Here is the wiring for the Z dial.

|  |  |  |  |
| --- | --- | --- | --- |
| Encoder | Push switch | Ribbon cable | USB 6002 |
|  |  |  |  |
| A |  | 1 | AI0+ |
| 0V |  | 2 | AI0- |
| B |  | 3 | AI1+ |
| 0V |  | 4 | AI1- |
| 0V |  | 5 | DGND |
| VCC |  | 6 | 5V |
|  |  |  |  |
|  | Comm (middle) | 7 | AI2+ |
| 0V | NC | 8 | AI2- |
| VCC | NO |  |  |
|  |  |  |  |

Notes.

Wires, 2, 4, 5 & 8 are all connected to the 0V terminal on the encoder dial.

NC on the push button is also connected to 0V and NO to VCC on the encoder.

I am assuming you have a single-pole, double throw (SPDT) push button like the one below, with 3 terminals NC, NO, Comm. When it is un-pressed it connects AI2+ to 0V. When it is pressed it connects AI2+ to 5V.



