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MIAX Pearl Equities Exchange

Port Attributes

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1. Port Attributes

Member Firms can configure different attributes for each of their order entry ports/sessions for the MIAX Pearl Equities Exchange. Changes can be requested for each attribute by sending an email to Trading Operations at TradingOperations@MIAXEquities.com or via MIAX's Member Firm Portal. A brief description of each attribute is provided below, for additional details on the functionality please refer to the MIAX Pearl Equities Rules and/or the User Manual.

MIAX Pearl Equities will be referred to as Pearl Equities in the rest of the document.

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
1.	**ISO Reject**	Disallow entry of ISO orders.	No	By default, ISO orders are allowed.	√	√
2.	**Short Sale Reject**	Disallow entry of Sell Short orders.	No	By default, Sell Short orders are allowed.	√	√
3.	**Short Sale Exempt Reject**	Disallow entry of Sell Short Exempt orders.	No	By default, Sell Short Exempt orders are allowed.	√	√
4.	**Market Order Reject**	Disallow entry of Market orders.	No	By default, Market orders are allowed.	√	√
5.	**Maximum Order Size**	Maximum number of shares allowed per order.	Yes	Custom Maximum Order Size limits apply if specified by the member, else exchange default will be applied. *Valid values announced via Pearl Equities Regulatory Circular*	√	√

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Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
6.	**Maximum Order Notional Value**	Maximum Order Notional Value in dollars allowed for a limit or market order. Primary Auction (PAC) Market orders do not receive this protection.	No	By default, this protection is disabled and there is no exchange default value. Members can choose to configure a custom value. *Valid values announced via Pearl Equities Regulatory Circular*	√	√
7.	**Auto Cancel on Disconnect (ACOD)**	In the event a member's session with the exchange is disconnected, orders submitted via that session that are open on the orderbook can be cancelled automatically upon disconnect.	No	• Cancel All Open Orders • Do Not Cancel All Open Orders **(Default)**	√	√
8.	**Auto-Cancel on System/Matching Engine Failure (ACOSF)**	As a result of a MIAX system/matching engine failure, open orders submitted via that session for the impacted matching engine(s) can be cancelled automatically.	No	• Cancel All Open Orders • Do Not Cancel All Open Orders **(Default)**	√	√

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Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
9.	**Duplicate Order Check**	Protects members from sending more than the specified number of duplicate orders in a rolling time window.	No		√	√
9.a	*Time Window*	The rolling time window, for the Duplicate Order Check		Should be specified in milliseconds. *Valid values announced via Pearl Equities Regulatory Circular*	√	√
9.b	*Count*	The maximum number of duplicate orders with the same Symbol, MPID, Side, Price, and OrdQty permitted within the Time Window.		*Valid values announced via Pearl Equities Regulatory Circular*	√	√
9.c	*Trigger Action*	Action taken when Duplicate Order Check protection is enabled and triggered.		• **Reject** - Rejects new orders for the remainder of the Time Window for the MPID that triggered the protection • **Disable** - Disables new order entry on port for the MPID that triggered the protection. Must call Trading Operations to re- enable.	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
10.	**Market Order Price Protection**	Protection to reject market orders if there is no contra-side away market price.	No	By default, this protection is disabled.	√	√
11.	**Limit Order Price Protection**	Protection to reject Limit Orders if their limit price equals or exceeds the NBBO by the greater of the Dollar Limit and Percentage Limit.	Yes	Custom Dollar and Percentage Limits can be set for the following Limit Price Ranges: • <$1 • >= $1 & < $10 • >= $10 & < $50 • >= $50 & < $100 • >= $100 & < $500 • >= $500	√	√
11.a	*Dollar Limit*	Custom Dollar Limit if specified by the member, else exchange default Dollar Limit for the price range in which the order's limit price falls.		Should be specified in increments of a penny at or above $1.00 and in 1/100ths of a penny under $1.00. *Valid values announced via Pearl Equities Regulatory Circular*	√	√
11.b	*Percentage Limit*	Custom Percentage Limit if specified by the member, else exchange default Percentage Limit for the price range in which the order's limit price falls.		Should be specified in whole percentage increments. *Valid values announced via Pearl Equities Regulatory Circular*	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
12.	**Unsolicited Working Price Updates**	Enable receipt of all unsolicited Working Price updates on a session	No	By default, Working Price Update will be sent only when - the order first rests on the orderbook - the member modifies the order that results in priority loss and the modified order rests on the orderbook	√	√
13.	**List of MPID(s) permitted**	MPID(s) that can be submitted on orders via this session.	Yes	Valid NSCC MPID(s)	√	√
14.	**Attributable**	Members can choose to have all orders automatically attributed on the market data feed upon receipt via this feature. Port attribute can be over-ridden on an order by order basis.	No	• Attributed to Firm MPID • Attributed "RTAL" to this order • Not Attributable **(Default)**	√	X
15.	**Average Daily Volume (ADV) Check**	Reject orders with size exceeding the Average Daily Volume traded in the symbol in the last 20 trading days multiplied by the % specified.	No	By default, this protection is disabled.	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
15.a	*ADV Percentage*	Custom Percentage of the ADV specified by the member.		Minimum value is 1% and increments of full percent thereafter.		
15.b	*Minimum Symbol ADV*	The minimum ADV required in a symbol for the check to be applied.		• When opting into the protection this value has to be specified for the check to be applied. • A value of 0 will prevent the minimum ADV check being applied.		
15.1	**Average Daily Volume (ADV) Session Symbol Overrride**	Protection to reject orders with size exceeding the Average Daily Volume traded in the symbol in the last 20 trading days multiplied by the percentage specified.	No	By default, this protection is disabled. If an order is received from a session (that has ADV protection enabled) (15) in a security (that has a custom ADV protection) (15.1), the custom ADV protection will trump the session level protection – regardless of whether it is more conservative or not.		
15.1.a	*ADV Threshold Percentage*	Custom Percentage of the ADV specified by the member.		Minimum value is 1% and increments of full percent thereafter.		

