

InsiderInsights Ratings of Companies with Open-Market Form 4 Purchases & Sales Filed at the SEC on the date above.

Sorted by: Insider Rating, then Total Transaction Value.

See last page for the Key to Ratings, Titles & Transaction Type codes.

Generated with Special Screens tool at www.InsiderInsights.com, New York, NY (212) 784-6860.

Ratings of Latest Insider Purchases

				Total				Latest	Ave.		Mkt	10-Day
Insider	Rating		Trans	Purch	Shares			Trans	Purch	Recent	Cap	Ave Vol
Rating*	Date Company	Ticker	Type(s)*	Value	Bought	# Ins	siders - Title(s)*	Date	Price	Price	(mm)	(m)
+3	11/20/18 Platform Specialty Pr	od PAH	В	\$533,400	50,000	1	GC,SEC,VP	12/18/18	\$10.67	\$10.91	3,146	2,671
+3	11/5/18 Encana	ECA	В	\$71,171	12,500	2	DIR	12/19/18	\$5.69	\$5.81	5,537	22,712
••• +2	12/19/18 New Mtn Finance	NMFC	В	\$2,517,671	200,805	3	COO,DIR,PR	12/17/18	\$12.54	\$12.84	977	298
••• +2	12/14/18 Koppers	KOP	В	\$1,038,500	60,000	2	CFO,TR,VP	12/18/18	\$17.31	\$16.39	336	267
••• +2	12/19/18 Flaherty & Crumrine	Dy DFP	В	\$100,000	5,000	1	A,CEO,DIR,PR	12/18/18	\$20.00	\$20.44	392	81
••• +2	11/7/18 CB Finl Svs	CBFV	В	\$56,813	2,250	1	DIR	12/18/18	\$25.25	\$25.45	138	7
••• +2	10/24/18 First Finl Banc	FFBC	В	\$23,940	1,000	1	DIR	12/19/18	\$23.94	\$25.00	2,448	380
● ○○ +1	10/18/18 Intl Flavors & Frag	IFF	В	\$13,337,576	100,000	1	во	12/17/18	\$133.38	\$135.50	14,447	1,219
●00 +1	12/19/18 Repro-Med Sys	REPR	JB*,B	\$4,068,205	3,346,677	1	BO,DIR	12/17/18	\$1.22	\$1.47	56	25
●00 ±1	12/17/18 Barings BDC	BBDC	AB	\$628,479	68,600	1	BO,FO	12/19/18	\$9.16	\$9.60	492	388
0 00 +1	11/14/18 DISH Network	DISH	AB	\$603,000	20,000	1	DIR,VP	12/18/18	\$30.15	\$30.65	14,334	3,193
●00 ±1	11/28/18 Otelco	OTEL	В	\$451,610	28,300	1	во	12/18/18	\$15.96	\$16.25	55	8
●00 +1	11/21/18 Alpha & Omega Sem	ni AOSL	AB	\$401,037	40,252	1	BO,CEO,DIR	12/19/18	\$9.96	\$10.17	242	104
●00 +1	11/19/18 XOMA	XOMA	В	\$354,793	25,000	1	ВО	12/17/18	\$14.19	\$14.23	120	103
●00 ±1	11/23/18 US Concrete	USCR	В	\$348,500	10,000	1	DIR	12/17/18	\$34.85	\$33.73	567	514
●00 +1	12/19/18 Forestar	FOR	В	\$328,750	25,000	1	DIR	12/18/18	\$13.15	\$13.49	566	75
●00 +1	12/17/18 Sprott Focus Tr	FUND	В	\$295,631	50,000	1	BO,DIR	12/18/18	\$5.91	\$6.02	157	61
●00 +1	12/19/18 H&E Equipment Svs	HEES	В	\$200,700	10,000	1	DIR	12/18/18	\$20.07	\$19.87	710	438
●00 +1	12/19/18 First Commonwealth	FCF	В	\$97,917	8,000	1	DIR	12/18/18	\$12.24	\$12.35	1,228	681
●00 +1	11/20/18 Oasis Midstream LP	OMP	В	\$85,550	5,000	1	DIR	12/19/18	\$17.11	\$19.43	535	78
