

# ABB Elektro communication protocol

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## Supported device types and versions

The protocol supports reading data from electrometers (active and reactive energies) that were collected by the ABB Microscada system and published via files.

The files are expected to have a name in a format coding both the date and the time `Dyyyymmddhmi.CSV`, e.g. `D201706301247.CSV`.

The files are read with the time parameters (period, delay) configured on the station's [Time parameters](#) tab.

The protocol only supports data readout.

## Communication line configuration

- Category of communication line: [File I/O](#).

### File I/O communication line configuration parameters:

- Input file** - full path to the file or directory with data..
- Archive directory** - path to the directory, where the processed files are archived. It is a mandatory parameter. The [D2000 KOM](#) process archives the processed files in subdirectories of the archive directory with names that copy the first 9 characters of the processed file name (`D yyyymmdd`, i. e. one subdirectory for every day).

## Station configuration

- Communication protocol "**ABB Elektro**".
- The station address is not configured.
- Time parameters: In a specific case, the polling period was 15 minutes with an offset of 360 seconds.

## Station protocol parameters

Dialog window [station configuration](#) - tab "Protocol parameters".

They influence some optional protocol parameters. The following station protocol parameters can be entered:

| Parameter                   | Description                                                                                                                                                                                                            | Unit | Default Value |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|
| Delay After Processing File | Delay after processing of a file. The parameter can be useful if the communication has been offline for a longer time, i.e. a larger number of files are accumulated and their fast processing could flood the system. | s    | 0             |

## I/O tag configuration

Supported value types of I/O tags: **Ai**.

I/O tag address is an integer 16-bit number (1-65535) specified as a decimal number or as a hexadecimal number with a hash at the beginning (e.g. `#0A`). It defines an electrometer number, which is specified on every line of a data file.

This is an example of the first 15 rows of a specific file (I/O tag addresses would be 1-15):

```
E001;0
E002;6504
E003;0
E004;0
E006;3620
E007;1160
E008;196
E009;884
E010;152
E011;400
E012;140
E013;3588
E014;0
E015;0
```

## Document revisions

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- Ver. 1.0 - June 30th, 2017 - Document creation.



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