



## Introduction

The DPA d:screet™ Miniature Microphones are designed for use with wired or wireless systems in theater, film, television, conferences and instrument close-miking applications.

To ensure optimal performance of your d:screet™ Miniature Microphone, please follow the simple care and maintenance instructions below. Our d:screet Miniature Microphones are designed to be resistant to humidity and moisture. Highly resistant materials like gold plated stainless steel, and features like the double-vent protection system, ensures that you avoid damage

by fluids. Keep your d:screet Miniature Mics away from water and cleaning fluids, and keep the microphone element dry at all times.

## Cleaning guide

The cable and protection grid are the only parts that may be cleaned. Do not use any kind of cleaning fluid other than demineralized water. Avoid all kinds of spray or fluids containing chemical components to remove static electricity on or close to the microphone as this could cause damage to the electret layer.

When mounting a d:screet Miniature Microphone directly on or close to the skin of a performer, care should be taken to avoid sweat from running into the microphone. If the microphone has been exposed to sweat, it must be rinsed out in demineralized water and left to dry out to recover its original specifications. Drying out the microphone between exposures to humidity will also help to extend its lifetime. If the microphone gets filled up with water it will not be damaged, but possibly turn deaf while the water is captured inside the microphone, behind the protection grid. Remove the water by shaking the microphone or drying it with a piece of lint free cloth.

## Cleaning the microphone grid

During use in environments where the microphone is exposed to makeup or dusty materials, the grid may get clogged up. Remove the microphone grid from the microphone element (not applicable to SC4071, SCO71-H and 4080) and clean the grid using a soft cloth and demineralized water only. Make sure the grid is dry before re-mounting it on the microphone housing. For SC4071, SCO71-H and 4080 (which do not feature removable grids) cleaning the grid is done using a soft cloth and demineralized water.

## Cleaning the microphone cable

Residue from tape, glue, or makeup on the cable must be removed after use. Leaving these substances on the cable over longer periods of time may etch into the cable jacket and will make the cable more susceptible to breaks. The cable can easily be cleaned using organic oil (e.g. olive oil) or lukewarm, demineralized water. Do not bend the cable or rub it harshly since this may stress the inner cores of the cable and cause them to break over time.

## Microphone grids

The d:screet Miniature Microphones (SC4060/61/62/63 and SCO60/61-H) are supplied with two different grids for acoustic equalization, depending on the placement on the performer; a soft boost grid (pre-fitted) giving a 3 dB soft boost at 8-20 kHz. Alternatively, the high boost grid for chest mounting gives approximately 10 dB boost at 12 kHz. Without any grid mounted, the microphone is linear, but unprotected against dirt.

The d:screet Miniature Microphones with presence boost (SC4071 and SCO71-H) and the 4080 have a fixed presence boost grid. These types are pre-equalized to provide optimal speech intelligibility when using chest placement.

## Mounting

Several mounting accessories are specially designed to mount, place or conceal the d:screet Miniature Microphones. Refer to [www.dpamicrophones.com/dscreet](http://www.dpamicrophones.com/dscreet) for an up-to-date selection and overview.

## d:screet™ 4080

Special for the 4080 is that it is delivered with a pre-mounted pop-filter in a holder with an integrated shock mount, fixed on the DPA clip (fig. 1). The 4080 is designed to be always used in this setup. When mounting the holder on to the clip, a small loop of 1.5 cm (0,6 in) (fig. 2) should be left between the microphone and the holder. Press the cable gently into the cable trail and secure the cable with the cable clamp (fig. 3). To ensure the optimal sound of the 4080, the best position on the performer's body is 20 - 25 cm

(8 – 10 in) from the speaker's mouth (fig. 4). With its innovative mounting solution it can easily be turned in all directions, upwards and sideways, to get the best sound. Furthermore, it ensures that the 4080 fits both left and right buttoned shirts.

## Microphone element

The diaphragm in the microphone element is the most sensitive part of the unit, and must be left untouched to preserve its original characteristics. Do not spray any substances such as hair spray directly into the microphone and avoid getting makeup or paint on the microphone element and housing.

## Correct treatment of the microphone cable

The cable is usually longer than required for its actual purpose. Make sure that superfluous cable is wound up in soft loops (preferably 6 – 8 cm (2.4 – 3 in) in diameter). Avoid kinks in the cable. Handling noise from the cable can be reduced significantly by making a loose cable loop, as close to the microphone element as possible.

