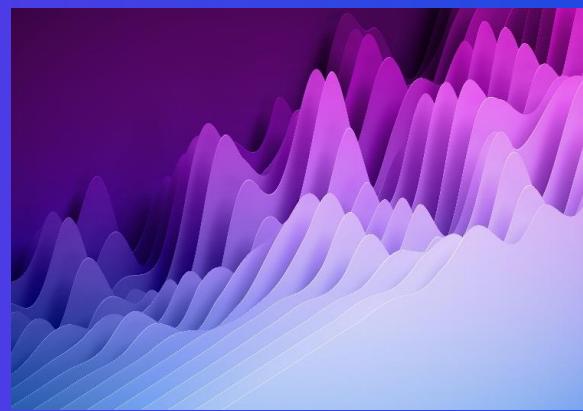


# Test & Measurement

## Q3 2022 Industry Update

October 2022



### Selected M&A highlights

Sep 22:	Element Materials Technology Group acquired National Technical Systems, a US based provider of qualification testing, inspection & certification services to variety of industrial end markets	Aug 22:	Nordson agreed to acquire CyberOptics, a US based provider of process yield and through-put improvement solutions for the global electronic assembly and semiconductor capital equipment markets (EV/EBITDA: 18.5x)
Sep 22:	Trescal acquired Metrosenzer, a Romania based company which offers metrological verification, calibration, maintenance and scale repair services	Jul 22:	SGS acquired proDERM Institute for Applied Dermatological Research a Germany based provider of advanced clinical testing solutions for cosmetics, personal care and medical products
Sep 22:	Indutrade acquired CaTeC Meetinstrumentatie, a Netherlands based climate measurement technology company	Jul 22:	Teledyne Technologies acquired NI Acoustics, a Finland based company that provides comprehensive sound-based ultrasonic maintenance solutions for detecting and analyzing industrial defects (KPMG M&A advised NI Acoustics on the transaction)
Sep 22:	Socotec acquired CAG Groep, the Netherlands based provider of building testing, inspection and certification services	Jul 22:	Rion acquired Norsonic, the Norway based manufacturer of sound and vibration instruments and related software
Aug 22:	Eurofins Scientific acquired Analisis Biologicos Biotalde, a Spain based company engaged in bio-analytical testing	Jul 22:	Humanetics, a Bridgepoint investment, acquired ATD-LabTech, a Germany based company that offers Anthropomorphic Test Device (ATD) certification equipment, lab management software and dummy certification services
Aug 22:	Oakley Capital acquired a minority stake in Phenna Group, a UK based provider of testing, inspection, certification and compliance services. In parallel, Oakley has also acquired CTS Group, a UK based provider of testing and inspection services focused on the infrastructure market. CTS Group will become part of Phenna Group upon completion of both the transactions	Jul 22:	SGS acquired Silver State Analytical Laboratories, a US based company that provides analytical and microbiological testing solutions
Aug 22:	Axel Johnson acquired Regal Components, a Sweden based company engaged in the development & production of sensors and electric drive systems for machine and vehicle manufacturers	Jul 22:	Aptasic acquired Bluetest Testservice, a Germany based company that provides semiconductor testing services
Aug 22:	AEA Investors acquired Burke Porter Group, a US based designer of automated diagnostic, testing and production solutions serving life science and specialty industrial end markets, for US\$1.1bn	Jul 22:	AlpHa Measurement Solutions acquired Fluorometrics Instruments, a US based company that designs, develops, and manufactures fluorescence based optical chemical sensor systems and fiber optic chemical sensors
Aug 22:	Agilent Technologies acquired Polymer Standards Service, a Germany based provider of hardware and software solutions used in defining the makeup and creation of molecular structures	Jul 22:	Kiwa Deutschland acquired MPA Dresden, a Germany based laboratory testing business focused upon fire extinguisher testing and inspection services
Aug 22:	FT System (Antares Vision Group) acquired Packital, an Italy based company engaged in designing and producing inspection and control systems including checkweighers, metal detectors & X-rays		