●00 +1	12/18/18 Huttig Building Prod	HBP	В	\$73,410	30,000	1	DIR	12/13/18	\$2.45	\$2.52	66	68
0 00 +1	12/19/18 Catalyst Pharm	CPRX	В	\$44,800	20,000	1	CEO,DIR,PR	12/19/18	\$2.24	\$2.34	240	2,005
●00 ±1	12/10/18 Centerstate Bank	CSFL	В	\$20,868	1,000	1	0	12/18/18	\$20.87	\$21.33	2,040	669
000 +0.5	5 12/19/18 Esperion Therap	ESPR	В	\$2,864,070	60,000	1	ВО	12/17/18	\$47.73	\$47.97	1,286	770
1 000 +0.5	5 12/19/18 Astrotech	ASTC	ОВ	\$2,037,333	866,950	1	BO,CEO,DIR	12/7/18	\$2.35	\$3.52	14	453
1 000 +0.5	5 12/17/18 Hyster-Yale Materials	s HY	AB	\$1,724,735	27,617	16	CB,DIR,O	12/18/18	\$62.45	\$61.64	1,021	50
1 000 +0.5	5 12/19/18 Dynasil of Amer	DYSL	JB*	\$1,450,000	1,450,000	1	CEO,DIR,PR	12/18/18	\$1.00	\$0.85	15	21
A00	5 12/19/18 Quanta Svs	PWR	В	\$998,923	34,060	2	CEO,CFO,COO,DIR		\$29.33	\$30.27	4,435	1,492
•	5 12/19/18 Eaton Vance	EV	В	\$348,862	10,000	1	DIR	12/18/18	\$34.89	\$34.95	4,087	918
•	5 12/19/18 Nuveen AMT-Free M		В	\$139,874	10,300	1	0	12/17/18	\$13.58	\$13.77	2,789	566
A00	5 12/19/18 180 Degree Cap	TURN	В	\$46,250	25,000	1	CB,CEO,DIR	12/18/18	\$1.85	\$1.91	59	66
000	11/19/18 Eagle Bulk Shipping	EGLE	В	\$3,786,246	831,610	1	ВО	12/19/18	\$4.55	\$4.71	342	424
000	12/14/18 Cumulus Media	CMLS	В	\$1,187,130	110,000	1	ВО	12/17/18	\$10.79	\$10.75	177	17
000	12/19/18 LCI Ind	LCII	В	\$948,600	15,000	1	DIR	12/17/18	\$63.24	\$62.51	1,576	220
000	11/14/18 Stellus Cap Inv	SCM	В	\$467,220	37,000	1	CEO.DIR.PR	12/19/18	\$12.63	\$13.42	214	75
000	12/19/18 Metlife	MET	В	\$249,865	6,400	1	DIR	12/17/18	\$39.04	\$38.89	38,378	7,386
	12/19/18 Genesis Energy LP	GEL	В	\$197,500	10,000	1	VP	12/18/18	\$19.75	\$21.42	2,625	602
000	12/19/18 Caesars Ent	CZR	В	\$173,750	25,000	1	DIR	12/19/18	\$6.95	\$7.45	4,990	19,455
000	12/17/18 Blue Hills Banc	BHBK	ОВ	\$154,024	10,947		CEO,PR	12/17/18	\$14.07	\$21.81	586	224
000	12/17/18 Veru	VERU	В	\$146,160	100,000		0	12/17/18	\$1.46	\$1.35	84	89
000	12/19/18 Lamar Advertising Co		ОВ	\$109,500	6,000		DIR	12/18/18	\$18.25	\$70.70	7,035	508
000	11/16/18 Portola Pharm	PTLA	ОВ	\$105,706	25,782	1	DIR	12/19/18	\$4.10	\$18.85	1,252	1,529
•	12/11/18 Carters	CRI	AB	\$80,100	1,000	1	DIR	12/19/18	\$80.10	\$82.22	3,770	1,084
000	12/11/18 Carters 12/19/18 Triple-S Mgt	GTS	B,JB*		4,683	1	CEO,PR				398	200
000	12/19/18 Triple-S Mgt			\$74,760				12/18/18	\$15.96	\$17.33		
+0	12/19/10 Hawinorn Banc	HWBK	В	\$69,930	3,000	5	CEO,DIR,VP	12/19/18	\$23.31	\$23.31	141	10

^{*} See last page for the Key to Ratings, Titles & Transaction Type codes.

