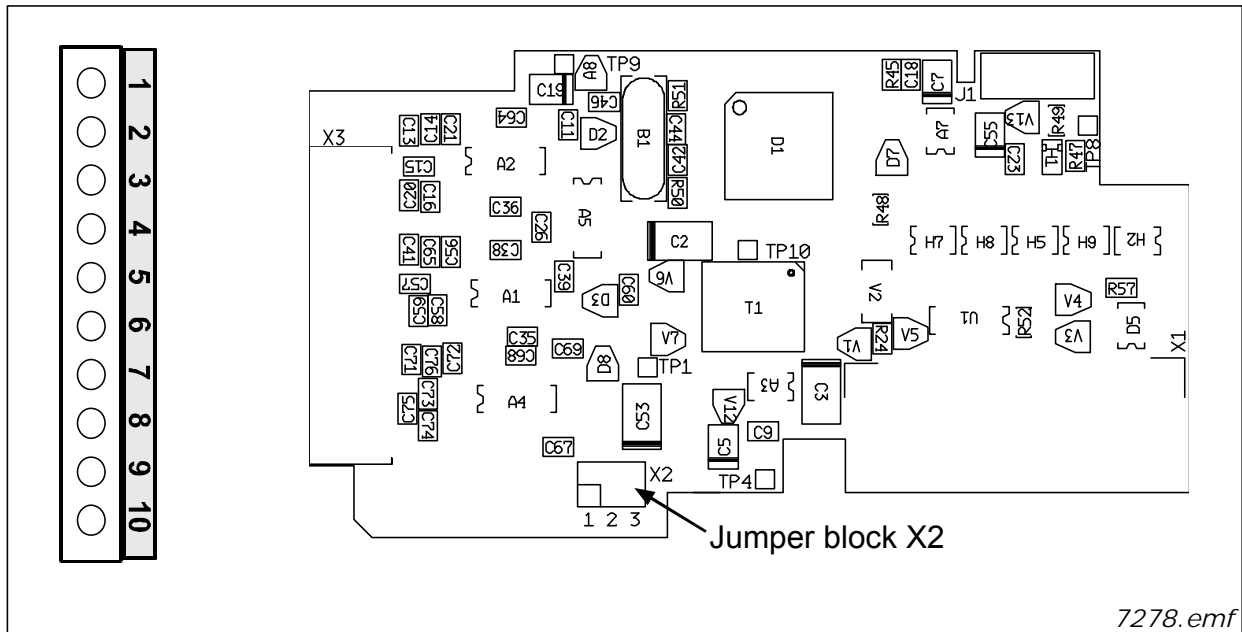


3.2.5 OPTB8



57 Galaxy Blvd., Units 1 & 2, Toronto, ON M9W 5P1
 TEL: (416) 231-6767
 www.drivecentre.ca



7278.emf

Description: Temperature measuring board with three Pt-100 sensor (3-wire) inputs. The measurable temperature range is -30...200 C° on Pt-100 input. Both 3-wire and 2-wire elements can be used.

Allowed slots: B, C, D, E

Type ID: 16952

Terminals: One terminal block; Screw terminals (M2.6); No coding

Jumpers: X2

Board parameters: None

I/O terminals on OPTB8

Table 28. OPTB8 I/O terminals

Terminal		Parameter reference Keypad/NCDrive	Technical information
1	R1 +	AnIN:X.1	PT100 Input, -30 ... 200 °C, one sensor. Sensor current 10 mA.
2	R _m 1		
3	R1 -		
4	R2 +	AnIN:X.2	PT100 Input, -30 ... 200 °C, one sensor. Sensor current 10 mA.
5	R _m 2		
6	R2-		
7	R3 +	AnIN:X.3	PT100 Input, -30 ... 200 °C 1 - 3 sensors (see X2 jumper selections). Accuracy ≤ 1°C. Sensor current 10 mA.
8	R _m 3		
9	R3 -		

Table 28. OPTB8 I/O terminals

Terminal		Parameter reference Keypad/NCDrive	Technical information
10	NC		Not connected

OPTB8 accuracy

The following table represents the results of accuracy measurements in laboratory environment. In the tests we used Draga JAMAK cable. The testing covered different sensor setups.

