

Industry update Test & Measurement Q4 2021

Selected M&A highlights

- Dec 21 **3M** will separate its Food Safety business and simultaneously combine it with **Neogen** (EV/EBITDA 32.0x)
- Dec 21 **Amphenol** acquired **Halo Technology** from **Inflexion** for \$715m (EV/Revenue 2.9x)
- Dec 21 **Eurofins Scientific** acquired **GeneticLab**, a molecular biology based testing provider for diagnostics, biomarker development and drug discovery from **Trans Genic**
- Dec 21 **Trescal** acquired **Cleanroom Management International (CMI)**, which specialises in the qualification of cleanrooms, HVAC systems and thermal mapping together with associated calibration services
- Dec 21 **Trescal** acquired **Aviatronik**, a provider of calibration services for avionics equipment
- Dec 21 **ALS** acquired **MinAnalytical Laboratory Services** from **Perenti Global** for AUD 43.6m in cash and shares (EV/Revenue 2.4x)
- Dec 21 **Labcorp** acquired **Toxikon**, a contract research organisation delivering best-in-class nonclinical testing services
- Dec 21 **Sensata Technologies** acquired **Sendyne**, a provider of sensing and simulation technologies for next generation e-mobility applications
- Dec 21 **AMETEK** acquired **Alphasense**, a leading provider of gas and particulate sensors
- Nov 21 **Halma** acquired **Clayborn Labs**, a leader in thermal sample gas conditioning products
- Nov 21 **Automation Tooling Systems** acquired **SP Industries**, a designer and manufacturer of high-grade biopharma processing equipment, life sciences equipment, and lab apparatus products for US\$445 million (EV/EBITDA 15.3x)
- Nov 21 **Sensata Technologies** acquired **Spear Power Systems**, a developer of next generation lithium-ion battery storage systems, for \$130m
- Nov 21 **SGS** acquired majority stake in **Sulphur Experts**, a provider of clinical process engineering consulting, specialised testing and training
- Oct-21 **SGS** acquired **Groupe IDEATESTS**, a leading provider of clinical microbiological and in-vitro testing, and regulatory services to the cosmetics and personal care industry in France
- Oct-21 **Keysight Technologies** acquired **SCALABLE Network Technologies**, a provider of communications network simulation and modelling solutions for design, test and analysis, as well as cyber assessment and training
- Oct 21 **Sensata Technologies** acquired **SmartWitness Holdings**, an innovator of video telematics technology for commercial fleets, for \$190m
- Oct 21 **Littelfuse** acquired **Carling Technologies**, a provider of switching and circuit protection technologies, for \$315 million (EV/Revenue 1.9x)