### Public company valuations

#### Sensors

Company	Country	Year End Date	Market Cap (GBPm)	Net Debt / (Cash) (GBPm)	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	
Amphenol Corporation	USA	Dec-21	35,744	2,903	38,712	1.1x	4.8x	3.5x	3.4x	19.5x	14.2x	13.4x	23.7x	17.0x	16.3x	19% 21%
ams-OSRAM AG	Germany	Dec-21	1,492	1,685	3,156	2.1x	0.7x	0.7x	0.8x	4.7x	3.9x	3.8x	48.0x	10.2x	10.5x	(3%) 11%
CTS Corporation	USA	Dec-21	1,191	14	1,205	0.1x	3.2x	2.3x	2.1x	9.5x	8.8x	8.8x	22.3x	12.5x	11.7x	23% 33%
discoverE Group plc	UK	Mar-22	617	51	669	0.9x	1.9x	1.6x	1.6x	13.5x	11.7x	11.1x	26.5x	15.9x	13.9x	9% 10%
Keyence Corporation	Japan	Mar-22	72,055	(6,177)	65,878	n/a	14.6x	12.7x	11.6x	26.1x	22.6x	20.6x	22.2x	23.1x	21.0x	12% 13%
Littelfuse, Inc.	USA	Jan-22	4,414	103	4,517	0.2x	2.4x	1.9x	1.9x	9.2x	8.2x	7.7x	11.0x	10.4x	9.9x	15% 10%
Methode Electronics, Inc.	USA	Apr-22	1,219	61	1,280	0.4x	1.4x	1.2x	1.2x	8.6x	7.7x	6.8x	12.8x	12.1x	10.6x	9% 13%
Murata Manufacturing Co., Ltd.	Japan	Mar-22	25,903	(2,011)	23,894	n/a	2.2x	2.0x	1.9x	6.9x	6.5x	6.1x	8.1x	9.1x	8.5x	5% 7%
Sensata Technologies Holding plc	USA	Dec-21	5,194	2,211	7,406	2.7x	2.6x	2.1x	1.9x	11.1x	9.0x	8.1x	15.3x	10.7x	9.8x	16% 17%
Sensirion Holding AG	Switzerland	Dec-21	1,157	(99)	1,054	n/a	4.5x	3.5x	3.2x	14.8x	13.8x	14.1x	17.6x	17.0x	18.5x	18% 3%
TE Connectivity Ltd.	USA	Sep-21	31,677	2,752	34,513	0.8x	3.1x	2.4x	2.3x	12.7x	9.7x	9.2x	15.4x	12.8x	12.1x	17% 17%
TT Electronics plc	UK	Dec-21	247	142	391	2.4x	0.8x	0.7x	0.7x	8.6x	6.6x	5.8x	11.0x	8.8x	7.5x	11% 22%
Min							0.7x	0.7x	0.7x	4.7x	3.9x	3.8x	8.1x	8.8x	7.5x	5% 3%
Mean							2.5x	2.0x	1.9x	12.6x	10.3x	9.6x	19.5x	13.3x	12.5x	14% 15%
Median							2.4x	2.0x	1.9x	11.9x	9.2x	8.4x	16.5x	12.3x	11.1x	15% 13%
Max							4.8x	3.5x	3.4x	26.1x	22.6x	20.6x	48.0x	23.1x	21.0x	23% 33%

Note: Multiples are based on enterprise value as of 30 September 2022 and historical and forecast sales, EBITDA and EBIT, calendarised to 31 December. "nfm": not meaningful; "n/a": not available. 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

