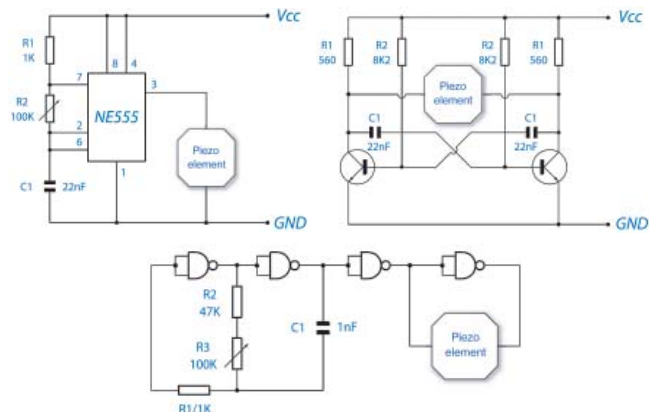


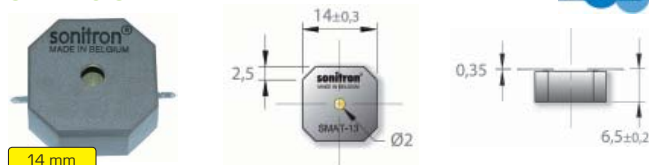
## Piezo Buzzers without Driver

### SMAT Series

The SMAT transducers are specifically developed to meet various requirements, such as loud sound pressure level, mounting methods, connection possibilities and dimensions. The transducers do not have a built-in oscillator. The drive frequency must be generated with electronics outside the transducers. Our transducers produce a highly reliable tone signal, giving either an extremely clear and penetrating tone or a soft sound for non-aggressive signals.



#### SMAT-13-S



Technical Parameters		SMAT-13-S
Frequency Range		800 - 5000 Hz
Operating Voltage		0 - 30 VACpp
Max. SPL at 10Vpp		82 dB/3 kHz/30cm
Capacitance		7,8 nF
Operating Temperature		-20°C to +70°C

Part No.	Ord.No.
S SMAT-13-S	64094

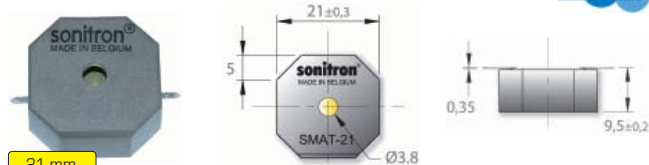
#### SMAT-17-S



Technical Parameters		SMAT-17-S
Frequency Range		800 - 5000 Hz
Operating Voltage		0 - 30 VACpp
Max. SPL at 10Vpp		84 dB/3,5 kHz/30cm
Capacitance		17,5 nF
Operating Temperature		-20°C to +70°C

Part No.	Ord.No.
S SMAT-17-S	64095

#### SMAT-21-S



Technical Parameters		SMAT-21-S
Frequency Range		600 - 5000 Hz
Operating Voltage		0 - 30 VACpp
Max. SPL at 10Vpp		90 dB/3,8 kHz/30cm
Capacitance		12,4 nF
Operating Temperature		-20°C to +70°C

Part No.	Ord.No.
S SMAT-21-S	64096

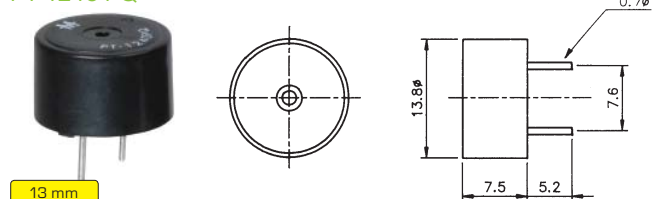
#### SMAT-24-S



Technical Parameters		SMAT-24-S
Frequency Range		400 - 5000 Hz
Operating Voltage		0 - 30 VACpp
Max. SPL at 10Vpp		86 dB/3kHz/30cm
Capacitance		18,6 nF
Operating Temperature		-20°C to +70°C

Part No.	Ord.No.
S SMAT-24-S	64097

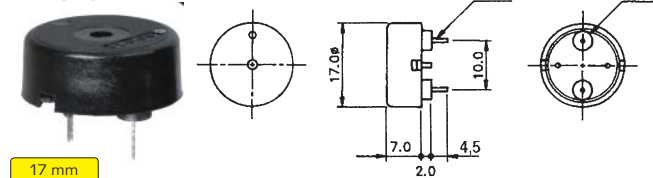
#### PT 1240 PQ



Technical Parameters		PT 1240 PQ
Resonant Frequency		4,1 kHz
Max. Operating Voltage		20 VDC
SPL at 5V		80 dB/10cm
Current Consumption		2 mA
Capacitance		17 000 pF
Operating Temperature		-20°C to +70°C

Part No.	Ord.No.
S PT 1240 PQ	7742

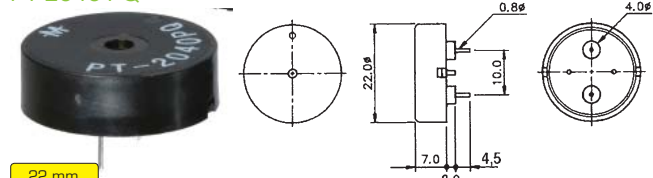
#### PT 1540 P



Technical Parameters		PT 1540 P
Resonant Frequency		4,0 kHz
Max. Operating Voltage		25 VDC
SPL at 5V		80 dB/10cm
Current Consumption		1,5 mA
Capacitance		14 000 pF
Operating Temperature		-20°C to +100°C

Part No.	Ord.No.
S PT 1540 P	4658

#### PT 2040 PQ



Technical Parameters		PT 2040 PQ
Resonant Frequency		4,0 kHz
Max. Operating Voltage		30 VDC
SPL at 5V		90 dB/10cm
Current Consumption		1,5 mA
Capacitance		20 000 pF
Operating Temperature		-20°C to +85°C

Part No.	Ord.No.
S PT 2040 PQ	5181