WRITING TO PARAMETER GROUPS 52 AND 53 ON THE ACS380, ACX580, AND ACS880 DRIVES VIA COMMUNICATIONS

Scope:

This document discusses how to write to parameter groups 52 and 53 via communications to set the data that gets sent between a drive and PLC.

Explanation:

There are some cases where someone would like to write directly to parameter groups 52 and 53 to change the data that gets passed between the drive and the PLC. To do this, we will need to know the format of the data to send to the drive register.

For example, let’s say we want to set parameter 52.01 to parameter 12.12 to be able to read the analog input scaled value back to the PLC. We first need to look at the structure of the word that will be sent to parameter 52.01. This applies regardless of the protocol used.

There are 3 different formats that can be selected in groups 52 and 53: 16 bit, 32 bit, and floating point (real). Each one is associated with a different hex number for the header of the word to send.

16 bit=3 hex
32 bit= C hex
Float= 10 hex

The next part of the message is the parameter group and parameter number. Each of these are a hex number. So for 12.12 it would be 0C0C.

So a value of 30C0C hex would be written to parameter number 5201 to set the parameter to 12.12 for 16 bit format. For 32-bit format it would be C0C0C, and for Float it would be 100C0C.

Documents or other reference material:

FENA-01/-11/-21 Ethernet adapter module user’s manual 3AUA0000093568
ACS880 Firmware Manual Primary Control Program 3AUA0000085967