

# Piezoelectric Drivers

NDR6881 Dual Channel Dynamic Driver

NDR6881-20A Dual Channel Dynamic Driver

## Features

- High current
- High power
- Power recovering
- Wide frequency range
- Two separate channels
- Galvanic separation of output from other circuitry



## Description

The NDR6881 is one of the high current variations of CTS' piezoelectric drivers. It is a standalone laboratory desktop unit focused on driving or positioning piezoelectric actuators/stacks of all types. The NDR6881 is a dual channel driving unit used for static and dynamic supply of large piezoelectric actuators having capacity up to 200 $\mu$ F. The piezoelectric driver is mainly used for testing and most commonly pulse driving of stacks. The NDR6881 provides a maximal current peak of up to 10 Amps, but is also offered as the high power NDR6881-20A with a maximal current peak value up to 20 Amps.

The device is not designed for use with loads having high energetic losses. The device also cannot be used with piezoelectric actuators having positive energetic balance in long term meaning (energy harvesting).

## Standard Product or Custom Solution

This document contains information about the piezoelectric driver NDR6881. All the CTS multilayer products can be custom designed to match specific requirements – find more information on [www.ctscorp.com](http://www.ctscorp.com).

## Specifications

Parameters	Value <sup>1</sup>	Unit	Remark
<b>NDR6881 &amp; NDR6881-20A parameters</b>			
Number of Channels	2	-	
Power Supply	230 V / 50 Hz or 115 V / 60 Hz	V	Two versions of the device
Power	Max. 110	W	
Output Voltage Amplitude and Load Current Amplitude	0 ÷ 150	V	
	7	A	
Peak Current NDR6881	10	A	Do not exceed maximal power, or the thermal fuse will stop the driver
Peak Current NDR6881-20A	20		
Power Loss From The Actuator Covered By The Driver	80	W	Per all device
Frequency Range		Hz	DC coupled, galvanically isolated
Low Frequency Limit	0		
High Frequency Limit – 3 dB	6	kHz	Full stroke Small signals
	20		
Frequency Filter	100	Hz	Switchable
Output Voltage Linearity	5	%	
Output Noise	30 <sup>2</sup>	mV	RMS 50 µF load
Maximal Capacitance	200	µF	
Input Voltage Range	0 ÷ 10 or 10 ÷ 0	V	Selectable input phase
Input Impedance	10	kΩ	
Input Connection	BNC	-	
Output Connection	+/- terminals and 4 way Amphenol type 62IP	-	
Maximum Voltage Between Input And Output And Maximum Voltage Between Channel Outputs	500	V	

<sup>1</sup> Tolerance of 10 % is applied on all values (if applicable)

<sup>2</sup> Value is guaranteed from 10 to 90 % of dynamic range. Outside this range, the residual noise or distortion at small capacitive loads could be higher.

**Environmental Parameters**

Parameters	Value	Unit	Remark
Temperature Range	+5 ÷ +45	°C	

**Mechanical Parameters**

Parameters	Value	Unit	Remark
Dimensions <sup>1</sup>	Width 382, height 270, depth 160	mm	
Mass	7.9	kg	

<sup>1</sup> Dimensions are without purple rubber feet (foot overlap is about 5.5mm) and without connector(s) overlap.

Piezoelectric Drivers Product Families

---



NDR6110 Single Channel Dynamic Driver  
NDR6110 OEM Single Channel Dynamic Board

---



NDR6210 Single Channel Dynamic Driver  
NDR6220 Single Channel Dynamic Driver

NDR6210DC Single Channel Dynamic Driver  
NDR6220DC Single Channel Dynamic Driver

---



NDR6880 Single Channel Dynamic Driver  
NDR6880-20A Single Channel Dynamic Driver

---



NDR6881 Dual Channel Dynamic Driver  
NDR6881-20A Dual Channel Dynamic Driver

---

Learn more about the different piezoelectric drivers on [www.ctscorp.com](http://www.ctscorp.com).