

I/O Memory Mapping

Input Data File

The first six words (0 to 5) of the input data file contain the analog RTD or resistance values of the inputs. Words 6 and 7 provide sensor/channel status feedback for use in your control program as shown below.

Word	Bit Position															
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	RTD/resistance Input Data Channel 0															
1	RTD/resistance Input Data Channel 1															
2	RTD/resistance Input Data Channel 2															
3	RTD/resistance Input Data Channel 3															
4	RTD/resistance Input Data Channel 4															
5	RTD/resistance Input Data Channel 5															
6	Not Used		OC5	OC4	OC3	OC2	OC1	OC0	Not Used		S5	S4	S3	S2	S1	S0
7	U0	U0	U1	U1	U2	U2	U3	U3	U4	U4	U5	U5	Not Used			

Word 6 and 7 status bits are defined as follows:

- **Sx** = General status bit for channels 0 through 5. This bit is set (1) when an error (over- or under-range, open-circuit, or input data not valid) exists for that channel. An input data not valid condition is determined by the user program. This condition occurs when the first analog-to-digital conversion is still in progress at power-up or after a new configuration has been sent to the module. Refer to the *RTD/resistance Input Module User Manual*, publication number 1769-UM005A-EN-P, for details.
- **OCx** = Open-circuit detection bit for channels 0 through 5. These bits are set (1) when either an open or shorted input for RTD inputs or an open input for resistance inputs is detected.

NOTE

Short-circuit detection for resistance inputs is not indicated because 0 is a valid number.

- **Ux** = Under-range flag bits for channels 0 through 5, using RTD inputs only. These bits can be used in the control program for error detection. There is no under-range error for a direct resistance input, because 0 is a valid number.
- **Ox** = Over-range flag bits for channels 0 through 5, using either RTD or resistance inputs. These bits can be used in the control program for error detection.