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Ratings of Latest Insider Purchases

						Total				Latest	Ave.		Mkt	10-Day
Insid	er	Rating			Trans	Purch	Shares			Trans	Purch	Recent	Cap	Ave Vol
Ratin	g*	Date	Company	Ticker	Type(s)*	Value	Bought	# Ins	siders - Title(s)*	Date	Price	Price	(mm)	(m)
000	+0	10/25/18	Citizens & Northern	CZNC	OE*	\$53,358	3,543	1	VP	12/18/18	\$15.06	\$25.40	312	12
000	+0	11/30/18	BlackRock Muni Yld NJ	MYJ	В	\$43,880	3,365	1	0	12/17/18	\$13.04	\$13.02	188	84
000	+0	12/19/18	Adaptimmune Therap	ADAP	JB*	\$39,715	47,280	1	DIR	12/17/18	\$0.84	\$5.16	540	640
000	+0	12/19/18	Home Banc	HBCP	В	\$36,440	1,000	1	DIR	12/13/18	\$36.44	\$35.16	333	12
000	+0	12/14/18	SeaChange Intl	SEAC	В	\$33,664	27,385	1	ВО	12/18/18	\$1.23	\$1.34	48	227
000	+0	12/19/18	Blackrock Muniassets F	MUA	В	\$33,460	2,610	1	0	12/17/18	\$12.82	\$12.83	462	93
000	+0	12/19/18	BlackRock Mu Inc Tr II	BLE	В	\$31,211	2,446	1	0	12/17/18	\$12.76	\$12.80	301	96
000	+0	12/17/18	FlexShopper	FPAY	JB*	\$21,390	30,000	1	ВО	12/18/18	\$0.71	\$0.73	13	696
000	0	11/14/18	Carvana Co	CVNA	В	\$21,321,946	630,000	1	ВО	12/19/18	\$33.84	\$32.15	4,632	1,799
000	0	12/18/18	Monmouth RE Inv	MNR	JB*	\$164,000	12,529	1	0	12/17/18	\$13.09	\$13.76	1,260	717
000	0	12/19/18	B HG	STLY	В	\$154,361	366,514	1	ВО	12/19/18	\$0.42	\$0.41	6	20
000	0	11/8/18	Public Storage	PSA	ОВ	\$115,960	1,000	1	DIR	12/18/18	\$115.96	\$203.47	35,478	1,087
000	0	11/21/18	Harvest Cap Credit	HCAP	В	\$66,368	6,923	1	CEO,DIR	12/18/18	\$9.59	\$9.85	63	18
000	0	11/1/18	BorgWarner	BWA	В	\$49,927	1,421	1	DIR	12/19/18	\$35.14	\$34.63	7,213	2,588
000	0	12/19/18	General Finance	GFN	JB*	\$37,184	384	1	ВО	12/18/18	\$96.83	\$9.81	297	111
	+200	12/19/18	Endocyte	ECYT	OE*,OB	\$2,543,279	480,614	6	CAO,CEO,CFO,DIR,	O 12/17/18	\$5.29	\$23.84	1,957	2,982

 $[\]ensuremath{^*}$ See last page for the Key to Ratings, Titles & Transaction Type codes.



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Ratings of Latest Insider Sales

