

GRAS 146AE

1/2" CCP



3.15 Hz - 20 kHz

18 dB(A) - 133 dB

50 mV/Pa

-40 - +125°C

10 - 90%

IP67

GRAS 146AE 1/2

125°C

BNC

-40



GRAS 146AE

-
-
-
-



IEC 61094-4/WS2F

- 125°C



GRAS 146AE	1/2"	(CCP)	CCP
CCP			NVH

LED	LED	TEDS	LED
146AE	IP67	"	"

-

146AE GRAS 46AE -40 125°C

-
-



GRAS

 (HALT)
HALT
-40°C +125°C
100

 NVH
150
100

146AE RA0357 10 kHz

-

IP67

146AE IP67

GRAS 46AE IEC



146AE NVH

IP55

-

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-

-

- /CAE

GoPro™

Picatinny



146AE

5

-
-
-
- CCP



146AE BNC 4 mA

146AE IEEE 1451.4 TEDS v. 1.0



TEDS

GRAS 42AG

GRAS 42AP

www.grasacoustics.com/e-data

GRAS HALT

(HALT)

HALT



GRAS

GRAS GRAS

GRAS

GRAS

GRAS GRAS

DANAK ISO

17025

Specifications

Polarization/Connection		0 V / CCP
Frequency range (± 1 dB)	Hz	5 to 10 k
Frequency range (± 2 dB)	Hz	3.15 to 20 k
Dynamic range lower limit with GRAS preamplifier	dB(A)	18
Dynamic range upper limit with GRAS CCP preamplifier	dB	133
Set sensitivity @ 250 Hz (± 2 dB)	mV/Pa	50
Set sensitivity @ 250 Hz (± 2 dB)	dB re 1V/Pa	-26
Output impedance	Ω	< 50
Power supply min. to max.	mA	2 to 20
Output Voltage Swing, min. @ 28 V CCP voltage supply	Vp	8
DC bias voltage, typ.	V	16
Microphone venting		Rear
IEC 61094-4 Designation		WS2F
Temperature range, operation	°C / °F	-40 to 125 / -40 to 257
IEC 61672 compliance		Class 1
Temperature range, storage	°C / °F	-40 to 85 / -40 to 185
Temperature coefficient @250 Hz	dB/°C / dB/°F	0.01 / 0.006 (typically)
Static pressure coefficient @250 Hz	dB/kPa	-0.003
Humidity range non condensing	% RH	10 to 90
Influence of axial vibration @1 m/s ²	dB re 20 μ Pa	66
TEDS UDID (IEEE 1451.4)		I27-0-0-0U
Connector type		BNC
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	35 / 1.23
IP rating		IP67***
Influence of humidity @250 Hz (10 -90% RH)	dB	<-0.3

GRAS HALT Test Parameters*

Humidity 90%	@50°C	48 hours
Drop - horizontal orientation of microphone, attached to 2 kg load	m	1.5
Drop - vertical, grid downwards, attached to 2 kg load	m	1.5
Drop - tumbling 1 meter	times	100
Vibration - horizontal and vertical	@8g	60 hours
IP rating**		IP67***

* HALT "GRAS HALT "

** IEC 60529

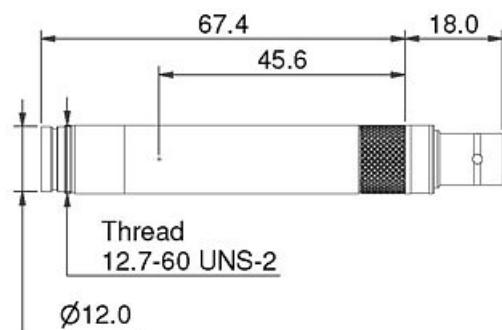
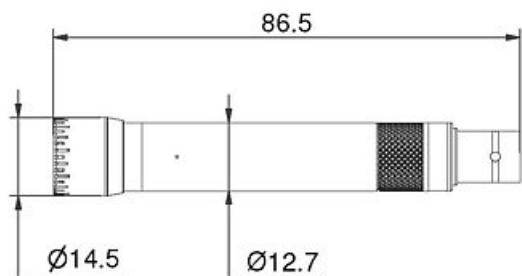
***IP67 1

IP IEC 60529:2013 DELTA FORCE Technology Venlighedsvej 4, 2970 Hørsholm, Danmark
www.delta.dk



GRAS Sound & Vibration

Dimensions in mm



GS0847
146AE

Included items

GRAS RA0341 Calibration Adapter

Optional items

GRAS RA0357	Random Incidence Corrector for 146AE
GRAS RA0504	GoPro adapter
GRAS RA0340	Dust, Oil and Water resistant protection grid
GRAS RA0354	Dust, Oil and Water resistant protection grid, package with 5 PCS
GRAS AM0391-1	High-Temperature Windscreen for 146AE, Click-Mount
GRAS AM0391-2	High-Temperature Windscreen for 146AE, Click-Mount, 5 pcs
GRAS AA0102	3 m BNC-BNC waterproof cable
GRAS AA0103	10 m waterproof BNC-BNC cable
GRAS AA0107	1 m waterproof/high temperature BNC-BNC cable
GRAS AA0108	3 m waterproof/high temperature BNC-BNC cable
GRAS AA0109	10 m waterproof/high temperature BNC-BNC cable
GRAS AA0110	30 m waterproof/high temperature BNC-BNC cable
GRAS CA2300	Accredited Calibration

GRAS Worldwide

Subsidiaries and distributors in more than 40 countries

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About GRAS Sound & Vibration

GRAS is a worldwide leader in the sound and vibration industry. We develop and manufacture state-of-the-art measurement microphones and related equipment for industries where acoustic measuring accuracy and repeatability are of the utmost importance. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, consumer electronics and other highly demanding industries. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect, trust and require.

GRAS Sound & Vibration is represented through subsidiaries and distributors in more than 40 countries and is part of Axiometrix Solutions, a leading test solutions provider comprised of globally recognized measurement brands. Read more at www.grasacoustics.com

grasacoustics.com

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