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
16.	**Regulation SHO Restricted Security List Reject**	Disallow entry of Sell Short and Sell Short Exempt orders received in a security that falls within the member provided Regulation SHO Restricted Security List.	No	By default, this protection is disabled. Ticker symbol for the securities in NASDAQ Integrated Platform format.	√	√
17.	**Restricted Security List Reject**	Disallow entry of orders received in a security that falls within the member provided Restricted Security List.	No	By default, this protection is disabled. Ticker symbol for the securities in NASDAQ Integrated Platform format.	√	√
18.	**Non Agency Reject**	Disallow entry of orders marked with a capacity of Principal or Riskless Principal.	No	By default, this protection is disabled.	√	√
19.	**Override Capacity to Agency**	Override all orders received to a capacity of "Agency" regardless of the capacity stated on the order (Agency, Principal, Riskless Principal)	No	By default, this override is off.	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
20.	**Order Rate Check – For the Session with Automatic Reset**	Protects members from sending more than the specified number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests) in a rolling time window on the session.	No		√	√
20.a	*Time Window*	The rolling time window, for the Order Rate Check		Should be specified in seconds. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
20.b	*Count*	The number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests) permitted within the Time Window.		*Valid values to be announced via Pearl Equities Regulatory Circular*	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
20.c	*Trigger Action*	Action taken when Order Rate Check protection is enabled and triggered.		• **Reject** - Rejects new orders and modification requests for the remainder of the Time Window. Order Cancellations will continue to be accepted.	√	√
20.1	**Order Rate Check – For the Session with Manual Reset**	Protects members from sending more than the specified number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests) in a rolling time window on one or more sessions.	No		√	√
20.1.a	*Time Window*	The rolling time window, for the Order Rate Check		Should be specified in seconds. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
20.1.b	*Count*	The number of order messages (New Orders, Order Modification Requests		*Valid values to be announced via Pearl Equities Regulatory Circular*	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
		and Order Cancellation Requests) permitted within the Time Window.				
20.1.c	*Trigger Action*	Action taken when Order Rate Check protection is enabled and triggered.		• **Warning Only** - Send a warning notification via email to Trade Operations. There will be no impact to the member's order entry activity. • **Block Only** - Reject all subsequent new orders received. Send an email notification to Trade Operations indicating the block. • **Block and Mass Cancel** - Reject all subsequent new orders and cancel all open orders. Send an email notification to Trade Operations indicating the action taken.	√	√

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Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
20.2	**Order Rate Check – For Session + MPID with Automatic Reset**	Protects members from sending more than the specified number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests) in a rolling time window on the session per MPID.	No		√	√
20.2.a	*Time Window*	The rolling time window, for the Order Rate Check		Should be specified in seconds. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
20.2.b	*Count*	The number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests) permitted within the Time Window.		*Valid values to be announced via Pearl Equities Regulatory Circular*	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
20.2.c	*Trigger Action*	Action taken when Order Rate Check protection is enabled and triggered.		• **Reject** - Rejects new orders and modification requests for the remainder of the Time Window. Order Cancellations will continue to be accepted.	√	√
20.3	**Order Rate Check - For Session + MPID + Symbol with Automatic Reset**	Protects members from sending more than the specified number of order messages (New Orders, Order Modification Request and Order Cancellation Request) in a rolling time window on the session per MPID per symbol.	No		√	√
20.3.a	*Time Window*	The rolling time window, for the Order Rate Check		Should be specified in seconds. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
20.3.b	*Count*	The number of order messages (New Orders, Order Modification Requests		• *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
20.3.c	*Trigger Action*	Action taken when Order Rate Check protection is enabled and triggered.		• **Reject** - Rejects new orders and modification requests for the remainder of the Time Window sent by the MPID in the symbol. Order Cancellations will continue to be accepted.	√	√
21.	**Market Impact Collar**	Prevent limit orders from executing at prices that are too far through the current market upon entry.	No	Custom Percentage Limits can be set for the following Limit Price Ranges: • <$0.75 • >= $0.75 & <= $3 • > $3 Custom Dollar Limits can be set for the following Limit Price Range: • <$0.75	√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
21.a	*Dollar Limit*	Custom Dollar Limit if specified by the member, else exchange default Dollar Limit for the price range in which the order's limit price falls.		Custom Dollar Limits can be specified in increments of a penny. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
21.b	*Percentage Limit*	Custom Percentage Limit if specified by the member.		Should be specified in whole percentage increments. *Valid values to be announced via Pearl Equities Regulatory Circular*	√	√
22.	**Cumulative Risk Metrics (CRM): Maximum Gross Notional Trade Value**	Protection to limit the gross notional exposure aggregated across multiple trades for a Risk Protection Group, for a day to a specified maximum value. Gross Notional Trade Value = (Sum of Notional Value of Sell Side Trades) + (Sum of Notional Value of Buy Side Trades)	No		√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
22.1	*RiskProtectionGroup / MetricName*	Risk Protection Group defined by the member for the session.				
22.2	*MaxGrossNotional*	Custom Max Gross Notional Trade Value specified by the member.				
22.3	*Trigger Action*	Action taken when Max Gross Notional Trade Value protection is enabled and triggered.		• **Block and Mass Cancel** - System will reject all subsequent new orders and cancel all open orders on the exchange for the specified Risk Protection Group. • **Block Only** - System will reject all subsequent new orders but will not cancel all open orders on the exchange for the specified Risk Protection Group.		

