

#### **MIAX Pearl Equities Exchange**

## **Port Attributes**

Revision Date: 08/22/2024

Version 3.3

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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<sup>TM</sup>. Changes can be requested for each attribute by sending an email to Trading Operations at TradingOperations@miaxglobal.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.                    | V   | V         |
|         |                  |                               |           |  |     |           |
| 2.      | Allow Short Sale | Allow entry of Sell           | No        | By default, Sell Short orders are allowed.             |     | $\sqrt{}$ |
|         | Order            | Short orders.                 |           |  |     |           |
|         |                  |                               |           |  |     |           |
| 3.      | Allow Short Sale | Allow entry of Sell           | No        | By default, Sell Short Exempt orders are allowed.      |     | $\sqrt{}$ |
|         | Exempt Order     | Short Exempt orders.          |           |  |     |           |
|         |                  |                               |           |  |     |           |
| 4.      | Market Order     | Disallow entry of             | No        | By default, Market orders are allowed.                 |     | $\sqrt{}$ |
|         | Reject           | Market orders.                |           |  |     |           |
|         |                  | 1                             |           |  |     |           |
| 5.      | Maximum Order    | Maximum number of             | Yes       | Custom Maximum Order Size limits apply if specified by | V   | $\sqrt{}$ |
|         | Size             | shares allowed per            |           | the member, else exchange default will be applied.     |     |           |
|         |                  | order.                        |           |  |     |           |
|         |                  |                               |           | 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<br>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 | ٧   | V   |
| 7.      | Auto Cancel on<br>Disconnect (ACOD)<br>for Order Entry<br>Session | 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        | <ul> <li>Cancel All Open Orders</li> <li>Do Not Cancel All Open Orders (Default)</li> </ul>  | V   | 1   |
| 7.1     | Auto Cancel on<br>Disconnect (ACOD)<br>for Drop Session           | In the event that a member's drop session with the exchange is disconnected, orders submitted via the entitled order entry session(s) that are open on the orderbook can be cancelled automatically upon disconnect. | No        | <ul> <li>Cancel All Open Orders</li> <li>Do Not Cancel All Open Orders (Default)</li> </ul>  | N/A | N/A |

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| Sr. No. | Attribute   | Description  | Mandatory | Valid / Default values  | FOI | MEO |
|---------|---|--|-----------|---|-----|-----|
|         |   | Additionally, any new orders or order modification requests received via the entitled order entry session(s) will be rejected. Order cancellation requests will continue to be accepted. After the protection triggers, a reconnect by the member firm with its drop session will reset this protection.  Firms can request to enable ACOD on the drop sessions that are entitled only for their own order entry session(s). |           |   |     |     |
| 8.      | Auto-Cancel on<br>System/Matching<br>Engine Failure<br>(ACOSF) for Order<br>Entry Session | 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        | <ul> <li>Cancel All Open Orders</li> <li>Do Not Cancel All Open Orders (Default)</li> </ul> | V   | V   |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values   | FOI | MEO |
|---------|--|---|-----------|--|-----|-----|
| 8.1     | Auto-Cancel on<br>System/Matching<br>Engine Failure<br>(ACOSF) for Drop<br>Session | In the event of a Matching Engine or drop session failure, members may request that their open orders submitted via order entry session(s) entitled on the drop are cancelled automatically. Any new orders or order modification requests received via the entitled order entry session(s) will be rejected. Order cancellation requests will continue to be accepted.  Orders submitted via any of the member's other sessions will not be affected. Additionally, orders submitted to any Matching Engines that are not impacted will not be affected. | No        | Cancel All Open Orders     Do Not Cancel All Open Orders (Default) | N/A | N/A |
|         |  | Firms can request to enable ACOSF only  |           |  |     |     |

