MA Message – 5 Best Limits

This message informs subscribers about modifications brought to the first five limits associated with an instrument for a trading day.

Max Length = 512

Min Length = 154

Note: If you receive a space in the decimal locator field and all 9's for the 18 byte price field then the actual price is null. (This means that there is not a price or the previous price should be cleared)

Position	Attribute	Lng	Value
1 - 12	ISIN Code	(12)	This is the ISIN Code for the given instrument.
13 - 17	Host Timestamp	(5)	This is the time when the message was created at the host. Expressed as "sscc" where ss is in seconds and cc is in centiseconds. Please disregard position 17.
18 - 31	Date/Time	(14)	This is the date and time the message was generated by the host. Expressed as yyyymmddhhmmss.
32 - 33	Various CME Info	(2)	This data should not be used.
34 - 35	Message Type	(2)	This is the message type, MA.
36 - 41	Various CME Info	(6)	This data should not be used.
42 - 49	Trading Date	(8)	This is the current trading date. Expressed as yyyymmdd.
50 - 69	20 Byte Instrument Code	(20)	This is the instrument in the form of "ESZ1 " or "ESZ1 C1060
70	Trading Origin Indicator	(1)	B = Book
71	Trading Mode	(1)	0 = Preopening Mode 1 = Opening Mode 2 = Continuous Trading Mode
72 - 76	5 blank spaces	(5)	
77	Change of Limit Flag for 1st Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified
78	Change of Limit Flag for 2nd Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified

Position	Attribute	Lng	Value
79	Change of Limit Flag for 3rd Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified
80	Change of Limit Flag for 4th Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified
81	Change of Limit Flag for 5th Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified
82	Change of Limit Flag for 6th Limit	(1)	0 = Buy and sell sides are NOT modified 1 = Buy and/or sell sides are modified (6th occurrence is insignificant in continuous trading mode (if Position 89=2))
83 - 94	Buy Limit Quantity	(12)	This is the sum of all displayed quantities of each order present at the buy limit price
95 - 98	Number of Buy Orders at Buy Limit Price	(4)	
99	Decimal Locator for Buy Limit Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals “ “ = Null

Position	Attribute	Lng	Value
100 - 117	Buy Limit Price	(18)	Takes the form "000000000000104475".
118	Decimal Locator for Sell Limit Price	(1)	See values for Position 99.
119 - 136	Sell Limit Price	(18)	Takes the form "000000000000104475".
137 - 140	Number of Sell Orders at Sell Limit Price	(4)	
141 - 152	Sell Limit Quantity	(12)	
153 - 154	2 blank spaces	(2)	
155 - 166	Buy Limit Quantity	(12)	
167 - 170	Number of Buy Orders at Buy Limit Price	(4)	
171	Decimal Locator for Buy Limit Price	(1)	See values for Position 99.
172 - 189	Buy Limit Price	(18)	
190	Decimal Locator for Sell Limit Price	(1)	See values for Position 99.
191 - 208	Sell Limit Price	(18)	Sell Limit Price
209 - 212	Number of Sell Orders at Sell Limit Price	(4)	
213 - 224	Sell Limit Quantity	(12)	
225 - 226	2 blanks	(2)	Separates next modified limit (if another modified limit exists).
227 - 238	Buy Limit Quantity	(12)	
239 - 242	Number of Buy Orders at Buy Limit Price	(4)	
243	Decimal Locator for Buy Price	(1)	See values for Position 99.
244 - 261	Buy Price	(18)	
262	Decimal Locator for Sell Price	(1)	See values for Position 99.
263 - 280	Sell Price	(18)	
281 - 284	Number of Sell Orders at Sell Limit Price	(4)	
285 - 296	Sell Limit Quantity	(12)	
297 - 298	2 blank spaces	(2)	Separates next modified limit (if another modified limit exists).
299 - 310	Buy limit quantity	(12)	