## 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	2021	2022	2023	EBITDA (GBPm)	EBITDA %	2021	2022	2023
AMETEK, Inc.	USA	Dec-21	23,366	1,916	25,282	1.2x	6.2x	4.7x	4.5x	20.5x	15.2x	14.4x	25.6x	19.1x	17.9x	18% 19%
							4,096	5,434	5,672	1,233	1,661	1,751	987	1,323	1,411	
							23%	33%	4%	30%	31%	31%	24%	24%	25%	
Fortive Corporation	USA	Dec-21	18,605	2,493	21,102	1.9x	5.4x	4.1x	3.9x	21.3x	15.8x	14.8x	31.5x	23.4x	20.7x	19% 20%
							3,881	5,208	5,454	992	1,335	1,426	670	901	1,019	
							14%	34%	5%	26%	26%	26%	17%	17%	19%	
Halma plc	UK	Mar-22	7,740	275	8,007	0.7x	5.4x	4.8x	4.5x	22.7x	19.9x	18.2x	29.3x	23.4x	20.9x	10% 12%
							1,474	1,661	1,793	352	402	440	273	342	384	
							11%	13%	8%	24%	24%	25%	19%	21%	21%	
HORIBA, Ltd.	Japan	Dec-21	1,469	(375)	1,095	n/a	0.8x	0.7x	0.7x	4.0x	3.5x	3.7x	4.9x	4.7x	4.9x	5% 4%
							1,439	1,562	1,571	273	310	297	222	233	224	
Keysight Technologies, Inc.	USA	Oct-21	25,250	145	25,395	0.1x	6.9x	5.2x	4.9x	23.2x	16.0x	15.2x	28.1x	17.9x	16.8x	18% 24%
							3,663	4,866	5,135	1,094	1,586	1,674	904	1,422	1,512	
							8%	9%	1%	19%	20%	19%	15%	15%	14%	
MKS Instruments, Inc.	USA	Dec-21	4,931	(44)	4,887	n/a	2.2x	1.5x	1.2x	7.6x	5.7x	4.5x	8.8x	6.6x	5.1x	37% 29%
							2,178	3,230	4,061	647	851	1,077	558	741	949	
							28%	48%	26%	30%	26%	27%	26%	23%		
National Instruments Corporation	USA	Dec-21	4,481	340	4,822	1.2x	4.4x	3.2x	2.9x	26.9x	17.3x	13.7x	43.8x	18.0x	14.4x	24% 40%
							1,085	1,510	1,658	179	279	353	110	268	336	
							15%	39%	10%	17%	18%	21%	10%	18%	20%	
Oxford Instruments plc	UK	Mar-22	1,029	(68)	962	n/a	2.7x	2.5x	2.4x	15.2x	12.8x	11.7x	19.5x	15.1x	13.4x	6% 14%
							355	381	397	63	75	82	49	64	72	
							12%	7%	4%	18%	20%	21%	14%	17%	18%	
Renishaw plc	UK	Jun-22	2,559	(237)	2,301	n/a	3.7x	3.3x	3.2x	14.0x	11.8x	11.0x	17.0x	14.9x	14.3x	7% 13%
							619	688	715	165	195	209	135	154	161	
							15%	11%	4%	27%	28%	29%	22%	22%		
Roper Technologies, Inc.	USA	Dec-21	34,215	3,767	37,982	1.9x	8.9x	8.1x	7.7x	22.6x	19.6x	18.2x	31.9x	28.9x	26.5x	8% 11%
							4,267	4,696	4,945	1,683	1,939	2,088	1,191	1,314	1,432	
							20%	10%	5%	39%	41%	42%	28%	28%	29%	
Shimadzu Corporation	Japan	Mar-22	6,936	(890)	6,046	n/a	2.3x	2.2x	2.0x	12.6x	11.7x	11.0x	13.4x	14.7x	13.7x	6% 7%
							2,629	2,811	2,951	478	516	550	450	412	441	
							2%	7%	5%	18%	18%	19%	17%	15%	15%	
Spectris plc	UK	Dec-21	2,879	171	3,046	0.7x	2.4x	2.4x	2.3x	13.4x	12.5x	11.6x	17.5x	14.6x	13.4x	1% 8%
							1,292	1,249	1,323	228	244	263	174	209	227	
							(3%)	(3%)	6%	18%	20%	20%	13%	17%	17%	
Min							0.8x	0.7x	0.7x	4.0x	3.5x	3.7x	4.9x	4.7x	4.9x	1% 4%
Mean							4.3x	3.6x	3.4x	17.0x	13.5x	12.3x	22.6x	16.8x	15.2x	13% 17%
Median							4.1x	3.3x	3.1x	17.9x	14.0x	12.7x	22.6x	16.5x	14.3x	9% 13%
Max							8.9x	8.1x	7.7x	26.9x	19.9x	18.2x	43.8x	28.9x	26.5x	37% 40%

Note: Multiples are based on enterprise value as of 30 September 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.