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| Sr. No. | Attribute       | Description                                | Mandatory | Valid / Default values  | FOI | MEO |
|---------|-----------------|--|-----------|---|-----|-----|
|         |                 | on the drop sessions that are entitled for |           |   |     |     |
|         |                 | their own order entry                      |           |   |     |     |
|         |                 | session(s).                                |           |   |     |     |
|         |                 | ,  |           |   |     |     |
| 9.      | Duplicate Order | Protects members                           | No        |   |     | V   |
|         | Check           | from sending more                          |           |   |     |     |
|         |                 | than the specified                         |           |   |     |     |
|         |                 | number of duplicate                        |           |   |     |     |
|         |                 | orders in a rolling time                   |           |   |     |     |
|         | T' 14/' /       | window.                                    |           |   |     |     |
| 9.a     | Time Window     | The rolling time                           |           | Should be specified in milliseconds.                          |     |     |
|         |                 | window, for the Duplicate Order            |           | Valid values announced via Pearl Equities Regulatory          |     |     |
|         |                 | Check                                      |           | Circular  |     |     |
|         |                 | Officer                                    |           | Girculai  |     |     |
| 0.1     | 0               | The second second                          |           | Will of the second in Book For Was Book Inc.                  |     |     |
| 9.b     | Count           | The maximum                                |           | Valid values announced via Pearl Equities Regulatory Circular |     |     |
|         |                 | number of duplicate orders with the same   |           | Circular  |     |     |
|         |                 | Symbol, MPID, Side,                        |           |   |     |     |
|         |                 | Price, and OrdQty                          |           |   |     |     |
|         |                 | permitted within the                       |           |   |     |     |
|         |                 | Time Window.                               |           |   |     |     |
| 9.c     | Trigger Action  | Action taken when                          |           | Reject - Rejects new orders for the remainder of              |     |     |
|         |                 | Duplicate Order                            |           | the Time Window for the MPID that triggered the               |     |     |
|         |                 | Check protection is                        |           | protection  |     |     |
|         |                 | enabled and                                |           | Disable - Disables new order entry on port for the            |     |     |
|         |                 | triggered.                                 |           | MPID that triggered the protection. Must call                 |     |     |
|         |                 |  |           | Trading Operations to re- enable.                             |     |     |
|         |                 |  |           |   |     |     |

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| Sr. No. | Attribute                        | Description  | Mandatory | Valid / Default values  | FOI      | MEO      |
|---------|----------------------------------|--|-----------|---|----------|----------|
| 10.     | Market Order Price<br>Protection | Protection to reject<br>market orders if there<br>is no contra-side<br>away market price.  | No        | By default, this protection is disabled.  | 1        | V        |
| 11.     | Limit Order Price<br>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:  | <b>√</b> | <b>√</b> |
| 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  |          |          |

