

## Product functions

### ■ Real-time Data Analyzer

| Item                                        | Outline                                                                                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display functions                           |                                                                                                                                                                                                                                  |
| Read data display                           | To display data of a CSV file as a waveform. Analysis by overlapping or connecting data can be performed.                                                                                                                        |
| Read data statistics display                | To calculate and display the statistics of CSV file data. The changes of statistics and correlation of data can be analyzed.                                                                                                     |
| Read data frequency display                 | To perform STFT conversion and display the spectrogram, or perform Wavelet conversion and display the scalogram on data in a CSV file. Facility failure can be analyzed by visualizing the frequencies.                          |
| Simplified analysis/diagnosis function      |                                                                                                                                                                                                                                  |
| SPC                                         | To calculate the statistics for each unit of collected data and diagnose it according to the SPC rule. A sign of failure can be detected based on the changes of statistics.                                                     |
| Multivariate analysis                       | To detect an event to be a trigger based on the model of the multivariate analysis result.                                                                                                                                       |
| Guard band diagnostic                       | To diagnose data by using a guard band created based on the normal waveform data. The upper and lower limit values can be specified without using the reference waveform.                                                        |
| Advanced analysis function                  |                                                                                                                                                                                                                                  |
| Correlation matrix creating                 | To create a correlation matrix for correlation analysis.                                                                                                                                                                         |
| Multiple regression analysis (LMR)          | To perform multiple regression calculation by selecting one objective variable and multiple explanatory variables to obtain the correlation between multiple variables.                                                          |
| Mahalanobis-Taguchi system (MT)             | To collect the sample of multiple variables to be referenced and calculate the Mahalanobis distance for the standard section and the changes in variation based on the correlation of multiple variables.                        |
| Analysis/diagnosis logic operation function |                                                                                                                                                                                                                                  |
| Logic editing                               | To edit the analysis and data diagnosis logics.                                                                                                                                                                                  |
| Logic variable setting                      | To edit variables used in the analysis and data diagnosis logics.                                                                                                                                                                |
| Diagnostic result display function          |                                                                                                                                                                                                                                  |
| Simplified diagnostic result display        | To display the result of simplified diagnostic (SPC, multivariate analysis, or guard band).                                                                                                                                      |
| Diagnostic logic result display             | To display the result of diagnostic logic (expansion trace GB, SPC diagnostic, log writing, and error notification).                                                                                                             |
| Similar waveform recognition function       |                                                                                                                                                                                                                                  |
| Waveform learning function                  | To create the reference waveform learning data used for similar waveform recognition. It extracts unit waveforms from a reference waveform for diagnosing the similarity.                                                        |
| Data diagnostic function                    | To monitor an inspection waveform that was input from Real-time Flow Manager and notify Real-time Flow Manager of a waveform determined to be different, that is the similarity score is lower than a threshold value, if found. |
| GX LogViewer interaction function           | To display the diagnostic status of a similar waveform recognition in GX LogViewer.                                                                                                                                              |

## Operating environment

### ■ Real-time Data Analyzer

| Item                | Outline                                                  |
|---------------------|----------------------------------------------------------|
| Industrial computer |                                                          |
| CPU                 | Intel® Core™ i3 2 cores or more                          |
| Required memory     | 8 GB or more                                             |
| OS                  |                                                          |
| Supported OS*1      | Microsoft® Windows® 10 (Pro, Enterprise, IoT Enterprise) |
| Language            | Japanese, English, Chinese (simplified)                  |
| Display             |                                                          |
| Resolution          | 1280 x 800 dot or more                                   |

\*1. Only 64-bit version is supported.

# iQ Edgexcross

| Type                      | Model            | Outline                                     |
|---------------------------|------------------|---------------------------------------------|
| Real-time Data Analyzer*4 | SW1DND-RDA-MQ12  | One year subscription license, DVD included |
|                           | SW1DND-RDA-MZQ12 | One year subscription license               |

\*4. This product can be used when one year subscription license is purchased. Please consult your local Mitsubishi Electric representative, if other license agreement is required.