Public company valuations Sensors













Company	Country	Year End Date	Market Cap (GBpm)	Net Debt / (Cash)	EV (GBpm)	Net debt / EBITDA (2021)	EV/Revenue Revenue growth			EV/EBITDA EBITDA %			EV/EBIT EBIT %			2 Year CAGR 2020-2022	
							2020	2021	2022	2020	2021	2022	2020	2021	2022	Sales	EBITDA
Amphenol Corporation		Dec-20	38,627	2,923	41,596	1.5x	6.6x	5.3x	5.0x	27.7x	21.8x	20.2x	32.1x	26.6x	24.5x	15%	17%
ams AG		Dec-20	3,504	1,581	4,984	1.9x	6.298	7.829	8.349	1.501	1.910	2.064	1.295	1.566	1.700		
CTS Corporation		Dec-20	874	(38)	836	n/a	2%	24%	7%	24%	24%	25%	21%	20%	20%		
discoverIE Group plc		Mar-21	972	123	1,096	2.4x	1.6x	1.1x	1.2x	7.7x	6.8x	5.6x	31.7x	18.1x	12.0x	17%	17%
Keyence Corporation		Mar-21	112,440	(6,186)	106,253	n/a	3,139	4,336	4,300	650	854	895	157	276	414		
Littelfuse, Inc.		Dec-20	5,724	(12)	5,712	n/a	98%	38%	(1%)	21%	20%	21%	5%	6%	10%		
Methode Electronics, Inc.		May-21	1,353	50	1,404	0.3x	2.7x	2.2x	2.1x	14.7x	10.1x	9.1x	23.4x	14.2x	12.7x	13%	27%
Murata Manufacturing Co., Ltd.		Mar-21	37,581	(2,307)	35,276	n/a	311	372	397	57	83	92	36	59	66		
Sensata Technologies Holding plc		Dec-20	7,220	1,696	8,916	2.5x	(12%)	20%	7%	18%	22%	23%	11%	16%	17%		
Sensirion Holding AG		Dec-20	1,675	(87)	1,584	n/a	2.4x	2.6x	2.6x	23.4x	21.5x	20.1x	44.3x	30.6x	25.8x	n/mf	8%
TE Connectivity Ltd.		Sep-21	38,968	2,504	42,521	0.9x	457	424	422	47	51	55	25	36	43		
TT Electronics plc		Dec-20	448	107	558	2.1x	(1%)	(7%)	(1%)	10%	12%	13%	5%	8%	10%		
Min							29.7x	24.3x	21.1x	56.4x	43.7x	37.2x	55.3x	44.7x	38.0x	19%	23%
Mean							3,582	4,365	5,041	1,894	2,429	2,657	1,920	2,379	2,798		
Median							(16%)	22%	15%	53%	56%	57%	54%	55%	55%		
Max							5.3x	3.8x	3.4x	24.8x	15.4x	14.5x	35.1x	19.7x	18.6x	24%	31%
							1,073	1,514	1,659	230	370	393	163	290	308		
							(7%)	41%	10%	21%	24%	24%	15%	19%	19%		
							1.8x	1.7x	1.6x	9.4x	9.5x	n/a	12.5x	13.7x	12.2x	7%	n/mf
							772	836	887	149	148	n/a	112	102	115		
							(5%)	8%	6%	19%	18%	n/a	14%	12%	13%		
							3.3x	3.2x	3.0x	12.2x	10.6x	9.5x	17.2x	15.0x	13.4x	6%	14%
							10,544	11,027	11,764	2,893	3,340	3,730	2,045	2,349	2,635		
							(9%)	5%	7%	27%	30%	32%	19%	21%	22%		
							4.0x	3.2x	2.9x	18.6x	12.9x	11.5x	29.0x	16.2x	13.5x	17%	27%
							2,231	2,805	3,041	480	689	778	307	586	663		
							(14%)	26%	8%	22%	25%	26%	14%	21%	22%		
							7.5x	7.3x	6.7x	29.7x	27.4x	30.1x	38.7x	37.2x	44.4x	6%	n/mf
							210	216	236	53	58	53	41	43	36		
							58%	3%	9%	25%	27%	22%	20%	20%	15%		
							4.5x	3.8x	3.6x	20.1x	15.7x	15.0x	26.3x	20.8x	19.2x	12%	16%
							9,445	11,179	11,833	2,114	2,714	2,831	1,619	2,039	2,209		
							(8%)	18%	6%	22%	24%	24%	17%	18%	19%		
							1.3x	1.2x	1.1x	24.2x	10.7x	9.2x	n/mf	15.8x	12.7x	8%	n/mf
							432	477	503	23	52	61	7	35	44		
							(10%)	10%	5%	5%	11%	12%	2%	7%	9%		
							1.3x	1.1x	1.1x	7.7x	5.8x	5.6x	12.5x	13.7x	12.0x	6%	8%
							3.7x	3.2x	3.0x	19.3x	14.7x	14.5x	29.0x	20.6x	19.0x	12%	20%
							3.3x	3.2x	2.9x	20.1x	12.9x	13.0x	30.3x	18.1x	13.5x	12%	17%
							7.5x	7.3x	6.7x	29.7x	27.4x	30.1x	44.3x	37.2x	44.4x	24%	31%

Note: Multiples are based on enterprise value as of 31 December 2021 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. Keyence shown for reference but removed as an outlier from all averages