	D. II		<u>_</u>	Total	61			Latest	Ave.	Б	Mkt	10-Day
Insider Rating*	Rating Date Company	Ticker	Trans Type(s)*	Sale Value	Shares Sold	# Inc	siders - Title(s)*	Trans Date	Sale Price	Recent Price	Cap (mm)	Ave Vol (m)
	12/19/18 Stitch Fix	SFIX	AS	\$649,160			BO,CEO,COO,DIR,PR		\$19.28	\$20.35	2,026	5,670
••• - <u>2</u>	11/5/18 Snap	SNAP	AS	\$452,354	78,031	2	CAO,CFO,VP	12/19/18	\$5.80	\$5.92	7,666	15,360
●00 -1	10/4/18 Acorda Therap	ACOR	S	\$2,045,043	121,853	1	BO	12/18/18	\$16.78	\$16.18	770	980
• • • •	12/19/18 SiteOne Landscape	SITE	os	\$1,105,335	19,750		A,CFO,SEC,VP	12/18/18	\$55.97	\$54.49	2,225	560
	12/14/18 TherapMD	TXMD	os	\$953,385	258,127	1	DIR,PR,SEC	12/18/18	\$3.69	\$3.87	921	3,040
• • •	12/19/18 Carbon Black	CBLK	AS	\$681,500	50,000	1	0	12/17/18	\$13.63	\$14.15	961	1,130
	12/19/18 Vera Bradley	VRA	AS	\$524,927	61,614	2	ВО	12/18/18	\$8.52	\$8.57	297	790
• • •	12/19/18 Citi Trends	CTRN	S	\$294,484	15,000	1	DIR	12/18/18	\$19.63	\$18.99	246	160
• • •	12/19/18 Roku	ROKU	os	\$100,470	3,000	1	DIR	12/17/18	\$33.49	\$33.42	3,648	6,310
1 00 -0.5	12/19/18 Blackrock Muni Inc Tr	BFK	S	\$33,412	2,712	1	0	12/17/18	\$12.32	\$12.35	554	160
OOO -0	10/17/18 salesforcecom	CRM	AS,OS	\$21,968,263	164,888	4	CB,CEO,DIR,GC,LO	12/19/18	\$133.23	\$137.04	104,836	6,690
OOO -0	12/7/18 AutoZone	AZO	os	\$17,743,622	21,000	1	CIO,VP	12/17/18	\$844.93	\$871.24	22,268	470
OOO -0	12/6/18 Alphabet	GOOG	AS	\$10,414,958	10,000	1	CEO,DIR	12/19/18	\$1,041	\$1,052	728,069	2,050
OOO -0	11/14/18 ServiceNow	NOW	AS	\$5,653,037	32,500	1	DIR	12/17/18	\$173.94	\$181.98	32,629	2,170
OOO -0	12/18/18 Broadcom	AVGO	os	\$5,129,449	20,000	1	CEO,DIR,PR	12/17/18	\$256.47	\$254.83	105,359	5,150
OOO -0	12/7/18 Coupa Software	COUP	AS,OS	\$4,664,709	75,725	2	CEO,CFO,DIR	12/17/18	\$61.60	\$64.53	3,836	1,770
OOO -0	11/16/18 Clorox Co	CLX	AS	\$4,067,964	25,317	1	COO,VP	12/17/18	\$160.68	\$164.52	21,001	1,090
OOO -0	10/19/18 Vonage	VG	AS	\$3,665,333	400,000	1	DIR	12/19/18	\$9.16	\$9.49	2,274	2,510
OOO -0	10/10/18 Cummins	CMI	os	\$3,307,197	24,830	1	CB,CEO,DIR	12/17/18	\$133.19	\$133.84	21,490	1,460
OOO -0	11/9/18 Square	SQ	AS	\$3,000,287	50,000	1	0	12/17/18	\$60.01	\$62.14	25,695	17,690
OOO -0	12/12/18 Okta	OKTA	AS	\$2,902,221	46,265	3	CFO,DIR	12/17/18	\$62.73	\$66.81	7,378	3,000
OOO -0	11/21/18 Beigene	BGNE	os	\$2,673,536	20,000	1	SO	12/18/18	\$133.68	\$133.85	7,682	910
OOO -0	12/17/18 Zscaler	ZS	AS	\$2,622,290	67,106	2	LO,O	12/18/18	\$39.08	\$42.47	5,192	2,390
OOO -0	11/19/18 Morningstar	MORN	AS	\$2,376,113	20,965	1	BO,CB,DIR	12/18/18	\$113.34	\$114.42	4,881	100