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| Sr. No. | Attribute  | Description  | Mandatory | Valid / Default values   | FOI      | MEO      |
|---------|--|--|-----------|--|----------|----------|
| 11.c    | Limit Order Price Protection Extended Hours Multiplier | Limit Order Price Protection Extended Hours Multiplier which will be in effect when calculating the Price Limit during the Early and Late Trading Sessions.  The Limit Order Price Protection Extended Hours Multiplier will be applied to both the percentage and dollar values when calculating the Price Limit. |           | Minimum Value: 1 Maximum Value: 3 Increment 0.5  |          |          |
| 12.     | Unsolicited<br>Working Price<br>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 | <b>√</b> | <b>V</b> |
| 13.     | List of MPID(s) permitted                              | MPID(s) that can be submitted on orders via this session.  | Yes       | Valid NSCC MPID(s)   | √        | V        |
| 14.     | Attributable   | Members can choose to have all orders automatically  | No        | <ul> <li>Attributed to Firm MPID</li> <li>Attributed "RTAL" to this order</li> <li>Not Attributable (Default)</li> </ul>   | V        | X        |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values   | FOI | MEO |
|---------|--|---|-----------|--|-----|-----|
|         |  | attributed on the market data feed upon receipt via this feature. Port attribute can be over-ridden on an order by order basis.                                   |           |  |     |     |
|         |  |   |           |  |     |     |
| 15.     | Average Daily<br>Volume (ADV)<br>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.   | V   | V   |
| 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<br>ADV  | The minimum ADV required in a symbol for the check to be applied.   |           | <ul> <li>When opting into the protection this value has to be specified for the check to be applied.</li> <li>A value of 0 will prevent the minimum ADV check being applied.</li> </ul>  |     |     |
| 15.1    | Average Daily<br>Volume (ADV)<br>Session Symbol<br>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. | V   | V   |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values   | FOI      | MEO      |
|---------|--|---|-----------|--|----------|----------|
| 15.1.a  | ADV Threshold<br>Percentage                          | Custom Percentage of the ADV specified by the member.   |           | Minimum value is 1% and increments of full percent thereafter.   |          |          |
| 16.     | Regulation SHO<br>Restricted Security<br>List Reject | Disallow entry of Sell<br>Short and Sell Short<br>Exempt orders<br>received in a security<br>that falls within the<br>member provided<br>Regulation SHO<br>Restricted Security<br>List. | No        | By default, this protection is disabled.  Ticker symbol for the securities in NASDAQ Integrated Platform format. | \ \ \    | <b>V</b> |
| 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. | <b>V</b> | V        |
| 18.     | Non Agency Reject                                    | Disallow entry of orders marked with a capacity of Principal or Riskless Principal.   | No        | By default, this protection is disabled.   | √ V      | √        |
| 19.     | Override Capacity to Agency                          | Override all orders received to a capacity of "Agency" regardless of the  | No        | By default, this override is off.  | √        | <b>√</b> |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values   | FOI      | MEO |
|---------|--|---|-----------|--|----------|-----|
|         |  | capacity stated on the order (Agency, Principal, Riskless Principal)  |           |  |          |     |
|         |  |   |           |  |          |     |
| 20.     | Order Rate Check –<br>For the Session<br>with Automatic<br>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        |  | <b>V</b> | V   |
| 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 (configurable see 20.c)) permitted within the Time Window.                                  |           | Valid values to be announced via Pearl Equities Regulatory Circular                                  |          |     |

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| Sr. No. | Attribute  | Description  | Mandatory | Valid / Default values   | FOI                                   | MEO      |
|---------|--|--|-----------|--|---------------------------------------|----------|
| 20.c    | Exclude Cancel<br>Request from Count                       | The ability to select whether Order Cancellation Requests should be excluded from the Count.   |           | By default this is off, Order Cancellation Requests are included in the count.   |                                       |          |
| 20.d    | 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 –<br>For the Session<br>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        |  | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <b>V</b> |

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| Sr. No. | Attribute                            | Description  | Mandatory | Valid / Default values   | FOI | MEO |
|---------|--------------------------------------|--|-----------|--|-----|-----|
| 20.1.a  | Time Window                          | The rolling time window, for the Order   |           | Should be specified in seconds.  |     |     |
|         |                                      | Rate Check   |           | Valid values to be announced via Pearl Equities Regulatory Circular            |     |     |
| 20.1.b  | Count                                | The number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests (configurable see 20.1.c)) permitted within the Time Window. |           | Valid values to be announced via Pearl Equities Regulatory Circular            |     |     |
| 20.1.c  | Exclude Cancel<br>Request from Count | The ability to select whether Order Cancelation Requests should be excluded from the Count.  |           | By default this is off, Order Cancellation Requests are included in the count. |     |     |

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| Sr. No. | Attribute      | Description   | Mandatory | Valid / Default values  | FOI | MEO |
|---------|----------------|---|-----------|---|-----|-----|
| 20.1.d  | Trigger Action | Action taken when Order Rate Check protection is enabled and triggered. |           | <ul> <li>Warning Only - Send a warning notification via email to Trade Operations. There will be no impact to the member's order entry activity.</li> <li>Block Only - Reject all subsequent new orders received. Send an email notification to Trade Operations indicating the block.</li> <li>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.</li> </ul> |     |     |