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
23.	**Cumulative Risk Metrics (CRM): Maximum Net Notional Trade Value**	Protection to limit the net notional exposure aggregated across multiple trades for a Risk Protection Group, for a day to a specified maximum value. Net Notional Trade Value = Absolute Value of [(Sum of Notional Value of Buy Side Trades) – (Sum of Notional Value of Sell Side Trades)]	No		√	√
23.1	*RiskProtectionGroup / MetricName*	Risk Protection Group defined by the member for the session.				
23.2	*MaxNetNotional*	Custom Max Net Notional Trade Value specified by the member.				
23.3	*Trigger Action*	Action taken when Max Net Notional Trade Value protection is enabled and triggered.		• **Block and Mass Cancel** - System will reject all subsequent new orders and cancel all open orders on the exchange for the		

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
				specified Risk Protection Group. • **Block Only** - System will reject all subsequent new orders but will not cancel all open orders on the exchange for the specified Risk Protection Group.		
24.	**Cumulative Risk Metrics (CRM): Maximum Gross Notional Open Value**	Protection to limit the gross notional exposure aggregated across multiple open orders for a Risk Protection Group, for a day to a specified maximum value. Gross Notional Open Value = (Sum of Notional Value of Sell Side Open Orders) + (Sum of Notional Value of Buy Side Open Orders)	No		√	√
24.1	*Risk ProtectionGroup / MetricName*	Risk Protection Group defined by the member for the session.				

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Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
24.2	*MaxGrossNotional*	Custom Max Gross Notional Open Value specified by the member.				
24.3	*Trigger Action*	Action taken when Max Gross Notional Open Value protection is enabled and triggered.		• **Block and Mass Cancel** - System will reject all subsequent new orders and cancel all open orders on the exchange for the specified Risk Protection Group. • **Block Only** - System will reject all subsequent new orders but will not cancel all open orders on the exchange for the specified Risk Protection Group.		
25.	**Cumulative Risk Metrics (CRM): Maximum Net Notional Open Value**	Protection to limit the net notional exposure aggregated across multiple open orders for a Risk Protection Group, for a day to a specified maximum value.	No		√	√

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
		Net Notional Open Value = Absolute Value of [(Sum of Notional Value of Buy Side Open Orders) – (Sum of Notional Value of Sell Side Open Orders)]				
25.1	*Risk ProtectionGroup / MetricName*	Risk Protection Group defined by the member for the session.				
25.2	*MaxNetNotional*	Custom Max Net Notional Open Value specified by the member.				
25.3	*Trigger Action*	Action taken when Max Net Notional Open Value protection is enabled and triggered.		• **Block and Mass Cancel** - System will reject all subsequent new orders and cancel all open orders on the exchange for the specified Risk Protection Group. • **Block Only** - System will reject all subsequent new orders but will not cancel all open orders on the		

Sr. No.	Attribute	Description	Mandatory	Valid / Default values	FOI	MEO
				exchange for the specified Risk Protection Group.		

Notes:

- Risk protections (excluding Duplicate Order Check, Order Rate Check) are latency equalized i.e. there is no latency penalty for a member when opting into and leveraging a risk protection available on the exchange as compared to a member not opting into the risk protection.

Appendix A: Revision History

Revision Date	Version	Description
Feb 06, 2020	1.0	First official release
Feb 12, 2021	1.0.a	Added a clarification about the default behavior of Working Price Updates
July 07, 2022	2.0	Added Short Sale Exempt Reject, Market Order Reject, ADV Check, Regulation SHO Restricted List, Restricted Security List, Non Agency Reject, Override Capacity to Agency, Order Rate Check, and Market Impact Collar as available protections and updated Maximum Order Notional Value protection to include MKT orders.
Aug 17, 2022	2.0.a	Updated the Order Rate Check and added Cumulative Risk Metrics (CRM) protection.

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