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

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	2021	2022	2023	EBITDA (GBPm)	EBITDA %	2021	2022	2023
Agilent Technologies, Inc.	USA	Oct-21	32,293	1,640	33,933	0.9x	7.3x	5.5x	5.2x	25.4x	18.5x	17.2x	29.8x	20.6x	19.2x	18% 22%
							4,672	6,131	6,509	1,334	1,831	1,969	1,138	1,644	1,764	
							10%	31%	6%	29%	30%	30%	24%	27%	27%	
Bio-Rad Laboratories, Inc.	USA	Dec-21	11,124	(474)	10,650	n/a	4.9x	4.2x	3.9x	19.5x	16.8x	15.3x	25.5x	21.7x	19.5x	12% 13%
							2,158	2,562	2,697	545	636	695	418	491	547	
							16%	19%	5%	25%	25%	26%	19%	19%	20%	
Bruker Corporation	USA	Dec-21	7,054	377	7,448	0.7x	4.2x	3.3x	3.1x	18.5x	14.1x	13.1x	23.2x	16.6x	15.3x	15% 19%
							1,786	2,253	2,365	402	526	569	321	450	486	
							23%	26%	5%	23%	23%	24%	16%	20%	21%	
Danaher Corporation	USA	Dec-21	168,620	14,279	184,292	1.5x	8.5x	6.7x	6.6x	23.5x	18.8x	18.4x	29.9x	24.8x	24.2x	13% 13%
							21,752	27,442	27,832	7,859	9,791	9,993	6,158	7,444	7,626	
							33%	26%	1%	36%	36%	36%	28%	27%	27%	
Judges Scientific plc	UK	Dec-21	464	27	491	0.9x	5.4x	4.3x	3.9x	24.6x	16.4x	13.9x	32.3x	17.7x	15.1x	17% 33%
							91	114	125	20	30	35	15	28	33	
							14%	25%	10%	22%	26%	28%	17%	24%	26%	
Mettler-Toledo International Inc.	USA	Dec-21	21,897	1,497	23,394	1.3x	8.5x	6.6x	6.4x	28.4x	20.6x	19.2x	30.8x	22.3x	21.3x	16% 22%
							2,746	3,533	3,672	824	1,134	1,219	758	1,049	1,096	
							22%	29%	4%	30%	32%	33%	28%	30%	30%	
PerkinElmer, Inc.	USA	Jan-22	13,631	3,583	17,214	3.1x	5.0x	4.3x	4.0x	16.0x	15.1x	13.6x	16.5x	16.7x	15.2x	12% 8%
							3,418	3,989	4,307	1,076	1,144	1,265	1,044	1,030	1,130	
							(8%)	17%	8%	31%	29%	29%	31%	26%	26%	
Sartorius Aktiengesellschaft	Germany	Dec-21	20,051	1,616	22,161	1.3x	7.6x	6.1x	5.4x	23.2x	17.9x	16.0x	28.2x	22.2x	19.9x	19% 20%
							2,897	3,662	4,077	957	1,240	1,384	786	998	1,114	
							38%	26%	11%	33%	34%	34%	27%	27%		
Thermo Fisher Scientific Inc.	USA	Dec-21	178,330	23,584	202,062	2.1x	7.0x	5.2x	5.1x	20.8x	18.4x	17.7x	26.2x	20.7x	20.0x	17% 9%
							28,958	38,768	39,959	9,704	10,972	11,445	7,710	9,776	10,090	
							23%	34%	3%	34%	28%	29%	27%	25%	25%	
Waters Corporation	USA	Dec-21	14,483	956	15,439	1.0x	7.5x	5.9x	5.6x	21.1x	16.3x	15.5x	24.8x	19.4x	18.4x	16% 17%
							2,057	2,629	2,764	733	945	995	623	797	840	
							19%	28%	5%	36%	36%	36%	30%	30%	30%	
Min							4.2x	3.3x	3.1x	16.0x	14.1x	13.1x	16.5x	16.6x	15.1x	12% 8%
Mean							6.6x	5.2x	4.9x	22.1x	17.3x	16.0x	26.7x	20.3x	18.8x	15