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| Sr. No. | Attribute   | Description  | Mandatory | Valid / Default values   | FOI | MEO |
|---------|---|--|-----------|--|-----|-----|
| 20.2    | Order Rate Check –<br>For Session +<br>MPID with<br>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        |  | √   | V   |
| 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 (configurable see 20.2.c)) permitted within the Time Window.   |           | Valid values to be announced via Pearl Equities Regulatory Circular                                  |     |     |

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| Sr. No. | Attribute   | Description   | Mandatory | Valid / Default values  | FOI | MEO |
|---------|---|---|-----------|---|-----|-----|
| 20.2.c  | Exclude Cancel<br>Request from Count  | The ability to select whether Order Cancelation Requests should be excluded from the Count.   |           | By default this is off, Order Cancellation Requests are included in the count.  |     |     |
| 20.2.d  | Trigger Action  | Action taken when Order Rate Check protection is enabled and triggered.   |           | Reject - Rejects new orders and modification<br>requests for the remainder of the Time Window.<br>Order Cancellations will continue to be accepted. |     |     |
| 20.3    | Order Rate Check -<br>For Session +<br>MPID + Symbol<br>with Automatic<br>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        |   | V   | V   |

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| Sr. No. | Attribute                            | Description  | Mandatory | Valid / Default values  | FOI | MEO |
|---------|--------------------------------------|--|-----------|---|-----|-----|
| 20.3.a  | Time Window                          | The rolling time<br>window, for the Order<br>Rate Check  |           | Should be specified in seconds.  Valid values to be announced via Pearl Equities Regulatory Circular  |     |     |
| 20.3.b  | Count                                | The number of order messages (New Orders, Order Modification Requests and Order Cancellation Requests (configurable see 20.3.c)) permitted within the Time Window. |           | Valid values to be announced via Pearl Equities Regulatory Circular   |     |     |
| 20.3.c  | Exclude Cancel<br>Request from Count | The ability to select whether Order Cancelation Requests should be excluded from the Count.  |           | By default this is off, Order Cancellation Requests are included in the count.  |     |     |
| 20.3.d  | Trigger Action                       | Action taken when Order Rate Check protection is enabled and triggered.  |           | Reject - Rejects new orders and modification<br>requests for the remainder of the Time Window<br>sent by the MPID in the symbol. Order<br>Cancellations will continue to be accepted. |     |     |

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| Sr. No. | Attribute                | Description  | Mandatory | Valid / Default values   | FOI | MEO |
|---------|--------------------------|--|-----------|--|-----|-----|
| 21.     | Market Impact<br>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 | V   | V   |
| 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<br>Limit if specified by<br>the member.  |           | Should be specified in whole percentage increments.  Valid values to be announced via Pearl Equities Regulatory Circular   |     |     |
| 21.c    | Extended Hours Multipler | Extended Hours Multiplier which will be in effect when calculating the Market Impact Collar during the Early and Late Trading Sessions.  The Extended Hours Multiplier will be applied to both the |           | Minimum Value: 0 Maximum Value: 5 Increment 0.5  |     |     |

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| Sr. No. | Attribute   | Description   | Mandatory | Valid / Default values | FOI | MEO |
|---------|---|---|-----------|------------------------|-----|-----|
|         |   | percentage and dollar values when calculating the Market Impact Collar.   |           |                        |     |     |
|         |   |   |           |                        |     |     |
| 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        |                        | ~   | ~   |
| 22.1    | RiskProtectionGroup<br>/ MetricName                               | Risk Protection Group defined by the member for the session.  |           |                        |     |     |
| 22.2    | MaxGrossNotional  | Custom Max Gross<br>Notional Trade Value<br>specified by the<br>member.   |           |                        |     |     |