## Correct use of adapters and MicroDot connectors

To provide users with safe and compact mounting of connectors, all our d:screet Miniature Microphones are fitted with the

MicroDot connector. A broad range of adapters is offered as optional accessories for most wireless systems for professional use. Never attempt to loosen or tighten the connector by the cable or its strain relief. Some wireless systems require the use of electronic components inside the adapter to optimize the signal level, the DC-offset filtering, and powering of the built-in microphone preamplifier.

Always use the adapters from DPA Microphones with the wireless systems to ensure the correct electronic circuit. Do not use non-standard adapters or connectors as you might damage the microphone preamplifier.

Learn more at [www.dpamicrophones.com](http://www.dpamicrophones.com)



Fig. 1. 4080 Miniature Cardioid Microphone, Lavalier



Fig. 4. Place 4080 20-25 cm (8 – 10 in) from mouth



Fig. 7. SCO60-H Heavy Duty in SCM0001 Miniature Clip



Fig. 2. Loop between holder and clip on 4080



Fig. 5. 2 x SC4071 in SCM0008 Miniature Clip



Fig. 8. SC4060 in SCM0004 Miniature Clip, Small



Fig. 3. Securing the cable with the cable clamp on 4080



Fig. 6. SC4060 in SCM0017 Miniature Mic Holder

# Specifications

SC4060, SC4061, SC4062, SC4063, SC4071  
4080, SCO60-H, SCO61-H, SCO71-H

## Directional characteristics

SC4060/61/62/63/71, SCO60-H/61-H/71-H: Omnidirectional  
4080: Cardioid

## Principle of operation

SC4060/61/62/63/71, SCO60-H/61-H/71-H: Pressure  
4080: Pressure Gradient

## Cartridge type

Pre-polarized condenser element with vertical diaphragm

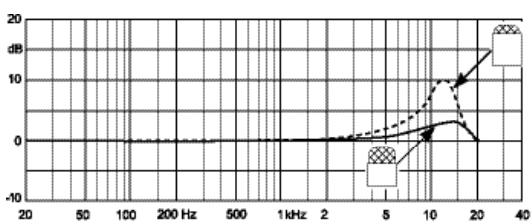
## Frequency range, ± 2 dB

SC4060/61/62/63, SCO60-H/61-H:  
Soft boost grid: 20 Hz- 20 kHz, 3 dB soft boost at 8 – 20 kHz  
High boost grid: 20 Hz- 20 kHz, 10 dB boost at 12 kHz  
SC4071, SCO71-H:  
100 Hz – 15 kHz with typ. 5 dB soft boost at 4-6 kHz  
4080:  
250 Hz – 17 kHz with typ. 4 dB soft boost at 4 - 6 kHz (-5 dB at 100 Hz)

## Sensitivity, nominal, ± 3 dB at 1 kHz

SC4060, SCO60-H, 4080: 20 mV/Pa; -34 dB re. 1 V/Pa  
SC4061/63/71, SCO61-H/71-H: 6 mV/Pa; -44.5 dB re. 1 V/Pa  
SC4062: 1 mV/Pa; -60 dB re. 1 V/Pa

## Frequency Response



SC4060/61/62/63, SCO60-H/61-H

## Equivalent noise level, A-weighted

SC4060, SCO60-H, 4080: Typ. 23 dB(A) re. 20 µPa (max. 26 dB(A))  
SC4061/63/71, SCO61-H/71-H: Typ. 26 dB(A) re. 20 µPa (max. 28 dB(A))  
SC4062: Typ. 33 dB(A) re. 20 µPa (max. 37 dB(A))

## S/N ratio (A-weighted) re. 1 kHz at 1 Pa (94 dB SPL)

SC4060, SCO60-H, 4080: 71 dB  
SC4061/63/71, SCO61-H/71-H: 68 dB  
SC4062: 61 dB

## Total Harmonic Distortion (THD)

<1% THD up to 123 dB SPL peak  
<1% THD up to 120 dB SPL RMS sine

## Dynamic Range

SC4060, SCO60-H, 4080: Typ. 100 dB  
SC4061/63/71, SCO61-H/71-H: Typ. 97 dB  
SC4062: Typ. 90 dB

## Max. SPL peak before clipping

SC4060, SCO60-H, 4080: 134 dB  
SC4061/71, SCO61-H/71-H: 144 dB  
SC4062: 154 dB  
SC4063: 138 dB

## Output impedance

30 – 40 Ω, depending on current draw

## Cable drive capability

300 m (984 ft) with DAD6001-BC/DAD6024/DAD4099 XLR phantom power adapter

## Power supply

With DAD6001-BC/DAD6024/DAD4099: 48 V phantom power ±4 V for full performance.  
For wireless systems: Min. 5 V through DPA adapter (SC4063 min. 3 V).