## Test, Inspection & Certification services

Company	Country	Year End	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	2021	2022	2023	EBITDA (GBPm)	EBITDA %	2021	2022	2023	Sales
ALS Limited	UK	Mar-22	2,835	636	3,340	1.9x	2.9x	2.5x	2.3x	12.4x	9.8x	8.8x	20.1x	13.0x	11.6x	13%	19%
							1,155	1,354	1,466	269	341	379	167	256	287		
Applus Services, S.A.	Spain	Dec-21	686	741	1,471	2.7x	1.0x	0.9x	0.8x	6.3x	5.4x	5.1x	14.0x	8.8x	8.2x	10%	11%
							1,492	1,728	1,812	235	273	290	105	166	180		
Bureau Veritas SA	France	Dec-21	9,145	1,288	10,495	1.3x	2.5x	2.2x	2.1x	12.5x	10.6x	10.0x	17.2x	13.6x	12.7x	10%	12%
							4,184	4,860	5,106	840	989	1,045	610	773	825		
Eurofins Scientific SE	Luxembourg	Dec-21	10,348	2,260	12,664	1.6x	2.2x	2.1x	2.1x	8.0x	8.9x	9.0x	11.1x	12.8x	13.2x	3%	(6%)
							5,642	5,905	5,933	1,578	1,428	1,406	1,139	992	959		
Exponent, Inc.	USA	Dec-21	4,022	(124)	3,898	n/a	12.1x	9.4x	8.8x	42.6x	30.6x	28.4x	47.5x	31.4x	32.4x	18%	23%
							321	415	444	92	127	137	82	124	120		
Intertek Group plc	UK	Dec-21	5,973	1,191	7,201	1.7x	2.6x	2.3x	2.2x	11.5x	10.1x	9.3x	16.2x	13.8x	12.7x	10%	11%
							2,786	3,161	3,349	624	712	775	445	522	569		
Mistras Group, Inc.	USA	Dec-21	119	195	314	2.8x	0.6x	0.5x	0.5x	6.2x	4.5x	4.0x	19.3x	13.7x	11.5x	16%	25%
							500	635	668	51	71	79	16	23	27		
SGS SA	Switzerland	Dec-21	14,557	2,589	17,208	1.8x	3.3x	2.8x	2.7x	14.7x	11.9x	11.4x	22.8x	17.1x	16.1x	11%	14%
							5,189	6,165	6,420	1,168	1,443	1,514	756	1,005	1,066		
Min							0.6x	0.5x	0.5x	6.2x	4.5x	4.0x	11.1x	8.8x	8.2x	3%	11%
Mean							2.2x	1.9x	1.8x	10.2x	8.7x	8.2x	17.2x	13.3x	12.3x	10%	15%
Median							2.5x	2.2x	2.1x	11.5x	9.8x	9.0x	17.2x	13.6x	12.7x	10%	13%
Max							3.3x	2.8x	2.7x	14.7x	11.9x	11.4x	22.8x	17.1x	16.1x	16%	25%

Note: Multiples are based on enterprise value as of 30 September 2022 and historical and forecast sales, EBITDA and EBIT, calendarised to 31 December. "n/mf": not meaningful; "n/a": not available. 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