OOO -0	12/19/18 Inv Tech	ITG	S,OS	\$2,250,062	74,965	2	CEO,DIR,PR	12/18/18	\$30.01	\$30.05	993	600
OOO -0	12/6/18 Workday	WDAY	AS	\$2,197,565	14,071	2	O,PR	12/17/18	\$156.18	\$162.03	35,323	3,910
OOO -0	11/1/18 Dolby LABS	DLB	AS	\$1,831,004	28,359	3	CEO,DIR,GC,PR,SEC	12/18/18	\$64.57	\$66.17	6,833	360
000 -0	12/11/18 Stryker	SYK	OS	\$1,508,080	9,332	1	COO,PR	12/18/18	\$161.60	\$166.56	62,325	1,540
OOO -0	11/9/18 CorVel	CRVL	OS,AS	\$1,138,349	18,178	1	CB,DIR	12/19/18	\$62.62	\$64.26	1,205	40
OOO -0	12/19/18 CymaBay Therap	CBAY	S	\$1,123,589	142,381	1	DIR	12/18/18	\$7.89	\$8.66	515	480
OOO -0	9/21/18 Exxon Mobil	XOM	S	\$1,092,527	15,000	1	VP	12/19/18	\$72.84	\$75.58	319,991	16,610
OOO -0	11/26/18 Sailpoint Tech	SAIL	AS	\$1,068,371	47,000	2	CEO,CFO,DIR,PR,TR	12/18/18	\$22.73	\$24.32	2,135	980
-0	12/4/18 Regenxbio	RGNX	AS	\$1,048,577	22,500	2	CEO,CFO,DIR,PR	12/17/18	\$46.60	\$45.72	1,639	550
	11/21/18 Inspire Medical Sys	INSP	AS	\$643,213	15,000	1	CEO,DIR,PR	12/18/18	\$42.88	\$41.36	947	390
	11/19/18 Intersect ENT	XENT	OS	\$594,504	20,000	1	CEO,DIR,PR	12/17/18	\$29.73	\$30.60	935	250
^^^	12/19/18 Walt Disney Co	DIS	AS	\$588,595		2	FO,GC,SEC,VP		\$110.10			9,200
000	11/20/18 Quotient Tech	QUOT	AS	\$570,530	50,000	1	CB,DIR	12/17/18	\$11.41	\$11.81	1,124	540
000 -0	11/6/18 Smart Global	SGH	OS	\$545,081	18,800	2	DIR,VP	12/17/18	\$28.99	\$30.08	680	260
	11/21/18 Mercury Sys	MRCY	AS	\$484,050	10,000	1	CEO,DIR,PR	12/18/18	\$48.41	\$48.38	2,342	270
000 -0	9/25/18 Comcast	CMCSA	OS	\$476,185	13,086	1	GC,SEC,VP	12/18/18	\$36.39	\$36.34	165,329	24,040
000	12/12/18 RingCentral	RNG	AS	\$396,314	4,808	1	0	12/19/18	\$82.43	\$82.47	6,625	1,040
000	12/18/18 Omnicell	OMCL	AS	\$252,099	3,982			12/19/18	\$63.31	\$66.28	2,626	410
000	11/16/18 Intercept Pharm	ICPT	OS	\$213,240	2,000	1	0	12/17/18		\$108.01	3,203	390
000 -0	11/5/18 Editas Medicine	EDIT	OS	\$193,303	7,000	1	СТО	12/18/18	\$27.61	\$28.45	1,360	670
000 -0	12/6/18 Dropbox	DBX	AS	\$181,513	8,125		CAO	12/17/18	\$22.34	\$22.60	9,187	3,420
000	11/23/18 Walmart	WMT	S	\$138,000	1,500	3	BO,DIR	12/17/18	\$92.00	\$91.85	266,848	9,190
000	11/14/18 Employers	EIG	OS	\$126,870	3,000	1	LO,VP	12/17/18	\$42.29	\$42.69	1,400	160
000	12/14/18 QAD	QADA	JS*	\$120,900	3,000	1	BO,DIR,PR	12/18/18	\$40.30	\$41.25	781	50
000	11/21/18 Cornerstone OnD	CSOD	OS	\$103,940	2,000	1	0	12/17/18	\$51.97	\$52.51	3,078	490
OOO -0	11/26/18 Carrizo Oil & Gas	CRZO	AS	\$99,459	8,000	1	CEO,DIR,PR	12/17/18	\$12.43	\$12.52	1,147	3,040

