



Interfacing the EasyConnect GPP-16 Module to the NI-9205 and NI-9220 Digitizers

The EasyConnect GPP-16 comes ready to interface with the NI-9205 and the NI-9220 cRIO digitizers. A 37-Pin DSub connector is used to carry out all 16 signals coming from the sensors. The pin assignment of this connector was chosen to match the input configuration of the NI-9220, as well as the input configuration of the NI-9205 when set in differential mode. The figure on the right shows the order of the signals as they come out of the EasyConnect DSub connector.

The choice of digitizer depends on the specs of the application. The NI-9205 works in a multiplexed manner with an aggregated sampling rate of 250kS/s., while the NI-9220 samples each channel simultaneously at up to 100kS/s/ch. Verivolt recommends using a National Instruments shielded DSub cable (SH37F-37M) to bring the signals out of the EasyConnect module into the NI digitizer.

Refer to the table below when assigning each RJ45 connector to a digitizer channel.

RJ45	NI-9220	NI-9205	RJ45	NI-9220	NI-9205
0	AI0	AI 0-8	8	AI8	AI 16-24
1	AI1	AI 1-9	9	AI9	AI 17-25
2	AI2	AI 2-10	10	AI10	AI 18-26
3	AI3	AI 3-11	11	AI11	AI 19-27
4	AI4	AI 4-12	12	AI12	AI 20-28
5	AI5	AI 5-13	13	AI13	AI 21-29
6	AI6	AI 6-14	14	AI14	AI 22-30
7	AI7	AI 7-15	15	AI15	AI 23-31