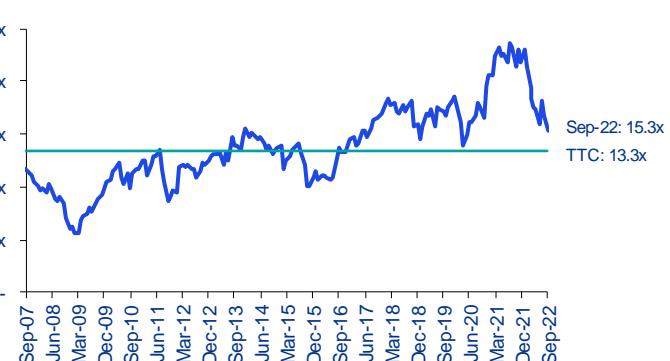
Source: CapiQ

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

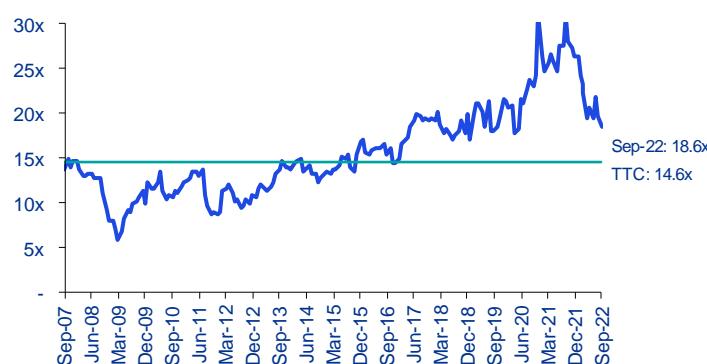
### Sensors



### 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	EBITDA
May 22	OMEGA Engineering	USA	Provider of a broad range of process measurement and control instrumentation to industrial	Dwyer Instruments (Arcline)	USA	US\$525m	20.5x
Jun-21	Photon Control Inc.	Canada	Designs, manufactures and distributes a range of optical sensors and systems to measure temperature and position	MKS Instruments, Inc.	USA	US\$312m	15.6x
Jun-21	Diversified Technical Systems	USA	Manufacturer of data acquisition systems and sensors for product and safety testing	Vishay Precision Group	USA	US\$47m	5.9x
Apr-21	Xirgo Technologies Inc	USA	Provides telematics & data insight solutions for transport & logistics end markets	Sensata Technologies	UK	US\$400m	16.0x
Jan-21	Flir Systems	USA	Designer, manufacturer and marketer of camera systems for a wide variety of thermography and imaging applications	Teledyne Technologies Inc	USA	US\$7,800m	18.9x
Dec-20	MTS Systems Corporation	USA	Supplier of advanced test systems, motion simulators and precision sensors	Amphenol Corporation	USA	US\$1.7bn	14.0x
Dec-20	OptaSense Holdings, Ltd	UK	Fiber optic distributed monitoring solutions	Luna Innovations Incorporated	USA	£29m	13.0x
Oct-19	Sens-Tech Ltd	UK	Manufacturer of x-ray and light detector modules	discoverIE Group plc	UK	£58m	5.9x
Jun-19	Sensys Networks, Inc.	USA	Provides integrated wireless traffic data systems and traffic management solutions	TagMaster AB	Sweden	US\$16m	9.4x
Jun-19	First Sensor AG	Germany	Manufacturer of sensors, detectors and emitters	TE Connectivity Ltd.	Switzerland	€308m	14.5x
Apr-19	Positek Limited	UK	Designer and manufacturer of linear, rotary, tilt and submersible sensors	discoverIE Group plc	UK	£4.6m	7.7x
Oct-18	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	US\$3,259m	14.0x
Jan-17	Variohm Holdings Limited	UK	Manufacturer of position, pressure and temperature sensors	discoverIE Group plc	UK	£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	EBITDA
Aug-22	CyberOptics Corporation	USA	Developer and manufacturer of high-precision 3D optical sensing technology solutions	Nordson Corporation	USA	US\$380m	18.5x
Jun-22	Industrial business segment of Roper tech.	USA	Company engaged in designing and developing software and engineered products and solutions	CD&R	USA	US\$5.1bn	19.6x
May-22	Dytran Instruments	USA	Manufacturer of piezoelectric, MEMS-based and digital accelerometers	Spectris	UK	US\$82m	15.8x
Jan-22	Zetec (Roper Technologies)	USA	Zetec is engaged in nondestructive testing (NDT) solutions for critical inspection needs	Eddyfi/NDT (Novacap)	Canada	US\$350m	20.6x
Aug-21	NDC Technologies Inc.	USA	Provider of precision measurement solutions for in-line manufacturing process control	Nordson Corporation	USA	US\$180m	13.5x
Apr-21	Concurrent Real-Time, Inc.	USA	Supplier of real-time operating systems for hardware-in-the-loop simulation applications	Spectris Plc	UK	US\$167m	16.0x
Mar-21	Abaco Systems Inc	USA	Provider of mission critical embedded computing systems for aerospace, defense and industrial applications	AMETEK Inc	USA	US\$1,350m	13.5x
Dec-20	Brüel & Kjær Vibro (Spectris Subsidiary)	Germany	Supplier of machinery protection & condition monitoring systems for rotating & reciprocating industrial machinery	NSK Ltd	Japan	€180m	20.0x
Jul-20	Microwave Vision SA (52.06%)	France	Designs, manufactures and sells microwave test systems	Groupe HLD	France	€145m	10.2x
Feb-20	Sensit Technologies	USA	Manufacturer of gas leak detection instruments for natural gas, fire services and industrial applications	Halma	UK	US\$51.5m	11.7x
Feb-20	L3Harris Technologies (Security & Detection)	USA	Provides airport and critical infrastructure screening products and other industrial automation products	Leidos Holdings	USA	US\$1bn	13.3x
Dec-19	BTG Group Limited (Spectris Subsidiary)	UK	Provider of integrated, highly specialised process measuring instruments for the paper industry	Voith GmbH	Germany	€319m	11.5x
Oct-19	Gatan, Inc.	USA	Manufacturer of instrumentation used to enhance the operation and performance of electron microscopes	AMETEK, Inc.	USA	US\$925m	14.9x
Oct-19	Rudolph Technologies	USA	Manufacturer of process control metrology and defect inspection systems used by semiconductor manufacturers	Naometrics	USA	US\$769m	13.4x
Aug-19	3M Gas and Flame Detection	France	Manufacturer of gas and flame detection products	Teledyne Technologies	USA	US\$230m	11.0x
Nov-18	Spectro Scientific	USA	Supplier of oil, fuel and fluid analysis instruments to industry, military and laboratories	AMETEK, Inc.	USA	US\$190m	16.5x
Min							10.2x
Mean							15.0x
Median							14.2x
Max							20.6x