Position	Attribute	Lng	Value
311 - 314	Number of Buy Orders at Buy Limit Price	(4)	
315	Decimal Locator for Buy Price	(1)	See values for Position 99.
316 - 333	Buy Price	(18)	
334	Decimal Locator for Sell Price	(1)	See values for Position 99.
335 - 352	Sell Price	(18)	
353 - 356	Number of Sell Orders at Sell Limit Price	(4)	
357 - 368	Sell Limit quantity	(12)	
369 - 370	2 blanks spaces	(2)	
371 - 382	Buy Limit Quantity	(12)	
383 - 386	Number of Buy Orders at Buy Limit Price	(4)	
387	Decimal Locator for Buy Price	(1)	See values for Position 99.
388 - 405	Buy Price	(18)	
406	Decimal Locator for Sell Price	(1)	See values for Position 99.
407 - 424	Sell Price	(18)	
425 - 428	Number of Sell Orders at Sell Limit Price	(4)	
429 - 440	Sell Limit Quantity	(12)	
441 - 442	2 blanks spaces	(2)	
443 - 454	Buy Limit Quantity	(12)	
455 - 458	Number of Buy Orders at Buy Limit Price	(4)	
459	Decimal Locator for Buy Price	(1)	See values for Position 99.
460 - 477	Buy Price	(18)	
478	Decimal Locator for Sell Price	(1)	See values for Position 99.
479 - 496	Sell Price	(18)	
497 - 500	Number of Sell Orders at Sell Limit Price	(4)	
501 - 512	Sell Limit Quantity	(12)	

MY Message – Modification to the First 5 Implied Orders

This message provides all modifications brought to the first five implied orders associated with an instrument. This message is updated every time the limits change.

This is a new market data message which was introduced with the “EAGLE” trading engine which provided implied spreading for Eurodollars. Eventually, all products will be on this version of the trading engine.

Note: Although the MY message specification supports 20 price levels (implied occurrences), GLOBEX implied spreading only supports a order book depth of five levels.

Min Length = 158

Max Length = 1336

Position	Attribute	Lng	Value
1 - 12	ISIN Code	(12)	This is the ISIN Code for the given instrument.
13 - 17	Host Timestamp	(5)	This is the time when the message was created at the host. Expressed as "sscc" where ss is in seconds and cc is in centiseconds. Please disregard position 17.
18 - 31	Date/Time	(14)	This is the date and time the message was generated by the host. Expressed as yyyymmddhhmmss.
32 - 33	Various CME Info	(2)	This data should not be used.
34 - 35	Message Type	(2)	This is the message type, MY.
36 - 41	Various CME Info	(6)	This data should not be used..
42 - 49	Trading Date	(8)	This is the current trading date, expressed as yyyymmdd.
50 - 69	20 Byte Instrument Code	(20)	This is the instrument in the form of "ESZ1 " or "ESZ1 C1060 " ...and so on Your application should be reading this 20 byte field to determine the instrument.
70	Matching Type	(1)	This data should not be used (it will contain the value of Blank or “B”)
71	Trading Mode	(1)	1 = Opening Mode 2 = Continuous Trading Mode
72 - 76	Reserved	(5)	This data should not be used.

Position	Attribute	Lng	Value
77 - 96	Change of Implied Order Flag	(20)	Maximum of 20 occurrences, which are each 1 byte in length. For the occurrence N (1-20): 0 = The Nth limit is not modified 1 = The Nth limit is modified
97 – 1336	Implied Occurrence	(1240)	Maximum of 20 occurrences, which are each 62 bytes in length. Appears for each modified implied order (thus implies variable number of occurrences) One Implied Occurrence equals the sum of: • Buy Limit Quantity • Decimal Locator • Buy Limit Price • Decimal Locator • Sell Limit Price • Sell Limit Quantity There is always a trailing zero at the end of the last implied occurrence.
	Buy Limit Quantity	(12)	

Position	Attribute	Lng	Value
	Decimal locator for Buy Limit Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals “ “ = Null
	Buy Limit Price	(18)	

Position	Attribute	Lng	Value
	Decimal Locator for the Sell Limit Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals “ “ = Null
	Sell Limit Price	(18)	
	Sell Limit Quantity	(12)	

M0 (zero) Message – Last Best Price

This message represents the reference price, the theoretical opening price, the price of the last trade, or a best sell/buy price. Only the M0 (zero) message should be used to determine the last best price.