Source: CapIQ

Test & Measurement - Q4 2021 Industry update











Instrumentation – Industrials

Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2021)	EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2020-2022	
							2020	2021	2022	2020	2021	2022	2020	2021	2022	Sales	EBITDA
AMETEK, Inc.		Dec-20	25,120	1,830	26,950	1.5x	8.1x 3,325 (14%)	6.6x 4,072 22%	6.0x 4,455 9%	27.2x 991 30%	22.2x 1,216 30%	20.0x 1,349 30%	32.6x 827 25%	28.1x 959 24%	24.9x 1,081 24%	16%	17%
Fortive Corporation		Dec-20	20,203	1,588	21,795	1.6x	6.4x 3,394 (1%)	5.6x 3,923 16%	5.2x 4,202 7%	27.6x 789 23%	21.6x 1,007 26%	19.7x 1,105 26%	43.6x 500 15%	33.8x 645 16%	29.0x 752 18%	11%	18%
Halma plc		Mar-21	12,121	280	12,392	0.8x	9.4x 1,323 1%	8.5x 1,452 10%	7.9x 1,576 9%	38.3x 323 24%	34.5x 359 25%	31.3x 396 25%	50.7x 245 18%	41.3x 300 21%	36.4x 341 22%	9%	11%
HORIBA, Ltd.		Dec-20	1,830	(328)	1,502	n/a	1.1x 1,328 (4%)	1.1x 1,414 7%	1.0x 1,449 2%	7.2x 208 16%	5.8x 261 18%	5.4x 281 19%	10.6x 142 11%	7.9x 190 13%	7.4x 203 14%	4%	16%
Keysight Technologies, Inc.		Oct-21	27,916	(21)	27,895	n/a	8.8x 3,172 (4%)	7.6x 3,690 16%	7.1x 3,928 6%	31.4x 889 28%	25.2x 1,105 30%	22.4x 1,243 32%	43.4x 643 20%	32.3x 862 23%	25.2x 1,108 28%	11%	18%
MKS Instruments, Inc.		Dec-20	7,134	116	7,250	0.2x	4.2x 1,707 19%	3.3x 2,177 28%	3.1x 2,344 8%	16.6x 440 26%	11.1x 651 30%	10.5x 693 30%	19.6x 369 22%	12.5x 581 27%	11.8x 616 26%	17%	25%
National Instruments Corporation		Dec-20	4,253	(66)	4,187	n/a	4.4x 942 (8%)	3.9x 1,078 14%	3.3x 1,251 16%	31.6x 132 14%	16.9x 221 21%	15.4x 272 22%	52.5x 80 8%	28.4x 159 15%	19.8x 212 17%	15%	43%
Oxford Instruments plc		Mar-21	1,515	(57)	1,457	n/a	4.6x 318 1%	4.3x 342 8%	4.0x 364 6%	23.8x 61 19%	20.4x 71 21%	19.4x 75 21%	31.5x 46 15%	24.4x 60 17%	22.6x 65 18%	7%	11%
Renishaw plc		Jun-21	3,479	(195)	3,280	n/a	6.1x 538 (1%)	5.5x 595 11%	5.1x 644 8%	27.1x 121 23%	19.4x 169 28%	16.4x 200 31%	35.9x 91 17%	25.1x 131 22%	21.7x 151 23%	9%	28%
Roper Technologies, Inc.		Dec-20	38,317	5,908	44,225	3.5x	n/mf 4,048 0%	n/mf 4,309 6%	9.8x 4,509 5%	29.9x 1,480 37%	26.2x 1,689 39%	25.0x 1,772 39%	39.2x 1,128 28%	37.9x 1,166 27%	34.5x 1,282 28%	6%	9%
Shimadzu Corporation		Mar-21	9,176	(819)	8,356	n/a	3.3x 2,570 (11%)	3.1x 2,675 4%	3.0x 2,822 5%	20.3x 412 16%	17.6x 474 18%	16.4x 509 18%	25.5x 328 13%	22.6x 370 14%	20.8x 401 14%	5%	11%
Spectris plc		Dec-20	4,052	(234)	3,818	n/a	2.9x 1,336 (18%)	2.9x 1,317 (1%)	2.8x 1,348 2%	n/mf 71 5%	14.6x 262 20%	13.6x 282 21%	n/mf (14) (1%)	17.7x 215 16%	16.3x 234 17%	0%	n/mf
Min							1.1x	1.1x	1.0x	7.2x	5.8x	5.4x	10.6x	7.9x	7.4x	0%	9%
Mean							5.4x	4.8x	4.9x	25.5x	19.8x	17.9x	35.0x	25.8x	22.5x	9%	19%
Median							4.6x	4.3x	4.5x	27.2x	19.9x	17.9x	35.9x	25.7x	22.1x	9%	17%
Max							9.4x	8.5x	9.8x	38.3x	34.5x	31.3x	52.5x	41.3x	36.4x	17%	43%