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Ratings of Latest Insider Sales (Continued)

				Total				Latest	Ave.		Mkt	10-Day
Insider	Rating		Trans	Sale	Shares			Trans	Sale	Recent	Cap	Ave Vol
Rating*	Date Company	Ticker	Type(s)*	Value	Sold i	# In:	siders - Title(s)*	Date	Price	Price	(mm)	(m)
000 -0	11/19/18 Seres Therap	MCRB	AS	\$91,313	14,282	1	CTO,VP	12/17/18	\$6.39	\$6.39	261	90
000 -0	12/19/18 Nuveen En Mu Cr Op F	- NZF	JS*	\$60,956	4,900	1	A,SEC,VP	12/17/18	\$12.44	\$13.49	1,917	490
OOO -0	12/19/18 Del Taco Rest	TACO	S	\$60,700	5,982	1	OO,VP	12/17/18	\$10.15	\$10.07	380	240
000 -0	11/6/18 Five9	FIVN	os	\$59,375	1,411	1	OO,VP	12/18/18	\$42.08	\$42.05	2,471	540
0-0	12/19/18 Chevron	CVX	os	\$57,012	507	1	VP	12/17/18	\$112.45	\$113.83	217,504	7,780
000 -0	10/22/18 TriNet	TNET	AS	\$47,477	1,141	1	VP	12/19/18	\$41.61	\$42.13	2,968	350
000 -0	11/30/18 BR Muni NJ Ins Fd	MUJ	S	\$44,030	3,500	1	0	12/17/18	\$12.58	\$12.72	384	110
000 -0	9/20/18 Peoples Utah Banc	PUB	AS	\$40,748	1,375	1	DIR	12/19/18	\$29.63	\$29.34	549	20
0-0	12/6/18 Everbridge	EVBG	AS	\$39,478	749	1	OO,VP	12/17/18	\$52.71	\$53.55	1,588	330
000 -0	11/21/18 Pro-Dex	PDEX	os	\$38,516	3,000	1	DIR	12/19/18	\$12.84	\$12.85	54	40
000 -0	12/19/18 BlackRock MuniVest Fo	d MVF	S	\$31,136	3,742	1	0	12/17/18	\$8.32	\$8.42	543	240
000 0	12/13/18 Genomic Health	GHDX	AS	\$3,339,527	50,000	1	CEO,DIR,PR	12/18/18	\$66.79	\$69.34	2,505	480
000 0	12/19/18 Crispr Therap AG	CRSP	S	\$2,176,898	72,934	1	DIR	12/18/18	\$29.85	\$32.69	1,697	720
000 0	12/19/18 Cimpress NV	CMPR	os	\$1,591,544	14,763	1	DIR	12/18/18	\$107.81	\$110.05	3,402	150
000 0	11/20/18 Wayfair	W	AS	\$766,496	8,000	2	BO,CEO,DIR,F	12/17/18	\$95.81	\$103.29	9,332	2,520
000 0	11/28/18 CarGurus	CARG	AS	\$673,600	20,000	1	СТО	12/19/18	\$33.68	\$34.76	3,826	770
000 0	10/31/18 NovaGold Res	NG	os	\$628,388	159,050	1	DIR	12/18/18	\$3.95	\$3.84	1,242	1,570
000 0	12/11/18 Kroger Co	KR	S	\$592,999	20,546	1	VP	12/18/18	\$28.86	\$29.55	23,564	9,580
000 0	11/19/18 Goosehead Insurance	GSHD	AS	\$542,044	20,046	3	BO,CEO,DIR	12/18/18	\$27.04	\$27.39	994	160
000 0	11/15/18 Carbonite	CARB	S	\$452,409	17,175	4	CEO,CFO,DIR,PR,SO	12/17/18	\$26.34	\$25.61	885	370
000 0	12/3/18 Intel	INTC	AS	\$409,874	8,552	1	VP	12/18/18	\$47.93	\$47.86	218,433	29,960
000 0	12/12/18 Verisk Analytics	VRSK	AS	\$332,910	3,000	1	DIR	12/19/18	\$110.97	\$113.83	18,739	1,150
000 0	12/17/18 TriCo Banc	TCBK	S	\$238,618	6,693	3	CFO,DIR,VP	12/14/18	\$35.65	\$35.26	1,073	100
000 0	12/19/18 Redwood Tr	RWT	AS	\$228,750	15,000	1	GC	12/19/18	\$15.25	\$15.90	1,319	760
000 0	12/7/18 Teladoc Health	TDOC	os	\$168,727	3,374	2	BD,O,VP	12/18/18	\$50.01	\$51.17	3,587	2,060
000 0	12/19/18 HG	STLY	S	\$136,086	324,014	1	ВО	12/17/18	\$0.42	\$0.41	6	20
000 0	11/16/18 Markel	MKL	AS	\$103,575	100	1	DIR,VCB	12/17/18	########	########	14,559	60

^{*} See last page for the Key to Ratings, Titles & Transaction Type codes.



