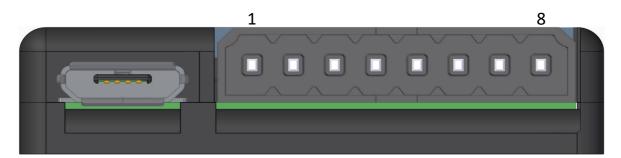
8-way pluggable terminal pinout:

Mating part: Phoenix Contact - PTSM 0,5 / 8-P-2,5. Part number 1778890.

View looking into connector end-on, with board sitting on its base. Pin 1 is on left.



Pin	Name	Information
1	D+	RS-485 data line +. Signal level 3.3 V, default baud rate 500 kbps (user editable).
2	D-	RS-485 data line Signal level 3.3 V, default baud rate 500 kbps (user editable).
3	V+	System power supply. Min. 5.5 V, nom. 6.0 V, max. 7.0 V. Must be well regulated DC only. Max. current draw 1.2 A. In-line 2 A fuse recommended. Not reverse polarity protected.
4	GND	System ground.
5	sGND	Analog signal ground reference (output). To be used with analog voltage outputs as reference.
6	V_lm	Analog output voltage representing the motor current. Range 0 5 V.
7	V_Phr	Analog output voltage from photoreflector. Range 0 5 V. Low means object present.
8	V_RPM	Analog output voltage representing the motor shaft RPM. Range 0 5 V.

Connection type is push-in spring clamp. Use bootlace ferrules on wire ends to allow tool-less insertion. Nominal conductor cross-sectional area is 0.5 mm².

Do not hot-plug.

Nominal transfer functions for analog outputs:

$$\begin{split} I_{\scriptscriptstyle m} &= A \cdot \left(V_{\scriptscriptstyle I_{\scriptscriptstyle m}} - V_{\scriptscriptstyle ref} \right) + I_{\scriptscriptstyle offset} \\ RPM &= B \cdot \left(V_{\scriptscriptstyle RPM} - V_{\scriptscriptstyle ref} \right) \end{split}$$

$$A = 2.056$$

$$B = 1000$$

$$V_{ref} = 2.5$$

Nominal analog output filter parameters:

All analog outputs filtered with active 4th order Butterworth low-pass filter.

Corner frequency (-3dB) 451 Hz Group delay 0.8 ms

Roll-off 80 dB / decade

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