	23,894	1.6x	6.5x 3,703 28%	6.2x 3,828 3%	5.6x 4,291 12%	18.9x 1,267 34%	18.5x 1,289 34%	16.4x 1,460 34%	22.7x 1,053 28%	23.3x 1,025 27%	20.4x 1,172 27%	8%	7%
Thermo Fisher Scientific Inc.		Dec-22	179,569	22,935	202,860	2.3x	5.4x 37,277 29%	5.5x 36,618 (2%)	5.1x 39,518 8%	19.7x 10,315 28%	20.2x 10,045 27%	18.3x 11,082 28%	32.3x 6,289 17%	23.2x 8,745 24%	20.9x 9,692 25%	3%	4%
Waters Corporation	_	Dec-22	14,752	985	15,737	1.1x	6.4x 2,467 20%	6.1x 2,572 4%	5.7x 2,740 7%	18.1x 872 35%	17.0x 924 36%	15.7x 1,005 37%	24.3x 647 26%	20.2x 780 30%	18.5x 849 31%	5%	7%
Min Mean Median Max							4.7x 6.0x 5.8x 8.9x	4.4x 5.9x 5.8x 8.7x	4.1x 5.5x 5.4x 8.2x	17.4x 19.8x 19.3x 27.7x	15.7x 18.9x 18.5x 25.5x	14.9x 17.2x 16.5x 23.7x	22.7x 27.7x 26.8x 34.6x	17.0x 22.2x 22.8x 27.4x	16.1x 20.1x 20.2x 25.6x	2% 6% 5% 8%	4% 8% 8% 11%

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Source: CapIQ

Test, Inspection & Certification services

Certificat							EV/Revenue Revenue (GBPm) Revenue growth		Pm)	EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2022-2024	
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2023	2022	2023	2024	2022	2023	2024	2022	2023	2024	Sales	EBITDA
							2.8x	2.8x	2.6x	11.0x	10.6x	10.1x	17.0x	14.0x	13.3x		
ALS Limited		Mar-23	3,243	735	3,843	2.0x	1,374	1,391	1,453	348	363	381	226	275	289	3%	5%
							23%	1%	4%	25%	26%	26%	16%	20%	20%		
Applus Services,			244				0.9x	0.9x	0.8x	5.8x	5.5x	5.2x	13.1x	8.7x	8.3x		
S.A.	*	Dec-22	844	746	1,619	2.5x	1,818	1,855	1,932	278	295	311	124	186	195	3%	6%
							22%	2%	4%	15%	16%	16%	7%	10%	10%		
Bureau Veritas	4						2.4x	2.3x	2.2x	12.3x	11.2x	10.5x	16.7x	14.2x	13.1x		
SA		Dec-22	10,471	1,227	11,882	1.2x	5,012	5,197	5,451	969	1,061	1,133	713	838	905	4%	8%
							20%	4%	5%	19%	20%	21%	14%	16%	17%		
Eurofins							2.2x	2.2x	2.1x	9.9x	11.0x	9.7x	16.0x	17.1x	15.1x		
Scientific SE		Dec-22	10,433	2,513	13,056	2.1x	5,954	5,876	6,322	1,321	1,191	1,347	814	762	865	3%	1%
							6%	(1%)	8%	22%	20%	21%	14%	13%	14%		
					3,962		9.4x	10.0x	9.3x	35.3x	35.5x	32.5x	34.4x	40.8x	34.9x	1%	
Exponent, Inc.	8999	Dec-22	4,081	(119)		n/a	420	396	427	112	112	122	115	97	114		4%
							30%	(6%)	8%	27%	28%	28%	27%	24%	27%		
							2.4x	2.3x	2.2x	11.2x	10.1x	9.5x	15.7x	13.7x	12.9x		
Intertek Group plc		Dec-22	6,536	1,060	7,630	1.4x	3,193	3,376	3,539	680	757	802	485	556	592	5%	9%
							15%	6%	5%	21%	22%	23%	15%	16%	17%		
Mistras Group,							0.6x	0.6x	0.6x	6.6x	5.4x	4.4x	25.3x	12.5x	10.6x		
Inc.		Dec-22	164	185	350	2.9x	570	584	612	53	64	80	14	28	33	4%	22%
							14%	2%	5%	9%	11%	13%	2%	5%	5%		
							2.6x	2.6x	2.5x	12.7x	11.3x	10.7x	21.0x	16.5x	15.4x		
SGS SA		Dec-22	13,126	2,534	15,714	1.8x	5,962	6,077	6,361	1,239	1,386	1,463	750	953	1,018	3%	9%
							15%	2%	5%	21%	23%	23%	13%	16%	16%		
Min							0.6x	0.6x	0.6x	5.8x	5.4x	4.4x	13.1x	8.7x	8.3x	3%	1%
Mean							2.0x	1.9x	1.8x	9.9x	9.3x	8.6x	17.8x	13.8x	12.7x	4%	8%
Median							2.4x	2.3x	2.2x	11.0x	10.6x	9.7x	16.7x	14.0x	13.1x	3%	8%
Max							2.8x	2.8x	2.6x	12.7x	11.3x	10.7x	25.3x	17.1x	15.4x	5%	22%

