

Fractional Pricing

This topic describes processing required for certain CME Group products that require a decimal-to-fractional price conversion. All required conversion inputs are contained in the [Security Definition \(tag 35-MsgType=d\)](#) message.

Within the Security Definition message, the tag 871-872 repeating group pair indicates that the product has a fractional display price. Tags 37702 and 37703 indicate the main and sub fractions, respectively. Tag 9787-DisplayFactor and tag 9800-PriceDisplayFormat provide the information for formatting the resulting fractional price.

Tag	FIX Name	Description
871	InstrAttribType	Tag 871-InstrAttribType and tag 872-InstrAttribValue function together where tag 871 indicates the type of value that the following tag 872 will contain. '24' = Eligibility
872	InstrAttribValue	When bit 11 = '1', this indicates product has fractional display price.
37702	MainFraction	Price denominator of main fraction.
37703	SubFraction	Price denominator sub fraction.
9800	PriceDisplayFormat	Number of digits to the right of tick mark; location of tick mark between whole and non-whole numbers. Example: where tag 9800=3, display fractional price as: 112'200

EXCEPTION: For products that tick in modified fourths (30-Day Fed Funds options and Rough Rice options), the decimal '.5' is denoted in the price display. The Display Factor will be sent as '01' but should be treated as '00'. For example, an actual price of '12.5' would be displayed as '12' even though the display factor value '01' normally dictates a display of '12.5'. **Therefore, client systems must include the .5 in the fractional conversion to decimal calculation for these products.**

See also:

- [Fractional Pricing - Display Examples](#)
- [Fractional Pricing - Examples for Order Entry](#)
- [Fractional Pricing - Tick and Decimal Conversions](#)
- [Fractional Price Processing for BrokerTec Products](#)



The Tick Conversion Grid provides a downloadable spreadsheet that contains comprehensive tick conversion information.