

# Heavy Duty Pressure Transducers

PX2 Series, 1 bar to 70 bar | 100 kPa to 7 MPa | 15 psi to 1000 psi

**Table 2. Electrical Specifications**

Characteristic	Ratiometric Output				Current Output	Regulated Output				
	Output Transfer Function Order Code <sup>1</sup>									
	AA	AB	AC	AD	CH	BC	BD	BE	BG	
Output transfer function <sup>1</sup> :										
null output value	10% of V <sub>s</sub>	5% of V <sub>s</sub>	10% of V <sub>s</sub>	5% of V <sub>s</sub>	4 mA	1 V	0.25 V	0.5 V	1 V	
full scale output value	90% of V <sub>s</sub>	95% of V <sub>s</sub>	90% of V <sub>s</sub>	95% of V <sub>s</sub>	4 mA	6 V	10.25 V	4.5 V	5 V	
full scale span (FSS)	80% of V <sub>s</sub>	90% of V <sub>s</sub>	80% of V <sub>s</sub>	90% of V <sub>s</sub>	16 mA	5 V	10 V	4 V	4 V	
operating supply voltage, min.(V <sub>s</sub> ) <sup>2</sup>	4.75 V	4.5 V	3.135 V	3.135 V	8 V	9 V	13 V	8 V	8 V	
operating supply voltage, typ. (V <sub>s</sub> ) <sup>2</sup>	5 V	5 V	3.3 V	3.3 V	—	—	—	—	—	
operating supply voltage, max. (V <sub>s</sub> ) <sup>2</sup>	5.25 V	5.5 V	3.465 V	3.465 V	30 V <sup>4</sup>	30 V <sup>3</sup>	30 V <sup>3</sup>	30 V <sup>3</sup>	30 V <sup>3</sup>	
Supply current (typ.)	5 mA		4 mA		—	5.5 mA				
Output load (pull up or down):										
minimum					—	2 kOhm				
maximum					(V <sub>s</sub> - 8) x 50 Ohm <sup>4</sup>	—				
Absolute voltage ratings <sup>5</sup> :										
minimum <sup>6</sup>					-16 V	-16 V				
maximum <sup>6</sup>					16 V	30 V				
maximum applied to output pin (short circuit protection) <sup>7</sup>					V <sub>s</sub>	12 V				
EMC rating <sup>8</sup> :										
CE compliance:										
electrostatic discharge	±4 kV contact, ±8 kV air per IEC 61000-4-2									
radiated immunity	10 V/m (80 MHz to 1000 MHz) per IEC 61000-4-3									
fast transient burst	±1 kV per IEC61000-4-4									
immunity to conducted disturbances	3 V per IEC61000-4-6									
radiated emissions	40 dB 30 MHz to 230 MHz; 47 dB 230 MHz to 1000 MHz per CISPR 11									
ISO 11452-2 radiated immunity	100 V/m 200 MHz to 2 GHz						20 V/m 200 MHz to 2 GHz			

<sup>1</sup> Output transfer function options are shown in the Nomenclature and Order Guide. (See Figure 4.)

<sup>2</sup> Transducer will not produce valid output when supply voltage is outside of operating range.

<sup>3</sup> Applies at 25°C. See Figure 2 for Regulated Output Supply Voltage.

<sup>4</sup> Applies at 25°C. See Figure 3 for Current Output Supply Voltage.

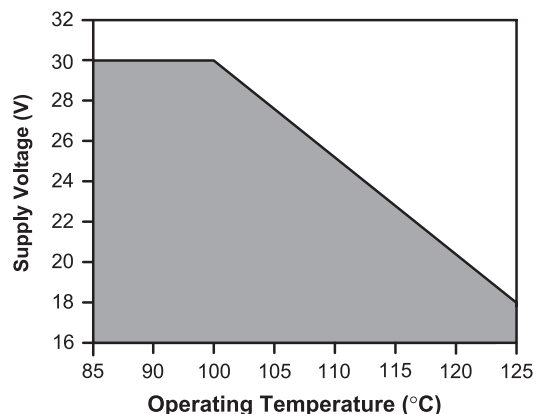
<sup>5</sup> Absolute maximum ratings are the extreme limits the device can withstand without damage to the product. Voltages above these ratings may cause permanent damage. Exposure to absolute maximum conditions for extended periods may degrade device reliability.