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| Sr. No. | Attribute           | Description   | Mandatory | Valid / Default values   | FOI | MEO |
|---------|---------------------|---|-----------|--|-----|-----|
| 22.3    | Trigger Action      | Action taken when Max Gross Notional Trade Value protection is enabled and triggered. |           | <ul> <li>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.</li> <li>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.</li> </ul> |     |     |
| 00      | Cumulative Risk     | Data da la Parte  | NI.       |  |     |     |
| 23.     | Metrics (CRM):      | Protection to limit the net notional exposure   | No        |  | V   | ν   |
|         | Maximum Net         | aggregated across   |           |  |     |     |
|         | Notional Trade      | multiple trades for a   |           |  |     |     |
|         | Value               | 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)]  |           |  |     |     |
| 23.1    | RiskProtectionGroup | Risk Protection Group   |           |  |     |     |
|         | / MetricName        | defined by the  |           |  |     |     |
|         |                     | member for the  |           |  |     |     |
|         |                     | session.  |           |  |     |     |

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| Sr. No. | Attribute       | Description  | Mandatory | Valid / Default values   | FOI | MEO |
|---------|-----------------|--|-----------|--|-----|-----|
| 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.  |           | <ul> <li>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.</li> <li>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.</li> </ul> |     |     |
|         |                 |  |           |  |     |     |
| 24.     | Cumulative Risk | Protection to limit the  | No        |  | V   | V   |
|         | Metrics (CRM):  | gross notional   |           |  |     |     |
|         | Maximum Gross   | exposure aggregated  |           |  |     |     |
|         | Notional Open   | across multiple open   |           |  |     |     |
|         | Value           | 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) |           |  |     |     |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values   | FOI      | MEO |
|---------|--|---|-----------|--|----------|-----|
| 24.1    | RiskProtectionGroup / MetricName   | Risk Protection Group<br>defined by the<br>member for the<br>session.   |           |  |          |     |
| 24.2    | MaxGrossNotional   | Custom Max Gross<br>Notional Open Value<br>specified by the<br>member.  |           |  |          |     |
| 24.3    | Trigger Action   | Action taken when Max Gross Notional Open Value protection is enabled and triggered.  |           | <ul> <li>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.</li> <li>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.</li> </ul> |          |     |
| 25.     | Cumulative Risk<br>Metrics (CRM):<br>Maximum Net<br>Notional Open<br>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.  Net Notional Open Value = Absolute Value of [(Sum of Notional Value of Buy | No        |  | <b>V</b> | √ · |

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| O:: N   | A ( ( o l) a c ( o   | December 11 and 12 and | Man late  | W-P-1/D-(collection)   | FOL | MEG |
|---------|--|---|-----------|--|-----|-----|
| Sr. No. | Attribute  RiskProtectionGroup / MetricName  | Side Open Orders) – (Sum of Notional Value of Sell Side Open Orders)] Risk Protection Group defined by the member for the session.  | Mandatory | Valid / Default values   | FOI | MEO |
| 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.  |           | <ul> <li>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.</li> <li>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.</li> </ul> |     |     |
|         |  |   |           |  |     |     |
| 26.     | Cumulative Risk<br>Metrics (CRM):<br>Maximum Gross<br>Notional Trade and<br>Open Value | Protection to limit the gross notional exposure aggregated across multiple trades and open orders for a Risk Protection Group, for a day to a specified maximum value.  | No        |  | V   | V   |