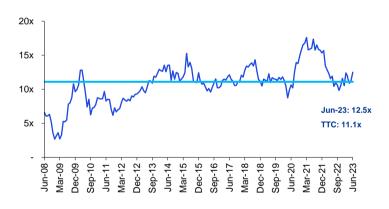
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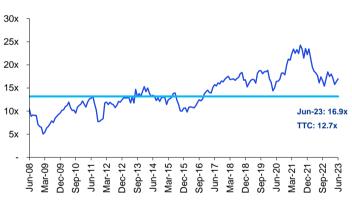
Source: CapIQ

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

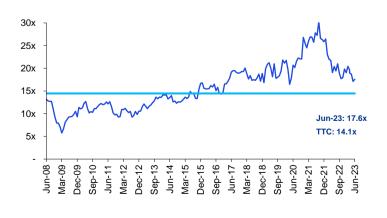
Sensors



Instrumentation - Industrials



Instrumentation - Life Sciences



Test, Inspection & Certification services



Median EBITDA — Median EBITDA through the cycle

M&A Transaction History

Sensors

Date	Target	Country	Target Description	Acquirer	Country	EV	EV/ EBITDA
May 22	OMEGA Engineering	_	Provider of a broad range of process measurement and control instrumentation to industrial	Dwyer Instruments (Arcline)		US\$525m	20.5x
Jun-21	Photon Control Inc.	(*)	Designs, manufactures and distributes a range of optical sensors and systems to measure temperature and position	MKS Instruments, Inc.		US\$312m	15.6x
Jun-21	Diversified Technical Systems		Manufacturer of data acquisition systems and sensors for product and safety testing	Vishay Precision Group		US\$47m	5.9x
Apr-21	Xirgo Technologies Inc		Provides telematics & data insight solutions for transport & logistics end markets	Sensata Technologies		US\$400m	16.0x
Jan-21	Flir Systems		Designer, manufacturer and marketer of camera systems for a wide variety of thermography and imaging applications	Teledyne Technologies Inc		US\$7,800m	18.9x
Dec-20	MTS Systems Corporation		Supplier of advanced test systems, motion simulators and precision sensors	Amphenol Corporation		US\$1.7bn	14.0x
Dec-20	OptaSense Holdings, Ltd		Fiber optic distributed monitoring solutions	Luna Innovations Incorporated		£29m	13.0x
Oct-19	Sens-Tech Ltd		Manufacturer of x-ray and light detector modules	discoverIE Group plc		£58m	5.9x
Jun-19	Sensys Networks, Inc.		Provides integrated wireless traffic data systems and traffic management solutions	TagMaster AB		US\$16m	9.4x
Jun-19	First Sensor AG		Manufacturer of sensors, detectors and emitters	TE Connectivity Ltd.	0	€308m	14.5x
Apr-19	Positek Limited		Designer and manufacturer of linear, rotary, tilt and submersible sensors	discoverIE Group plc		£4.6m	7.7x
Oct-18	Resideo Technologies		Home comfort and security solutions and wholesale distributor of security and low-voltage products	Spin off from Honeywell International Inc.		US\$3,259m	14.0x
Jan-17	Variohm Holdings Limited		Manufacturer of position, pressure and temperature sensors	discoverIE Group plc		£13.9m	7.0x
	Min						5.9x
	Mean						12.5x
	Median						14.0x
	Max						20.5x