Source: CapitalIQ Prowess, MergerMarket and KPMG intel

## M&A Transaction History

### Instrumentation – Life Sciences

Date	Target	Country	Target Description	Acquirer	Country	EV	EBITDA
Aug-22	Frontage Clinical Services(88.1%)	USA	Offers services in analytical testing and formulation development, drug metabolism and pharmacokinetics	Frontage Laboratories, Inc.	USA	US\$15m	11.4x
Dec-21	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	US\$5.3bn	32.0x
Nov-21	SP Industries	USA	Designer and manufacturer of high-grade biopharma processing equipment & life sciences equipment	ATS	Canada	US\$445m	15.3x
Jul-21	Luminex Corporation	USA	Develops, manufactures and sells biological testing technologies and products	DiaSorin S.p.A.	USA	US\$1.8bn	19.8x
Sep-20	Advanced Instruments	USA	Provider of scientific and analytical instruments	Patricia Industries	Sweden	£608m	24.1x
Oct-19	Danaher Corporation (Life Science business)	USA	Life Sciences business of Danaher Corporation (FortéBio, Pall-Chromatography and SoloHill)	Sartorius AG	USA	US\$750m	20.0x
Aug-19	BioTek Instruments Inc	USA	Design, manufacture and distribution of innovative life science instrumentation	Agilent Technologies	USA	US\$1.17bn	22.0x
Feb-19	Roper Technologies (Scientific-Imaging)	USA	Scientific Imaging business (analytical and scientific instrumentation) of Roper Technologies, Inc.	Teledyne Technologies	USA	US\$225m	11.0x
Feb-19	GE Biopharma	USA	Provider of instruments, consumables and software that support the workflows of drug manufacturers	Danaher	USA	US\$21.4bn	17.0x
Dec-17	EUROIMMUN Medical Laboratory	Germany	Develops, produces and distributes devices, software and consumables for human and veterinary medical diagnostics	PerkinElmer, Inc.	USA	€1.2bn	19.2x
Sep-16	FEI Company	USA	Supplier of instruments for nanoscale imaging, analysis and prototyping	Thermo Fisher Scientific	USA	US\$4.4bn	19.3x
Apr-16	Newport Corporation	USA	Supplier of technology products to scientific research, microelectronics, life and health sciences industries	MKS Instruments	USA	US\$980m	17.5x
	Min						11.0x
	Mean						19.4x
	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	EBITDA
Aug-21	Institute of Calibration & Technology	South Korea	Provides measuring instrument calibrations, repair of dysfunctional measuring instruments	Trescal	France	AUD 60m	9.2x
May-21	SAI Global Assurance	UK	Provides assurance services, including management systems certification and second party audits	Intertek Group Plc	UK	AUD 855m	15.5x
Dec-20	SYNLAB Analytics & Services B.V.	Germany	Provides inspection, verification, testing and certification and other laboratory services	SGS SA	Switzerland	£491m	16.2x
Dec-20	Millbrook (Spectris Subsidiary)	UK	Provides vehicle test, validation and engineering services to automotive, transport, tyre and petrochemical industries	UTAC CERAM	France	£133m	12.0x
Dec-20	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	€42m	9.0x
Apr-20	LGC Group	UK	Provider of proficiency testing schemes, genomics reagents and instrumentation, research and measurement services	Cinven Partners LLP and Astorg Partners	UK	£3.0bn	17.5x
Feb-19	Onstream Pipeline Inspection	Canada	Provider of pipeline inspection and data analytics services	MISTRAS Group	USA	US\$190m	11.9x
Aug-18	Covance Inc.	USA	Provider of innovative product design and product integrity services	Eurofins Scientific	Netherlands	US\$670m	23.6x
Aug-18	Alchemy Systems	USA	Provider of web-based training and communication platform focusing on workplace injuries and food safety	Intertek Group Plc	UK	US\$480m	21.8x
Jan-18	CLS	UK	Provider of scientific laboratory and consultancy services	Spectris	UK	£163m	18.0x
Jan-18	Trescal SAS	France	Engaged in providing verification, calibration and measurement services	Omers Private Equity	Canada	€670m	14.9x
Dec-17	EAG Laboratories	USA	Surface analysis and materials characterisation provider delivering innovative analytical services and solutions	Eurofins Scientific	Netherlands	US\$780m	11.8x
Jun-17	Exova Group plc	UK	Provider of testing, calibration and consulting services	Element Materials Technology	UK	US\$1.06bn	12.5x
Sep-16	Millbrook Group	UK	Vehicle test, validation and engineering service provider for the automotive markets	Spectris Plc	UK	£122m	12.5x
Apr-16	WIL Research Laboratories	USA	Provider of safety assessment and manufacturing services to biopharmaceutical and agricultural companies	Charles River Laboratories	USA	US\$585m	12.9x
	Min						9.0x
	Mean						14.6x
	Median						12.9x
	Max						23.6x