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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 (2021)	EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2020-2022	
							2020	2021	2022	2020	2021	2022	2020	2021	2022	Sales	EBITDA
Agilent Technologies, Inc.		Oct-21	35,607	976	36,583	0.7x	9.1x 4,021 0%	7.8x 4,717 17%	7.3x 5,028 7%	33.9x 1,079 27%	27.2x 1,343 28%	24.8x 1,478 29%	42.8x 854 21%	33.9x 1,081 23%	27.8x 1,318 26%	12%	17%
Bio-Rad Laboratories, Inc.		Dec-20	16,572	(823)	15,725	n/a	8.4x 1,865 7%	7.4x 2,139 15%	7.4x 2,125 (1%)	36.4x 432 23%	27.9x 564 26%	29.1x 540 25%	48.8x 322 17%	35.6x 442 21%	38.5x 408 19%	7%	12%
Bruker Corporation		Dec-20	9,398	133	9,541	0.3x	6.6x 1,456 (7%)	5.4x 1,770 22%	5.1x 1,872 6%	34.7x 275 19%	24.5x 389 22%	23.2x 412 22%	45.5x 210 14%	27.7x 344 19%	25.7x 371 20%	13%	22%
Danaher Corporation		Dec-20	173,628	16,294	192,342	2.1x	11.8x 16,322 21%	9.0x 21,438 31%	8.5x 22,738 9%	39.0x 4,937 30%	25.4x 7,585 35%	24.2x 7,943 35%	51.9x 3,708 23%	34.2x 5,628 26%	31.8x 6,055 27%	18%	27%
Judges Scientific plc		Dec-20	531	6	538	0.3x	6.7x 80 (3%)	6.1x 88 10%	5.8x 92 5%	36.0x 15 19%	27.3x 20 22%	25.2x 21 23%	54.3x 10 12%	31.3x 17 20%	28.7x 19 20%	7%	20%
Mettler-Toledo International Inc.		Dec-20	28,811	1,119	29,929	1.3x	13.2x 2,260 (0%)	11.0x 2,726 21%	10.4x 2,880 6%	n/mf 655 29%	35.7x 838 31%	33.0x 907 31%	47.7x 628 28%	38.5x 778 29%	35.1x 853 30%	13%	18%
PerkinElmer, Inc.		Jan-21	18,739	3,544	22,283	2.7x	8.1x 2,762 (4%)	6.2x 3,614 31%	7.1x 3,152 (13%)	21.1x 882 38%	17.3x 1,290 36%	25.3x 882 28%	25.4x 878 32%	18.4x 1,210 33%	27.9x 799 25%	7%	n/mf
Sartorius Aktiengesellschaft		Dec-20	31,436	1,521	33,370	1.6x	15.9x 2,093 36%	11.7x 2,853 36%	10.3x 3,235 13%	n/mf 599 29%	34.1x 979 34%	30.4x 1,099 34%	n/mf 464 22%	44.1x 756 27%	38.8x 860 27%	24%	35%
Thermo Fisher Scientific Inc.		Dec-20	194,175	7,148	201,323	0.8x	8.5x 23,588 23%	7.3x 27,514 17%	6.7x 30,119 9%	26.3x 7,669 33%	22.0x 9,164 33%	23.6x 8,622 26%	32.4x 6,206 26%	24.1x 8,361 30%	26.5x 7,583 25%	13%	5%
Waters Corporation		Dec-20	16,795	779	17,575	1.1x	10.1x 1,732 (5%)	8.6x 2,045 18%	8.1x 2,157 5%	28.5x 617 36%	23.9x 734 36%	22.8x 772 36%	32.8x 536 31%	28.7x 612 30%	27.2x 646 30%	12%	12%
Min							6.6x	5.4x	5.1x	21.1x	17.3x	22.8x	25.4x	18.4x	25.7x	7%	5%
Mean							9.9x	8.0x	7.7x	32.0x	26.5x	26.1x	42.4x	31.6x	30.8x	13%	19%
Median							8.8x	7.6x	7.3x	34.3x	26.3x	25.0x	45.5x	32.6x	28.3x	12%	18%
Max							15.9x	11.7x	10.4x	39.0x	35.7x	33.0x	54.3x	44.1x	38.8x	24%	35%

