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# *MPS - Driver of MPS Protocol for Power Network Parameter Meters User's Manual*

*Doc. No. ENP4039*
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# 1. MPS - Driver of MPS Protocol for Power Network Parameter Meters

## 1.1. Driver Use

The MPS driver is used for communication with MPS power network parameter meters made by OBR Metrologii Elektrycznej in Zielona Góra, by means of a serial interface.

## 1.2. Definition of Transmission Channel

The full syntax of declaration of transmission channel operating according to the MPS protocol has the following form:

*logical_name*=MPS,*controller address,COMn*

where:

*COMn* - is the number of the serial port to which the MPS controllers network is connected.

**EXAMPLE**

An example of the channel definition. In this case, the channel is a logical name of the MPS controller.

```
[ASMEN]
...
MPS1=MPS,1,COM2
...
```

## 1.3. Names of MPS Controller Variables

A variable may be defined by means of the name *FCnn* where *nn* is a number of a variable in the controller according to the description of the controller manufacturer. It is allowed also to use symbolic names. Letter case does not matter.

***Table 1. Symbolic Names of MPS Controller Variables.***

| | |
|---|---|
| FC1 - U1 | FC30 - Z1 |
| FC2 - U2 | FC31 - Z2 |
| FC3 - U3 | FC32 - Z3 |
| FC4 - I1 | FC33 - R |
| FC5 - I2 | FC34 - R1 |
| FC6 - I3 | FC35 - R2 |
| FC7 - P | FC36 - R3 |
| FC8 - Q | FC37 - FI |
| FC9 - S | FC38 - FI1 |
| FC10 - f | FC39 - FI2 |
| FC11 - cos | FC40 - FI3 |
| FC12 - P15 | FC41 - P1s |
| FC13 - P1 | FC42 - P2s |

| | |
|---|---|
| FC14 - P2 | FC43 - P3s |
| FC15 - P3 | FC44 - U1m |
| FC16 - Q1 | FC45 - U2m |
| FC17 - Q2 | FC46 - U3m |
| FC18 - Q3 | FC47 - I1m |
| FC19 - S1 | FC48 - I2m |
| FC20 - S2 | FC49 - I3m |
| FC21 - S3 | FC50 - KsU1 |
| FC22 - cos1 | FC51 - KsU2 |
| FC23 - cos2 | FC52 - KsU3 |
| FC24 - cos3 | FC53 - KsI1 |
| FC25 - sin | FC54 - KsI2 |
| FC26 - sin1 | FC55 - KsI3 |
| FC27 - sin2 | FC56 - Hour |
| FC28 - sin3 | FC57 - Min |
| FC29 - Z | FC58 - Sec |

## 1.4. Definition of Nominal Values

In order to improve the reading of measure values you should define nominal value of voltage, of current and of power (UL, IL, P, Q, S). These values may be given for each station. To do this you should place them in the initialization file in a section named as the logical channel name.

**EXAMPLE**

```
[ASMEN]
...
MPS1=MPS,1,COM2
MPS2=MPS,2,COM2
...
[MPS1]
UL = 660
IL = 100
...
[MPS2]
UL = 380
IL = 100
...
```

## 1.5. Driver Configuration

Nominal values may be defined in the section named MPS too. The values specified in this section are used as default ones for all controllers i.e. if the section of a given controller does not contain the nominal value, then it is taken from the MPS section.

If all controllers have the same nominal values, then the **[MPS]** section in the application INI file will be enough.

Diagnostic option:

***Sleep=YES/NO***

| | |
|---|---|
| Meaning | - yes causes a change of the manner of short time period timing. |
| Default value | - default value is equal to no. |

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