Source: CapitalIQ Prowess, MergerMarket and KPMG intel

Instrumentation

Industrials

Date	Target	Country	Target Description	Acquirer	Country	EV	EV/ EBITDA
Apr-23	National Instruments Corporation	_	Provider of software-connected automated test and measurement systems	Emerson Electric Co		USD 8.2bn	21.5x
Nov-22	CyberOptics Corporation		Developer and manufacturer of high-precision 3D optical sensing technology solutions	Nordson Corporation		US\$380m	18.5x
Jun-22	Industrial business segment of Roper tech.		Company engaged in designing and developing software and engineered products and solutions	CD&R		US\$5.1bn	19.6x
May-22	Dytran Instruments		Manufacturer of piezoelectric, MEMS-based and digital accelerometers	Spectris		US\$82m	15.8x
Jan-22	Zetec (Roper Technologies)		Zetec is engaged in nondestructive testing (NDT) solutions for critical inspection needs	Eddyfi/NDT (Novacap)	(🌞)	US\$350m	20.6x
Aug-21	NDC Technologies Inc.		Provider of precision measurement solutions for in-line manufacturing process control	Nordson Corporation		US\$180m	13.5x
Apr-21	Concurrent Real-Time, Inc.		Supplier of real-time operating systems for hardware-in-the-loop simulation applications	Spectris Plc		US\$167m	16.0x
Mar-21	Abaco Systems Inc		Provider of mission critical embedded computing systems for aerospace, defense and industrial applications	AMETEK Inc		US\$1,350m	13.5x
Dec-20	Brüel & Kjær Vibro (Spectris Subsidary)		Supplier of machinery protection & condition monitoring systems for rotating & reciprocating industrial machinery	NSK Ltd	•	EUR180m	20.0x
Jul-20	Microwave Vision SA (52.06%)		Designs, manufactures and sells microwave test systems	Groupe HLD		EUR145m	10.2x
Feb-20	Sensit Technologies		Manufacturer of gas leak detection instruments for natural gas, fire services and industrial applications	Halma		US\$51.5m	11.7x
Feb-20	L3Harris Technologies (Security & Detection)		Provides airport and critical infrastructure screening products and other industrial automation products	Leidos Holdings		US\$1bn	13.3x
Dec-19	BTG Group Limited (Spectris Subsidiary)		Provider of integrated, highly specialised process measuring instruments for the paper industry	Voith GmbH		EUR 319m	11.5x
Oct-19	Gatan, Inc.		Manufacturer of instrumentation used to enhance the operation and performance of electron microscopes	AMETEK, Inc.		US\$925m	14.9x
Oct-19	Rudolph Technologies		Manufacturer of process control metrology and defect inspection systems used by semiconductor manufacturers	Naometrics		US\$769m	13.4x
Aug-19	3M Gas and Flame Detection	0	Manufacturer of gas and flame detection products	Teledyne Technologies		US\$230m	11.0x
Nov-18	Spectro Scientific		Supplier of oil, fuel and fluid analysis instruments to industry, military and laboratories	AMETEK, Inc.		US\$190m	16.5x
	Min						10.2x
	Mean						15.1x
	Median						14.9x
	Max						21.5x