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Source: CapIQ

Test & Measurement - Q4 2021 Industry update

Test, Inspection & Certification services

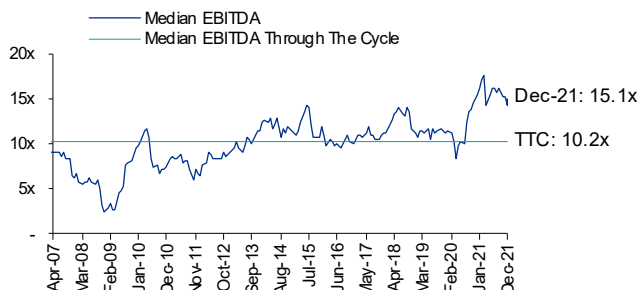
Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash)	EV (GBPm)	Net debt / EBITDA (2021)	EV/Revenue Revenue (GBPm)			EV/EBITDA EBITDA (GBPm)			EV/EBIT EBIT (GBPm)			2 Year CAGR 2020-2022	
							2020	2021	2022	2020	2021	2022	2020	2021	2022	Sales	EBITDA
ALS Limited		Mar-21	3,397	463	3,856	1.6x	3.9x	3.6x	3.3x	16.7x	13.6x	12.1x	24.6x	19.8x	17.3x	9%	18%
Applus Services, S.A.		Dec-20	970	669	1,678	2.4x	1.3x	1.1x	1.1x	9.2x	6.1x	5.6x	17.0x	11.3x	9.9x	10%	28%
Bureau Veritas SA		Dec-20	11,079	1,348	12,479	1.4x	1,298	1,480	1,579	182	274	300	99	148	169		
Eurofins Scientific SE		Dec-20	17,548	1,730	19,299	1.1x	4,122	4,192	4,425	716	941	1,008	397	680	733	4%	19%
Exponent, Inc.		Jan-21	4,492	(176)	4,316	n/a	4.0x	3.6x	3.8x	15.4x	11.9x	14.0x	23.4x	17.4x	21.9x	3%	5%
Intertek Group plc		Dec-20	9,069	700	9,800	1.1x	4,873	5,406	5,127	1,251	1,620	1,374	823	1,106	883		
Mistras Group, Inc.		Dec-20	162	186	348	3.3x	27%	11%	(5%)	26%	30%	27%	17%	20%	17%	8%	7%
SGS SA		Dec-20	18,501	2,155	20,703	1.6x	10%	8%	8%	32%	31%	31%	28%	27%	27%		
Team, Inc.		Dec-20	25	307	332	n/a	0.8x	0.7x	0.7x	9.1x	6.1x	5.1x	nmf	20.6x	13.4x	11%	33%
Min							434	493	533	38	57	68	5	17	26		
Mean							(23%)	14%	8%	9%	12%	13%	1%	3%	5%	8%	19%
Median							4.5x	4.0x	3.8x	20.4x	15.1x	14.4x	32.3x	24.5x	22.9x		
Max							4,639	5,143	5,403	1,013	1,367	1,440	641	846	902		
							(10%)	11%	5%	22%	27%	27%	14%	16%	17%		
							0.5x	n/a	n/a	7.2x	n/a	n/a	nmf	n/a	n/a	nmf	nmf
							624	n/a	n/a	46	n/a	n/a	(17)	n/a	n/a		
							(29%)	n/a	n/a	7%	n/a	n/a	(3%)	n/a	n/a		
							0.5x	0.7x	0.7x	7.2x	6.1x	5.1x	17.0x	11.3x	9.9x	3%	5%
							2.7x	2.8x	2.7x	14.0x	11.7x	11.0x	25.6x	19.0x	17.3x	7%	19%
							3.3x	3.5x	3.2x	16.1x	13.3x	12.4x	24.6x	19.8x	17.3x	8%	19%
							4.5x	4.0x	3.8x	20.4x	15.4x	14.4x	32.3x	24.5x	22.9x	11%	33%