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KEY FOR TITLE CODES:

A=Assistant, Al=Affiliated Investor, AO=Accounting Officer, BD=Business Development, BO=Beneficial Owner, CAO=Chief Accounting Officer, CB=Chairman, CCO=Chief Compliance Officer, CEO=Chief Executive Officer, CFO=Chief Financial Officer, CIO=Chief Information Officer, CO=Compliance Officer, COO=Chief Operating Officer, CT=Controller, CTO=Chief Technology Officer, DIR=Director, F=Founder, FO=Financial Officer, GC=General Counsel, HR=Human Resources, IO=Information Officer, IR=Investor Relations, LO=Legal Officer, MD=Managing Director, O=Officer, OO=Operating Officer, PR=President, PT=Partner, REL=Relative of insider, SEC=Secretary, SH=Shareholder, SO=Sales Officer, TO=Technology Officer, TR=Treasurer, TT=Trustee, VCB=Vice Chairman, VP=Vice President, X=Ex Officer or other title displayed.

KEY FOR TRANSACTION TYPE CODES:

- B = Open-Market Insider Buy.
- S = Open-Market Insider Sale.
- AB = Automatic Buy through the insider's 10b5-1 program.
- AS = Automatic Sale through the insider's 10b5-1 program
- JB* = Supposed Open-Market Acquisition done outside the price range or trading volume on the day.
- JS* = Supposed Open-Market Disposition done outside the price range or trading volume on the day.
- OB = Option Exercise that was not sold at all.
- OE* = Option Exercise that was only partially sold.
- OS* = Partial Sale of Exercised Options.
- OE = Option Exercise that was completely sold.
- OS = Complete Sale of Exercised Options.
- JB = Non Open-Market Acquisition (Transaction Price is often unrelated to market price on the day).
- JS = Non Open-Market Disposition (Transaction Price often unrelated to market price on the day).
- 3 = Form 3 filing indicating new insider. New insiders must file a Form 3 whether or not they have any holdings in the company.

KEY FOR INSIDERINSIGHTS COMPANY RATINGS:

SIGNIFICANTLY BULLISH

••	+2	SIGNIFICANTLY BULLISH	e Significantly Bullish and Bearish Ratings are clearly stronger than others. Reasons for a Significant Rating gar- ig 2 or 3 colored icons instead of just one include: clusters of insiders acting similarly; insiders having very predic-						
•00	+1	SIGNIFICANTLY BULLISH	tive track records (as per our Insider Statistics); large \$ value transactions, and trades resulting in large changes in						
000	+0.5	LEANING BULLISH	holdings; transactions that represent reversals of opinion, and; many other proprietary metrics and behavioral factors.						
000	+0	INSIGNIFICANTLY BULLISH	Despite computing and relaying different strengths of Significant insider signals, however, we do not purport that a +3 or –3 Significance Rating is three times more likely to be correct, or is more likely to result in a larger stock move.						
000	0	CONFLICTING PURCHASES & SALES	 Our back tests and experience indicate that the major alpha generation comes from the fact that a stock's insider activity has surpassed our calculated threshold of Significance. The strength of Significance is less important. 						
000	-0	INSIGNIFICANTLY BEARISH	t is further valid to consider stocks with Ratings that are merely Leaning Bullish or Bearish in your long and short						
000	-0.5	LEANING BEARISH	analysis, as these Ratings have also proved to generate alpha, though less than Significant Ratings.						
•00	-1	SIGNIFICNATLY BEARISH	Ratings should also be interpreted in concert with a stock's price action. It is normal behavior for insiders to buy						
••0	-2	SIGNIFICNATLY BEARISH	when their stock has fallen in price, and sell when it rises sharply. So even an Insignificantly Bullish Rating on a stock that has doubled, or Insignificantly Bearish Rating on a stock that has halved in price imparts intelligence.						
•••	-3	SIGNIFICNATLY BEARISH	♦ Our Ratings are considered "active" for 3 months, or until replaced by another Rating.						
	+200	Purchases During Corporate Action.	May occasionally relay arbitrage intelligence.						
	+100	Purchases Related to IPO.	Value of investment intelligence is uncertain when stock is unseasoned.						
	-100	Sales Related to IPO.	Value of investment intelligence is uncertain when stock is unseasoned.						
	-200	Sales During Corporate Action.	May occasionally relay arbitrage intelligence.						
	NR	Not Yet Rated.	There has not been a combination of insider activity and other factors to warrant a Rating.						

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Interpreting our color-coded Ratings icons is straightforward: Green is Bullish; Red is Bearish.