Max Length = 163

Note: If you receive a space in the decimal locator field and all 9's for the 18 byte price field then the actual price is null. (This means that there is not a price or the previous price should be cleared)

Position	Attribute	Lng	Value
1 - 12	ISIN Code	(12)	This is the ISIN Code for the given instrument.
13 - 17	Host Timestamp	(5)	This is the time when the message was created at the host. Expressed as "sscc" where ss is in seconds and cc is in centiseconds. Please disregard position 17.
18 - 31	Date/Time	(14)	This is the date and time the message was generated by the host. Expressed as yyyymmddhhmmss.
32 - 33	Various CME Info	(2)	This data should not be used.
34 - 35	Message Type	(2)	This is the message type, M0.
36 - 41	Various CME Info	(6)	This data should not be used.
42 - 49	Trading Date	(8)	This is the current trading date. Expressed as yyyymmdd.
50 - 69	20 Byte Instrument Code	(20)	This is the instrument in the form of "ESZ1 " or "ESZ1 C1060 " ...and so on. Your application should be reading this 20 byte field to determine the instrument.
70	Decimal Locator for Last Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals

Position	Attribute	Lng	Value
			A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals “ “ = Null
71 - 88	Last Price	(18)	This is the last price in the form of 18 bytes, "000000000000104475".
89	Last Price Type Flag	(1)	A = Best Buy Limit V = Best Sell Limit I = Theoretical Opening Price S = Reference Price Blank = Last Trading Order
90	Decimal Locator for Highest Price	(1)	See values For Position 70.
91 - 108	Highest Price	(18)	This is the highest price in the form of 18 bytes, "000000000000104925".
109	Highest Price Type Flag	(1)	See values For Position 89.
110	Decimal Locator for Lowest Price	(1)	See values For Position 70.
111 - 128	Lowest Price	(18)	This is the lowest price in the form of 18 bytes, "000000000000103425".
129	Lowest Price Type Flag	(1)	See values For Position 89.
130 - 141	Last Traded Quantity	(12)	Last traded quantity if the last is due to a trade, otherwise the quantity is zero.
142	Trading Mode	(1)	0 = Pre-opening Mode 1 = Opening Mode 2 = Continuous Trading Mode
143	Net Change /Limits Expression	(1)	1 = Spread 2 = Percentage
144	Decimal Locator for Net Change	(1)	See values For Position 70.
145 - 162	Actual Net Change	(18)	Difference in price from the previous Day’s settlement
163	Side variation in relation to	(1)	+

Position	Attribute	Lng	Value
	preceding		- 0 “ “ Blank may occur during minibatch or post session

M5 Message – Opening Trade

This message informs subscribers of the first trade or trades occurring for an instrument during a trading day.

Max Length = 163

Position	Attribute	Lng	Value
1 – 12	ISIN Code	(12)	This is the ISIN Code for the given instrument.
13 – 17	Host Timestamp	(5)	This is the time when the message was created at the host. Expressed as "sscc" where ss is in seconds and cc is in centiseconds. Please disregard position 17.
18 – 31	Date/Time	(14)	This is the date and time the message was generated by the host. Expressed as yyyymmddhhmmss.
32 – 33	Various CME Info	(2)	This data should not be used.
34 – 35	Message Type	(2)	This is the message type, M5.
36 - 41	Various CME Info	(6)	This data should not be used.
42 – 49	Trading Date	(8)	This is the current trading date. Expressed as yyyymmdd.
50 – 69	20 Byte Instrument Code	(20)	This is the instrument in the form of "ESZ1 " or "ESZ1 C1060 " ...and so on. Your application should be reading this 20 byte field to determine the instrument.
70 – 81	Trade Quantity	(12)	