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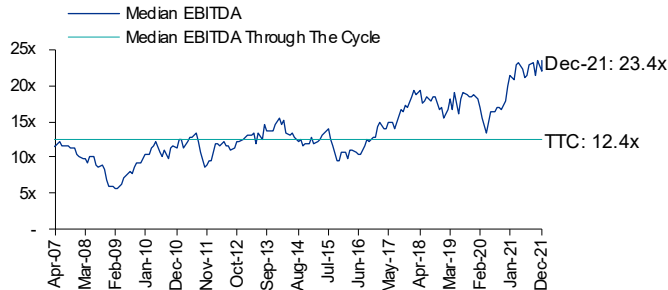
Source: CapIQ

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

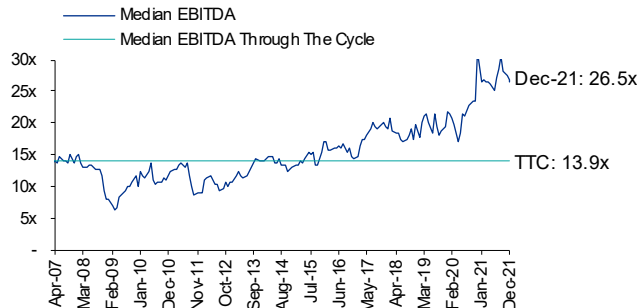
Sensors



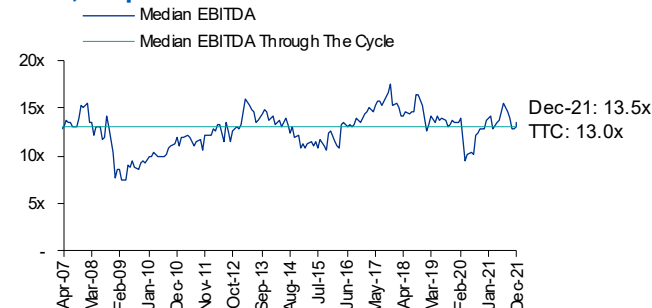
Instrumentation – Industrials



Instrumentation – Life Sciences



Test, Inspection & Certification services



Note: The companies used in the public company valuations make up the constituents of the TTC analysis, excluding Keyence and Exponent. 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 - Q4 2021 Industry update



























M&A transaction history

Sensors

Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
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		A leading 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
Fir 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
Variohm Holdings Limited		Manufacturer of position, pressure and temperature sensors	discoverIE Group plc		Jan-17	GBP 13.9m	7.0x
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
Min							5.9x
Mean							11.8x
Median							13.5x
Max							18.9x

Source: MergerMarket and KPMG intel

Instrumentation – Industrials























Target	Country	Target Description	Acquirer	Country	Date	EV	EV/EBITDA
Zetec (Roper Technologies)		Zetec is a global leader in nondestructive testing (NDT) solutions for critical inspection needs	Eddyfi/NDT (Novacap)		Aug-21	USD 350m	20.6x
NDC Technologies Inc.		A leading global 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 service, and industrial applications	Halma		Feb-20	USD 51.5m	11.7x
L3Harris Technologies, Inc. (Security & Detection Systems)		Provides airport and critical infrastructure screening products, automated tray return systems and other industrial automation products	Leidos Holdings, Inc		Feb-20	USD 1bn	13.3x
BTG Group Limited (Spectris Subsidiary)		Provider of integrated, highly specialized 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
Oxford Instruments (Industrial Analysis business)		Industrial analysis business of Oxford Instruments Plc	Hitachi High-Technologies Corp		Jul-17	GBP 80m	9.8x
Min							10.2x
Mean							14.0x
Median							13.5x
Max							20.6x