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| Sr. No. | Attribute           | Description   | Mandatory | Valid / Default values   | FOI | MEO |
|---------|---------------------|---|-----------|--|-----|-----|
| 26.1    | RiskProtectionGroup | Gross Notional Trade and Open Value = (Sum of Notional Value of Sell Side Trades) + (Sum of Notional Value of Buy Side Trades) + (Sum of Notional Value of Sell Side Open Orders) + (Sum of Notional Value of Buy Side Open Orders) Risk Protection Group |           |  |     |     |
|         | / MetricName        | defined by the member for the session.  |           |  |     |     |
| 26.2    | MaxGrossNotional    | Custom Max Gross Notional Trade and Open Value specified by the member.   |           |  |     |     |
| 26.3    | Trigger Action      | Action taken when Max Gross Notional Trade and Open Value protection is enabled and triggered.  |           | <ul> <li>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.</li> <li>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.</li> </ul> |     |     |

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| Sr. No. | Attribute  | Description  | Mandatory | Valid / Default values  | FOI | MEO   |
|---------|--|--|-----------|---|-----|-------|
| 27.     | Cumulative Risk Metrics (CRM): Maximum Net Notional Trade and Open Value | Protection to limit the net notional exposure aggregated across multiple trades and open orders for a Risk Protection Group, for a day to a specified maximum value.  Net Notional Trade and Open Value = Absolute Value of [(Sum of Notional Value of Buy Side Open Orders + Buy Side Trades) – (Sum of Notional Value of Sell Side Open Orders + Sell Side | No        |   | 7   | √<br> |
| 27.1    | RiskProtectionGroup<br>/ MetricName                                      | Trades)] Risk Protection Group defined by the member for the session.  |           |   |     |       |
| 27.2    | MaxNetNotional   | Custom Max Net Notional Trade and Open Value specified by the member.  |           |   |     |       |
| 27.3    | Trigger Action   | Action taken when Max Net Notional Trade and Open  |           | Block and Mass Cancel - System will reject all<br>subsequent new orders and cancel all open orders<br>on the exchange for the specified Risk Protection |     |       |

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| Sr. No. | Attribute                      | Description  | Mandatory | Valid / Default values  | FOI | MEO      |
|---------|--------------------------------|--|-----------|---|-----|----------|
|         |                                | Value protection is enabled and triggered.   |           | <ul> <li>Group.</li> <li>Block Only - System will reject all subsequent<br/>new orders but will not cancel all open orders on<br/>the exchange for the specified Risk Protection<br/>Group.</li> </ul>  |     |          |
| 28.     | Self-Trade<br>Protection       | Self-Trade Protection is a risk management tool that members may use to protect themselves from trading with their own orders. | No        | By default, this protection is disabled.  | ٧   | <b>V</b> |
| 28.1    | Self-Trade<br>Protection Level | Self-Trade Protection<br>Level specified by the<br>member.   |           | <ul> <li>MPID Level Protection - An order from a specific MPID will not execute against an order sent from the same MPID.</li> <li>Firm Level Protection - An order from a specific Firm will not execute against another order sent from the same Firm.</li> <li>Parent Group Protection - Allows member to aggregate multiple associated Firms under one parent umbrella. An order from a Firm will not execute against an order from a Firm in the same Parent Group.</li> </ul> |     |          |

#### MIAX Pearl Equities Exchange

Port Attributes

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| Sr. No. | Attribute                               | Description  | Mandatory | Valid / Default values   | FOI | MEO |
|---------|---|--|-----------|--|-----|-----|
| 28.2    | Self-Trade<br>Protection<br>Instruction | Self-Trade Protection Instruction as specified by the member which specifies the system behavior that will be enforced when a self- trade is about to occur. |           | <ul> <li>Cancel Newest – MIAX Pearl Equities will cancel the newer order when enforcing Self-Trade Protection.</li> <li>Cancel Oldest – MIAX Pearl Equities will cancel the older order when enforcing Self-Trade Protection.</li> <li>Cancel Both – MIAX Pearl Equities will cancel both the buy and sell orders when enforcing Self-Trade Protection.</li> <li>Decrement and Cancel – MIAX Pearl Equities will do the following when enforcing the Self-Trade Protection:</li> <li>If the orders are of equivalent open size, both the orders will be cancelled fully.</li> <li>If the orders are not equivalent in open size:         <ul> <li>The open size of the smaller order will be cancelled back to the user.</li> <li>The larger order will be decremented by a size that is equivalent to the open size of the smaller order. Balance size of the larger order will be able to continue trading.</li> </ul> </li> </ul> |     |     |
| 28.3    | Self-Trade<br>Protection Group          | Self-Trade Protection<br>Group provides a way<br>to create a more<br>granular group within<br>the same MPID, Firm<br>or Parent Group.                        |           | Member can provide a value between "A" to "Z", "a" to "z" or an integer 0 to 9. The value is case sensitive.   |     |     |