Source: CapitalIQ Prowess, MergerMarket and KPMG intel

## KPMG's global test & measurement credentials

  <p>acquired by</p>  <p>Aug 2022</p>	  <p>(subsidiaries of Western energy Support and Technology)</p> <p>acquired by</p>  <p>Dec 2021</p>	  <p>acquired by</p>  <p>Dec 2021</p>	  <p>acquired by</p>  <p>Dec 2021</p>	  <p>acquired by</p>  <p>Dec 2021</p>	  <p>acquired by</p>  <p>Dec 2021</p>
  <p>acquired by</p>  <p>Sep 2021</p>	  <p>acquired by</p>  <p>Jul 2021</p>	  <p>acquired by</p>  <p>Jun 2021</p>	  <p>acquired by</p>  <p>May 2021</p>	  <p>portfolio company of</p>  <p>acquired by</p> <p>Oct 2020</p>	  <p>acquired by</p>  <p>Nov 2019</p>
  <p>acquired by</p>  <p>Nov 2019</p>	  <p>portfolio company of</p>  <p>acquired by</p>  <p>Jan 2019</p>	  <p>acquired by</p>  <p>Jun 2018</p>	  <p>acquired by</p>  <p>Analytics laboratory business in Finland &amp; Estonia acquired by</p>  <p>Apr 2017</p>	  <p>acquired by</p> <p>Mar 2017</p>	  <p>acquired by</p>  <p>part of vantor</p> <p>Mar 2017</p>
  <p>acquired by</p>  <p>May 2016</p>	  <p>FOOD ASSURANCE</p> <p>acquired by</p>  <p>AsureQuality</p> <p>May 2016</p>	  <p>acquired by</p>  <p>Nov 2015</p>	  <p>Technology for Business Excellence</p> <p>acquired by</p>  <p>Sep 2013</p>	  <p>acquired by</p>  <p>Dec 2012</p>	  <p>acquired by</p>  <p>Jun 2012</p>
  <p>acquired by</p>  <p>Jun 2012</p>	  <p>acquired by</p>  <p>Feb 2012</p>	  <p>acquired by</p>  <p>Oct 2011</p>	  <p>Materials Testing subsidiary acquired by</p>  <p>May 2011</p>	  <p>acquired by</p>  <p>Feb 2010</p>	  <p>Materials Testing division acquired by</p>  <p>Oct 2008</p>

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