Source: MergerMarket and KPMG intel

Test & Measurement - Q4 2021 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 and allergens	Neogen		Dec-21	US 5,300m	32.0x
SP Industries		Designer and manufacturer of high-grade biopharma processing equipment, life sciences equipment, and lab apparatus products	ATS		Nov-21	USD 445m	15.3x
Luminex Corporation		Develops, manufactures, and sells biological testing technologies and products for the diagnostics, pharmaceutical, and research industries	DiaSorin S.p.A.		Jul-21	USD 1800bn	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 SoloHil)	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 businesses)		Scientific imaging businesses (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 drugs manufacturers	DanaHER		Feb-19	USD 21.4bn	17.0x
EUROMMUN 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 across a wide variety of end-markets	Intertek Group Plc		May-21	AUD 855m	15.5x
SYNLAB Analytics & Services B.V.		Provides inspection, verification, testing and certification and other laboratory services for Environmental, Food and Chemical industries	SGS SA		Dec-20	GBP 491m	16.2x
Millbrook (Spectris Subsidiary)		Provides vehicle test, validation and engineering services to customers in the 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 and 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, coaching 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 characterization 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 and markets such as tyres, defence and security	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: MergerMarket and KPMG intel

Test & Measurement - Q4 2021 Industry update

KPMG's global test & measurement credentials

 CEESI GRAFTEL <small>subsidiaries of Western energy Support and Technology)</small> acquired by Dec 2021	 HOSKIN acquired by Dec 2021	 LI-COR acquired by Battery Dec 2021	 AlphaSense acquired by AMETEK Dec 2021	 TOXIKON <small>RIGHT FROM THE START</small> acquired by labcorp Dec 2021	 Goodfellow acquired by Battery Sep 2021
 Qualitech acquired by euromins Jul 2021	 Cherney College <small>Cultivating Knowledge Through Training & Education</small> acquired by Matrix Jun 2021	 GRL <small>GRANITE RIVER LAB</small> acquired by SFW <small>CAPITAL PARTNERS</small> May 2021	 SI <small>PHARMACY GROUP</small> portfolio company of Apax <small>PARTNERS</small> acquired by API <small>Group</small> Oct 2020	 FRSA <small>FRUIT & VEGETABLES ASSOCIATION</small> acquired by BUNZL Nov 2019	 Dynamic Systems Inc. acquired by VPG Nov 2019
 SK AeroSafety Group portfolio company of Apax <small>PARTNERS</small> acquired by LEVINE LEICHTMAN <small>ADVISOR PARTNERS</small> Jan 2019	 Labstat acquired by WARBURG PINCUS Jun 2018	 AMETEK acquired by AMETEK Dec 2017	 RAMBOLL Analytics laboratory business in Finland & Estonia acquired by euromins Apr 2017	 EPL <small>ARCHIVES</small> acquired by VWR <small>part of wacker</small> Mar 2017	 TMC acquired by May 2016
 DTS <small>FOOD ASSURANCE</small> acquired by May 2016	 CONTROLTEC acquired by DELPHI Nov 2015	 DEFIANCE <small>Technology for Business Excellence</small> acquired by Exova Sep 2013	 nolek acquired by Indutrade Dec 2012	 Labstat acquired by ALARIS <small>ROYALTY CORP</small> Jun 2012	 sebaKMT acquired by Megger Jun 2012
 AcmeLabs acquired by Feb 2012	 spectris acquired by Sixnet Oct 2011	 STORK Materials Testing subsidiary acquired by May 2011	 LGC acquired by Bridgepoint Feb 2010	 Bodycote acquired by CLAYTON DUBILIER & RICE Oct 2008	 QSA GLOBAL acquired by ITW Jul 2008

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