<sup>6</sup> Absolute voltage applies to potential across power and ground terminals.

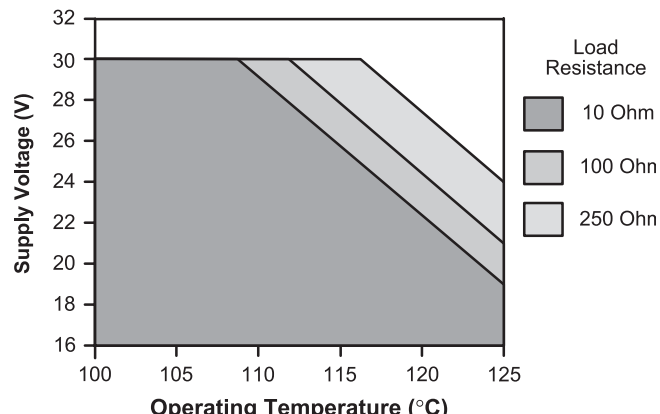
<sup>7</sup> Short circuit protection between output pin and ground, and output pin and supply pin.

<sup>8</sup> All EMC ratings verified with the Metri-Pack 150 electrical connector type.

**Figure 2. Regulated Output Supply Voltage**



**Figure 3. Current Output Supply Voltage**



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**Table 3. Pressure Ratings**

bar			kPa			MPa			psi		
Operating Pressure	Over-pressure	Burst Pressure	Operating Pressure	Over-pressure	Burst Pressure	Operating Pressure	Over-pressure	Burst Pressure	Operating Pressure	Over-pressure	Burst Pressure
1	5	8	100	500	800	1	3.1	5.1	15	70	115
1.6	5	8	160	1000	1700	1.6	5.2	8.6	30	150	250
2	10	17	250	1000	1700	2.5	6.9	10.3	50	250	400
2.5	10	17	400	1700	2700	4	6.9	10.3	100	450	750
4	17	27	600	3100	5100	4.6	6.9	10.3	150	450	750
6	31	51	—	—	—	6	13.8	20.6	200	750	1250
8	31	51	—	—	—	7	13.8	20.6	250	750	1250
10	31	51	—	—	—	—	—	—	300	1000	1500
16	52	86	—	—	—	—	—	—	500	1000	1500
25	69	103	—	—	—	—	—	—	600	1000	1500
34	69	103	—	—	—	—	—	—	667	1000	1500
40	69	103	—	—	—	—	—	—	750	1500	2250
46	69	103	—	—	—	—	—	—	800	1500	2250
60	138	206	—	—	—	—	—	—	850	2000	3000
70	138	206	—	—	—	—	—	—	1000	2000	3000

**Table 4. Pressure Reference Types**

Pressure Reference	Description
Absolute	Output is proportional to the difference between applied pressure and a built-in fixed reference to vacuum (zero pressure), where the minimum operating pressure is set to absolute zero pressure (perfect vacuum).
Sealed gage <sup>1</sup>	Output is proportional to the difference between applied pressure and a built-in fixed reference to 1 atmA, where the minimum operating pressure is set to 14.7 psiA (1 atmA).
Vented gage <sup>2</sup>	Sensor measures pressure relative to ambient pressure. Output is proportional to the difference between applied pressure and atmospheric (ambient) pressure, where the minimum operating pressure is set to atmospheric pressure.

<sup>1</sup> Sealed gage option only available in pressure ranges at or above 100 psi.

<sup>2</sup> Vented gage option only available in pressure ranges between 100 psi and 667 psi.