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| Sr. No. | Attribute                         | Description   | Mandatory | Valid / Default values                   | FOI | MEO            |
|---------|-----------------------------------|---|-----------|--|-----|----------------|
|         |                                   |   |           |  |     | ,              |
| 29.     | Validate Locate Account           | Protection that verifies the Locate Account specified on the member's Sell Short and Sell Short Exempt Orders. The Locate Account on the order is compared to a member-provided list of "valid" Locate Accounts; the order is rejected if the Locate Account provided does not match one in the list. | No        | By default, this protection is disabled. |     | 7              |
| 30.     | Early Trading Session Restriction | Protection to reject<br>any orders (with a TIF<br>other than RHO)<br>received during Pre-<br>Open or the Early<br>Trading Session.  | No        | By default, this protection is disabled. | N   | <mark>√</mark> |

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| Sr. No. | Attribute  | Description   | Mandatory | Valid / Default values                   | FOI | MEO |
|---------|--|---|-----------|--|-----|-----|
| 30.1    | Early Trading Session Restriction End Time         | Early Trading Session Protection End Time.  Can only be specified when Early Trading Restriction is enabled.  If specified this is the point in time at which   |           |  |     |     |
|         |  | this protection will be disabled.   |           |  |     |     |
|         |  | T <b>-</b>  |           |  |     |     |
| 31.     | Late Trading Session Restriction                   | Protection to reject any orders during the Late Trading Session.  | No        | By default, this protection is disabled. | N   | N.  |
| 31.1    | Late Trading Session Restriction Start Offset Time | Late Trading Session Protection Start Offset Time.  Can only be specified when Late Trading Restriction is enabled.  If specified this offset will be added to the Regular Session End Time and this is the |           |  |     |     |

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| Sr. No. | Attribute | Description             | Mandatory | Valid / Default values | FOI | MEO |
|---------|-----------|-------------------------|-----------|------------------------|-----|-----|
|         |           | point in time at which  |           |                        |     |     |
|         |           | this protection will be |           |                        |     |     |
|         |           | enabled.                |           |                        |     |     |
|         |           |                         |           |                        |     |     |
|         |           |                         |           |                        |     |     |
|         |           |                         |           |                        |     |     |
|         |           |                         |           |                        |     |     |
|         |           |                         |           |                        |     |     |
|         |           |                         |           |                        |     | ı   |

#### Notes:

• All the above Risk protections 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.

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Last Revision Date: 08/22/2024



# **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   | Added Order Rate Check + MPID scope and Cumulative Risk Metrics (CRM).   |
| Mar 06, 2023  | 3.0     | Added ACOD and ACOSF for Drop copy, Cumulative Risk Metric for Gross and Net Trade and Open Value. Updated Order Rate Protection to have Cancel request as an optional selection. Updated the note to reflect that all Risk protections are latency equalized.   |
| Sept 25, 2023 | 3.1     | Added Self Trade Protection as an available risk protection.   |
| Jan 24, 2024  | 3.2     | Added Validate Locate Account as an available risk protection.   |
| Aug 22, 2024  | 3.3     | Added Early and Late Trading Session Restriction as an available risk protection.  Updated the Limit Order Price Protection and Market Impact Collar Risk protection to have Extended hour multiplier as an optional selection.  |

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