Position	Attribute	Lng	Value
82	Decimal Locator for the Trade Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals " " = Null
83 - 100	Trade Price	(18)	18 – byte price.
101 - 116	Blocked Data	(16)	This is confidential data and therefore not displayed properly. This data should be ignored.
117 - 128	Total Traded Daily Quantity	(12)	
129	Net Change Format Type	(1)	1 = Spread 2 = Percentage
130	Decimal Locator for the Net Change	(1)	See values for Position 82.
131 - 148	Net Change	(18)	In % or in spread expressed in the form of a price (decimal locator, price).
149	Cross Trade Indicator (1)	(1)	0 = Normal Trade 1 = Cross Trade
150	Last Trade at Same Price Indicator	(1)	0 = Trade at same price 1 = End of trade at same price

Position	Attribute	Lng	Value
151	Price Variation vs. Last Trade	(1)	+ - 0
152 - 163	Blocked Data	(12)	This is confidential data and therefore not displayed properly. This data should be ignored. **Note:** The length of this field varies in length by 11 or 12.

M6 Message – Trade

This message informs subscribers of any trades on an instrument occurring during the day, except the first trade. This message **should not** be used to determine the last best price. This message should be used to obtain volume information.

Max Length = 208

Note: If you receive a space in the decimal locator field and all 9's for the 18 byte price field then the actual price is null. (This means that there is not a price or the previous price should be cleared)

Position	Attribute	Lng	Value
1 - 12	ISIN Code	(12)	This is the ISIN Code for the given instrument.
13 - 17	Host Timestamp	(5)	This is the time when the message was created at the host. Expressed as "sscc" where ss is in seconds and cc is in centiseconds. Please disregard position 17.
18 - 31	Date/Time	(14)	This is the date and time the message was generated by the host. Expressed as yyyymmddhhmmss.
32 - 33	Various CME Info	(2)	This data should not be used.
34 - 35	Message Type	(2)	This is the message type, M6.
36 - 41	Various CME Info	(6)	This data should not be used.
42 - 49	Trading Date	(8)	This is the current trading date. Expressed as yyyymmdd.
50 - 69	20 Byte Instrument Code	(20)	This is the instrument in the form of "ESZ1 " or "ESZ1 C1060 " ...and so on Your application should be reading this 20 byte field to determine the instrument.
70 - 81	Trade Quantity	(12)	

Position	Attribute	Lng	Value
82	Decimal Locator for the Trade Price	(1)	0 = Positive amount with no decimals 1 = Positive amount with 1 decimal 2 = Positive amount with 2 decimals 3 = Positive amount with 3 decimals 4 = Positive amount with 4 decimals 5 = Positive amount with 5 decimals 6 = Positive amount with 6 decimals 7 = Positive amount with 7 decimals A = Negative amount with no decimals B = Negative amount with 1 decimal C = Negative amount with 2 decimals D = Negative amount with 3 decimals E = Negative amount with 4 decimals F = Negative amount with 5 decimals G = Negative amount with 6 decimals H = Negative amount with 7 decimals “ “ = Null
83 - 100	Trade Price	(18)	18 – byte price.
101 - 116	Blocked Data	(16)	This is confidential data and therefore not displayed properly. This data should be ignored.
117 - 128	Total Traded Daily Quantity	(12)	
129	Net Change Format Type	(1)	1 = Spread 2 = Percentage
130	Decimal Locator for the Net Change	(1)	See values for Position 82.
131 - 148	Net Change	(18)	In % or in spread expressed in the form of a price (decimal locator, price).
149	Decimal Locator for Highest Price	(1)	See values for Position 82.
150 - 167	Highest Price	(18)	18 - byte price.
168	Decimal Locator for Lowest Price	(1)	See values for Position 82.
169 - 186	Lowest Price (1)	(18)	18 - byte price.

Position	Attribute	Lng	Value
187 - 188	Trade Trend Flag	(2)	00 = Cancellation 07 = Trading
189	Cross Trade Indicator	(1)	0 = Normal Trade 1 = Cross Trade
190	Last Trade at Same Price Indicator	(1)	0 = Trade at same price 1 = End of trade at same price
191	Trade Origin Indicator	(1)	B = Book
192	Price Variation vs. Last Trade	(1)	+ - 0
193 - 208	Blocked Data	(16)	This is confidential data and therefore not displayed properly. This data should be ignored.