

Attention:

- The Operation of this device has to be done only by experienced persons. Obligatory supervision!
- Take care that the device doesn't fall down. If that happens it has to be checked and repaired only by authorized personnel!
- If unforeseen problems occur during installation or operation disconnect the device quickly from power supply and bring it to speciality retailer. If the advice doesn't work properly the hazard risk increases. Take care that the device stands on a stabile basis.
- Take care that nothing stands on the power supply cable. Injured cables can cause fire or electric shock.
- Shield the device from contact with water.
- Before changing the fuse disconnect the advice! Only use the stated fuses.
- Inside the device are not any units that have to be maintained by the user.
- The device has to be repaired by authorized personnel only!
- Don't point any bin filled with fluids on the cover of the device.
- Don't put anything through in the ventilation slots and never try to touch parts from inside the device for any reason!
- Don't use cables longer then 3m.
- Keep to the regulations: EN61010-1:1995/ EN 60065:1995/ EN50081-1/ EN50081-2/ EN 61000-3-2

Take care that the device does not fall. In the event that this does occur, have the device examined or repaired by authorized service personnel.

In the event that unforeseen difficulties arise during operation, switch off the device and contact the dealer.

Do not subject the device to dripping or sprayed water.

Use only fuses of the type and current rating indicated.

The device contains no components requiring maintenance on the part of the user.

This device may only be operated by qualified personnel or by persons they instruct in its use.

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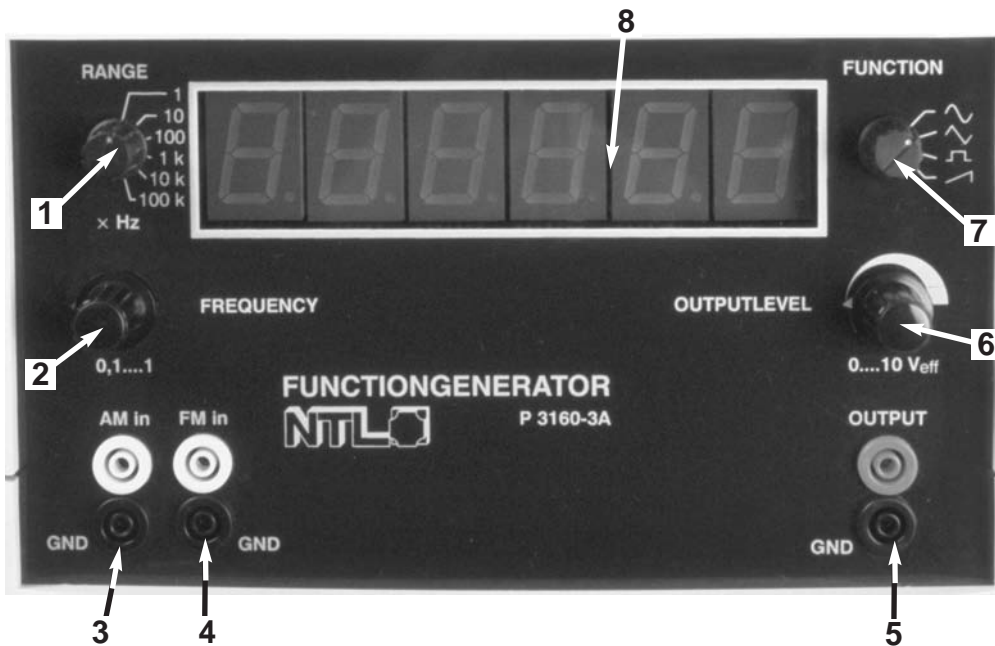
NTLO

P3160-3A
Function generator
with digital display



Exercise:

The function generator with digital display is very suitable for a large number of experiments regarding acoustics, theory of oscillations and electricity. The device is equipped with a high resilient (2 Aeff) voltage source (up to 10Veff) for different types of signals. Different types of voltages (sinus, triangle, rectangle and saw tooth voltage) with a wide range of frequency (0,1Hz ... 100 kHz) can be chosen with a step switch. The chosen frequency is displayed on the LED-7-segment digital display on the front side of the device. The elected output signals can be amplitude or frequency-modulated by external voltage signals.



- 1 step switch for election of frequency range (rough setting)
- 2 adjusting knob for step less election of frequency (fine adjustment)
- 3 4 mm safety connection for input voltage for amplitude modulation
Input voltage max. 30Veff (1 connection grounded)
- 4 4mm safety connection for input voltage for frequency modulation
Input voltage max. 30Veff (1 connection grounded)
- 5 4mm safety connection, voltage output (1 connection grounded)
- 6 adjusting knob for step less selection of output voltage
- 7 step switch to select the type of signal (sinus, triangle, rectangle and saw tooth voltage)
- 8 LED-7-segment digital display

Back side:

- Power switch in low heat device plug
Wire fuse in safety holder T250mA
- Trigger switch to put the speaker on and off
- 5-pole DIN-connection to connect the light gates P1320-3A or the light gate with digital display P1321-3A

Operation:

The function generator is connected to the a.c. network via a power cable. The output sockets are connected with a device for the experiments (like acoustic radiator DW340-1S; loudspeaker DW341-1L; motor for oscillation tests P1825-1A or an electric circuit with frequency-dependent characteristics) via the connecting cable. Experiments in the pulse technique can be executed with the stable square wave voltage. The square wave voltage can be also used as external trigger signal for an oscilloscope. The LED-7-segment digital display on the front of the device lights up when the device was put on. In the first step the wave shape has to be elected by using the step switch. Then the rough setting for the frequency has to be done with the step switch. The fine adjustment of the frequency can be made with the adjusting knob. With the adjusting knob no. 06 the amplitude of the output voltage can be elected. The 4mm safety connections give the possibility to modulate the amplitude and the frequency of the output signal.

Attention: The operation of this device has to be done by qualified or instructed persons only!

Technical data:

Frequency display:	LED-7-segment digital display
Output signals:	sinus, triangle, rectangle and saw tooth voltage, can be elected with the step switch
Frequency range:	0,1Hz ... 100 kHz, can be selected in 6 decades with overlapped fine adjustment
Output voltage:	0 ... 10 Veff, step less adjustable, max. 2 Aeff on the 4mm safety connections Permanently short circuit proof and safety against counter voltage Amplitude and frequency can be modulated (separated inputs with 4mm connections)
Fuse:	wire fuse in safety holder T250mA
Connection voltage:	230V / 50 ... 60 Hz
Dimensions:	260 x 150 x 210mm
Cover:	plastic housing with 2 moulded recess
Weight:	ca. 3,5kg