## Polarity

Positively increasing sound pressure produces positive going voltage on MicroDot pin.

## Connector

MicroDot, adapters are available

## Weight incl. cable and MicroDot connector

SC4060/61/62/63: 7.5 g (0.26 oz)  
SC4071: 9 g (0.32 oz)  
4080: 15 g (0.53 oz)  
SCO60-H/61-H: 13 g (0.46 oz)  
SCO71-H: 14 g (0.49 oz)

## Cable length

1.8 m (5.9 ft) (4080: 1.2 m (4 ft))

## Cable diameter

SC4060/61/62/63/71, 4080: 1,6 mm (0.06 in)  
SCO60-H/61-H/71-H: 2,2 mm (0.09 in)

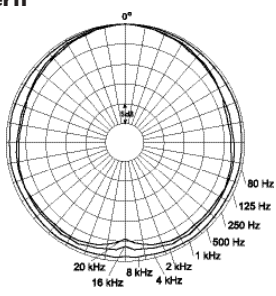
## Temperature range

-40 °C to 45 °C

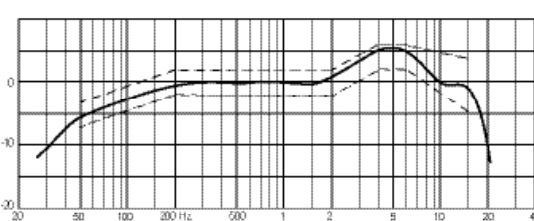
## Relative Humidity (RH)

Up to 90%

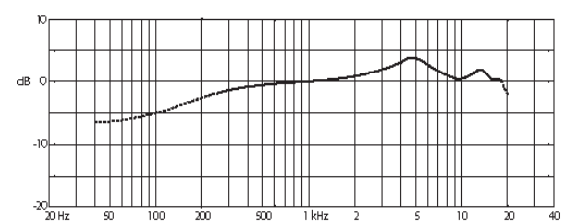
## Polar pattern



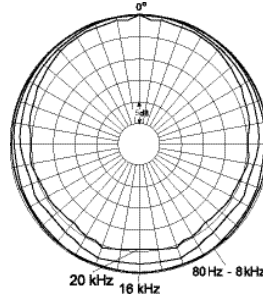
SC4060/61/62/63, SCO60-H/61-H



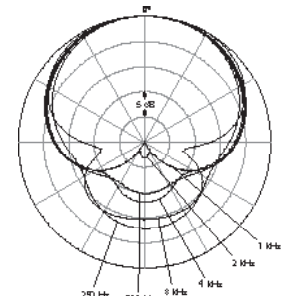
SC4071, SCO71-H



4080



SC4071, SCO71-H



4080

## Service & Repair

Products from DPA Microphones are extremely stable and there should not be any significant change in the specifications with time and use. If, however, you are not totally satisfied with the characteristics exhibited by these products, please contact your nearest DPA Microphones representative for further details of service and the repair facilities that are available.

## CE Marking

The CE mark guarantees that the product conforms with relevant directives approved by the European Commission.

EMC directive: 2004/108/EEC

Low voltage directive: 2006/95/EC



## Environmental Policy

This product is comprised by the Waste (WEEE) directive and should not be thrown in the garbage bin when obsolete. Instead, return it to your local DPA representative (or DPA Microphones A/S directly) who will dispose of the product in accordance with the current environmental standards.

RoHS directive: 2002/95/EC  
WEEE directive: 2002/96/EC

© October 2014, DPA Microphones A/S  
Product features and specifications are subject to change without notice.



## Head Office

DPA Microphones A/S  
Gydevang 42-44  
DK-3450 Allerød, Denmark

Tel: +45 4814 2828  
Fax: +45 4814 2700

info@dpamicrophones.com  
www.dpamicrophones.com

## US Sales Office

DPA Microphones, Inc.  
1500 Kansas Avenue, Unit 3A  
Longmont, CO 80501

Tel: +1 303-485-1025  
Fax: +1 303-485-6470

info-usa@dpamicrophones.com  
www.dpamicrophones.com

## APAC Sales Office

DPA Microphones Ltd.  
Unit 801-2, 8/F, Asia Orient Tower  
33 Lockhart Road, Wanchai  
Hong Kong

Tel: +852 2617 9990  
Fax: +852 2617 9887

www.dpamicrophones.com  
info-apac@dpamicrophones.com