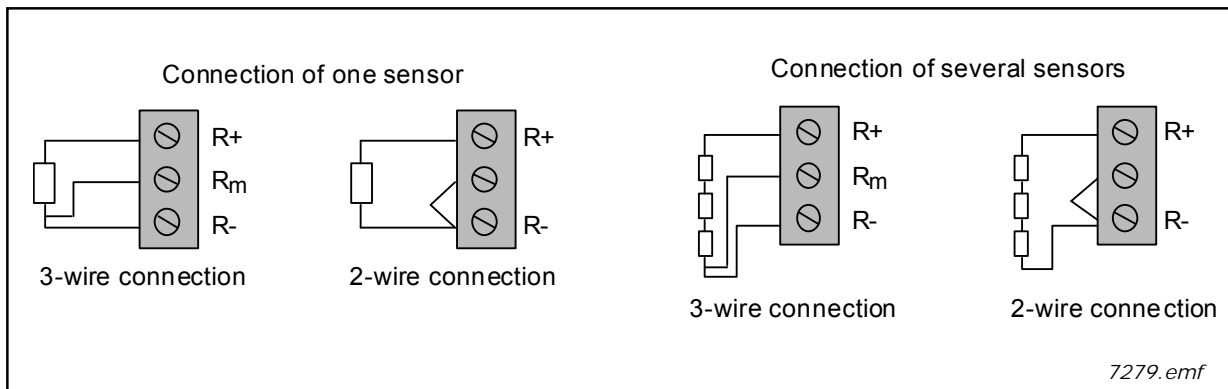
Table 29. PT100 accuracy for OPTB8

Cable length (m)	3-wire	2-wire	Accuracy (°C)
300	x		-20 < x < 8
150	x		-13 < x < 3
50	x		-8 < x < 2
50		x	-10 < x < 10

NOTE: Because of accuracy reasons OPTBH is recommended for newer installations. Please note that using of OPTBH requires support from NX application.

Connection of PT100 sensors

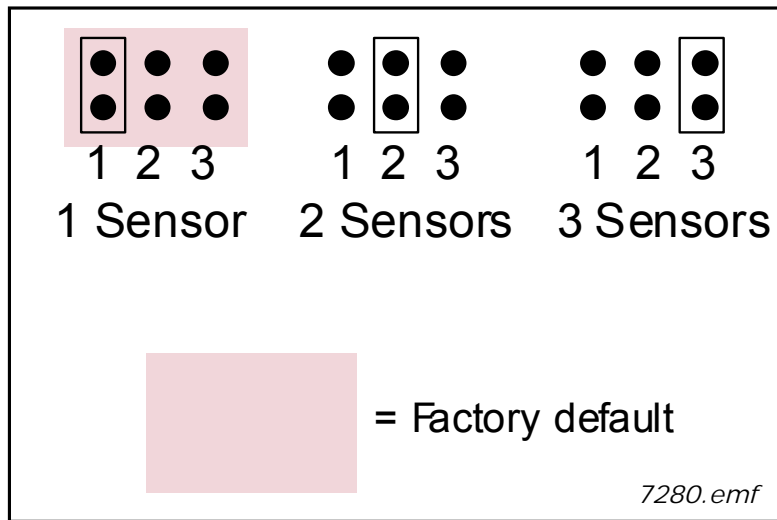
One PT100-sensor can be connected to the first two inputs (terminals 1 to 3 and 4 to 6) and up to three sensors to the third input (terminals 7 to 9). The sensors must be connected in series with a two- or three-wire connection. See Chapter Jumper selections below.



NOTE:

- This expander board can be placed into four different slots on the control board. Therefore, the 'X' given in the Parameter reference must be replaced by the slot letter (B, C, D, or E) depending on the slot which the expander board is plugged into. See chapter 1.7.
- Insulation level 4kV/sqrt(2) (DIN VDE 01 10-1). 2kV in sensor and 2kV in option board.

Jumper selections



Up to three PT100 sensors can be connected to the third PT100 input. You can select the number of sensors in use with jumper block X2: