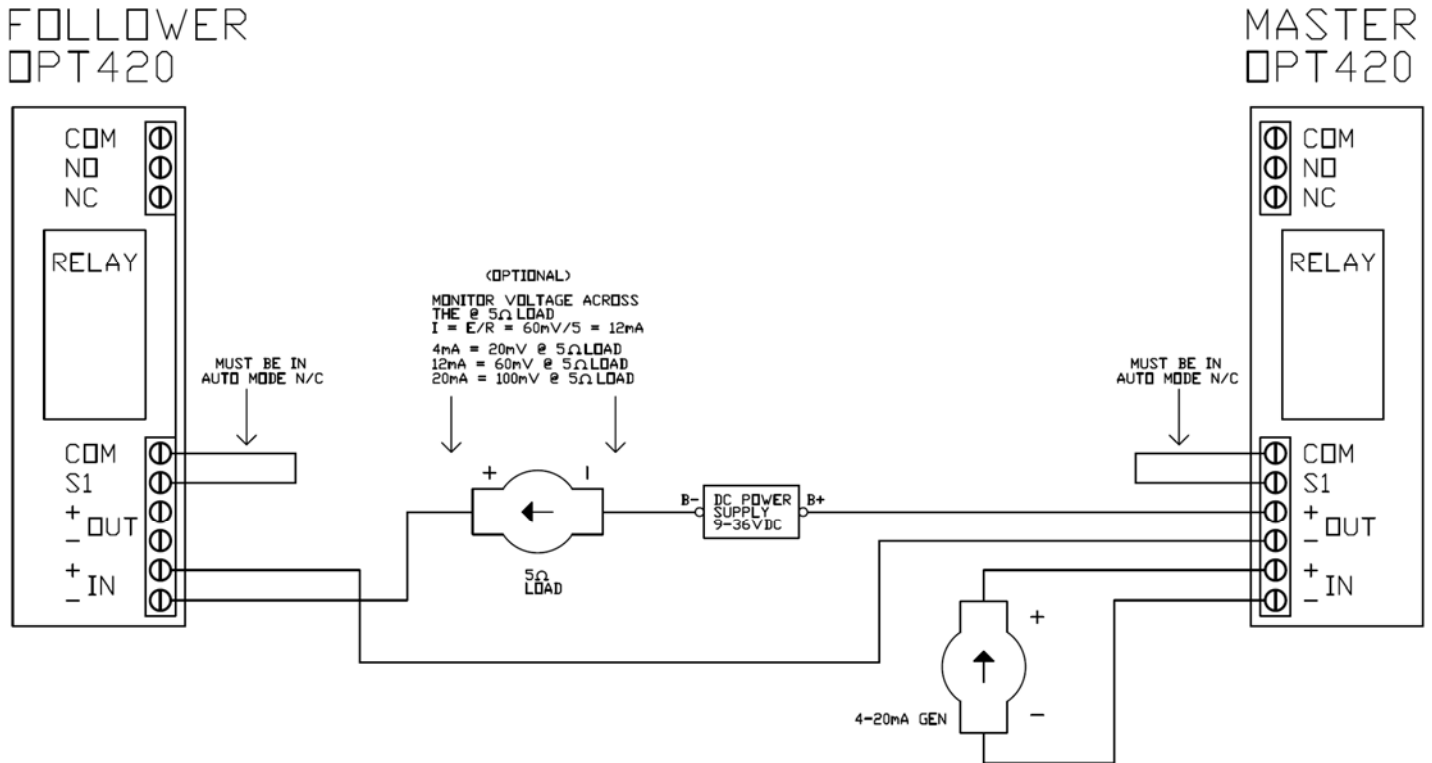


# Dart Controls Application Note

## ASP40 / MD40/50 Series 4-20mA Master Follower



The ASP40 / MD40 & MD50 with the -420 option can now be used in a unique way – instead of the Master signal being sent to the Follower S2 input as a pulse, we can use the 4-20mA Master actual speed output as the speed reference to the Follower 4-20mA input. Here’s a diagram of what we are able to do:



A PU Series encoder (or equivalent) is still required as the S1 input to both the Master and Follower MD/ASP device. As well, the user must supply a 9-36VDC loop power supply for the 4-20mA loop.

Where might this be needed? Applications where the environment includes a high level of electrical noise, or where the distance between the Master and Follower is over 300 feet (and signal loss is a concern). In addition, *the Master signal source does not have to be a Dart ASP/MD – it could be any 4-20mA signal related to Master speed being sent to a Follower device.*

### Programming

#### Follower

#### Master

|   |   |
|---|---|
| Item 10 = 3   | Item 12 = 2   |
| Item 13 = 3   | Item 13 = 3   |
| Item 21 = 1000 (100.0%)                             | Item 21 = 1000 (100.0%)                             |
| Item 35 = 1   | Item 2021 = 1000 (100.0%) (OPT420 card in Slot 200) |
| Item 120 = 1 (Slot 200)                             | Item 2041 = 1000 (100.0%) (OPT420 card in Slot 200) |
| Item 121 = 3 (Slot 200 – Follower)                  |   |
| Item 122 = 2 (Slot 200 – Follower)                  |   |
| Item 2021 = 1000 (100.0%) (OPT420 card in Slot 200) |   |
| Item 2041 = 1000 (100.0%) (OPT420 card in Slot 200) |   |