M&A Transaction History

Instrumentation - Life Sciences

Date	Target	Country	Target Description	Acquirer	Country	EV	EV/ EBITDA
Aug-22	Frontage Clinical Services(88.1%)		Offers services in analytical testing and formulation development, drug metabolism and pharmacokinetics	Frontage Laboratories, Inc.		USD 15m	11.4x
Dec-21	Food Safety Business of 3M		Food safety business of 3M which sells test kits and other products to help foodmakers monitor sanitation & allergies	Neogen		USD 5bn	32.0x
Nov-21	SP Industries		Designer and manufacturer of high-grade biopharma processing equipment & life sciences equipment	ATS	(♣)	USD 445m	15.3x
Jul-21	Luminex Corporation		Develops, manufactures and sells biological testing technologies and products	DiaSorin S.p.A.		USD 1.8bn	19.8x
Sep-20	Advanced Instruments		Provider of scientific and analytical instruments	Patricia Industries	(GBP 608m	24.1x
Oct-19	Danaher Corporation (Life Science business)		Life Sciences business of Danaher Corporation (FortéBio, Pall-Chromatography and SoloHill)	Sartorius AG		USD 750m	20.0x
Aug-19	BioTek Instruments Inc		Design, manufacture and distribution of innovative life science instrumentation	Agilent Technologies		USD 1bn	22.0x
Feb-19	Roper Technologies (Scientific-Imaging)		Scientific Imaging business (analytical and scientific instrumentation) of Roper Technologies, Inc.	Teledyne Technologies		USD 225m	11.0x
Feb-19	GE Biopharma		Provider of instruments, consumables and software that support the workflows of drug manufacturers	Danaher		USD 21.4bn	17.0x
Dec-17	EUROIMMUN Medical Laboratory		Develops, produces and distributes devices, software and consumables for human and veterinary medical diagnostics	PerkinElmer, Inc.		EUR 1.2bn	19.2x
Sep-16	FEI Company		Supplier of instruments for nanoscale imaging, analysis and prototyping	Thermo Fisher Scientific		USD 4.4bn	19.3x
Apr-16	Newport Corporation		Supplier of technology products to scientific research, microelectronics, life and health sciences industries	MKS Instruments		USD 980m	17.5x
	Min						11.0x
	Mean						19.1x
	Median						19.3x
	Max						32.0x

Source: CapitalIQ Prowess, MergerMarket and KPMG intel

Test, Inspection & Certification services

Date	Target	Country	Target Description	Acquirer	Country	EV	EV/ EBITDA
Jun-23	Applus Services SA		Provider of testing, inspection and certification services to the infrastructure, building, energy, power and oil & gas sectors	Apollo Global Management	-	EUR 1.2bn	5.9x
Aug-21	Institute of Calibration & Technology	(•)	Provides measuring instrument calibrations, repair of dysfunctional measuring instruments	Trescal		AUD 60m	9.2x
May-21	SAI Global Assurance		Provides assurance services, including management systems certification and second party audits	Intertek Group Plc		AUD 855m	15.5x
Dec-20	SYNLAB Analytics & Services B.V.		Provides inspection, verification, testing and certification and other laboratory services	SGS SA	•	GBP 491m	16.2x
Dec-20	Millbrook (Spectris Subsidiary)		Provides vehicle test, validation and engineering services to automotive, transport, tyre and petrochemical industries	UTAC CERAM		GBP 133m	12.0x
Dec-20	QPS Evaluation Services	(*)	Product certification company for a wide range of industrial, medical and electrical & electronic (E&E) products	Applus Services S.A	£	GBP 42m	9.0x
Apr-20	LGC Group		Provider of proficiency testing schemes, genomics reagents and instrumentation, research and measurement services	Cinven Partners LLP and Astorg Partners		GBP 3.0bn	17.5x
Feb-19	Onstream Pipeline Inspection	(*)	Provider of pipeline inspection and data analytics services	MISTRAS Group		US\$190m	11.9x
Aug-18	Covance Inc.		Provider of innovative product design and product integrity services	Eurofins Scientific		US\$670m	23.6x
Aug-18	Alchemy Systems		Provider of web-based training and communication platform focusing on workplace injuries and food safety	Intertek Group Plc		US\$480m	21.8x
Jan-18	CLS		Provider of scientific laboratory and consultancy services	Spectris		GBP 163m	18.0x
Jan-18	Trescal SAS		Engaged in providing verification, calibration and measurement services	Omers Private Equity	(*)	EUR 670m	14.9x
Dec-17	EAG Laboratories		Surface analysis and materials characterisation provider delivering innovative analytical services and solutions	Eurofins Scientific		US\$780m	11.8x
Jun-17	Exova Group plc		Provider of testing, calibration and consulting services	Element Materials Technology		US\$1.06bn	12.5x
Sep-16	Millbrook Group		Vehicle test, validation and engineering service provider for the automotive markets	Spectris Plc		GBP 122m	12.5x
Apr-16	WIL Research Laboratories		Provider of safety assessment and manufacturing services to biopharmaceutical and agricultural companies	Charles River Laboratories		US\$585m	12.9x
	Min						5.9x
	Mean						14.0x
	Median						12.7x
	Max						23.6x

Source: CapitalIQ Prowess, MergerMarket and KPMG intel

KPMG's global test & measurement credentials



























































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