



## **PRODUCT DATA**

## Free-field microphone Nor1239

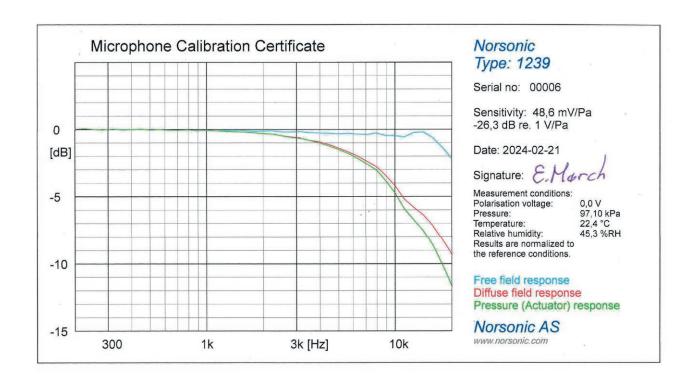
The Nor1239 is a high quality free-field 1/2-inch electret microphone conforming to the Class 1 specifications for sound level meters specified in IEC 61672-1 class 1.

The microphone is compliant with working standard microphone specifications (IEC 61094-4 Type WS2F). It can therefore be used as a direct replacement for other prepolarized free field microphones with a nominal sensitivity of 40 to 50 mV/Pa.

The use of high-quality materials and an artificial aging process ensures an ultra-stabile microphone, designed for the most demanding applications.

Each microphone is supplied with individual calibration certificates.







## **Technical specifications**

| Design   IEC 61094-4 Type WS2F   |   |   |
|--|---|---|
| Nominal external diameter 1/2-inch (13.2 mm)  Sensitivity level (nominal value) -27 dB (re. 1 V/Pa at 1 kHz) / 45 mV/Pa  Cartridge Capacitance (nominal value) 13 pF  Frequency range 10 Hz to 20 kHz  Maximum input sound pressure level 148 dBrms @ 3% distortion  Inherent noise (A-weighted equivalent sound pressure level) 416 dB  Temperature sensitivity (ref to 23°C @ 1 kHz) 45 dB max. (at 1 kHz, no condensation, 90% RH or less)  Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz) 45 dB from 85 kPa to 108 kPa 450.9 dB from 65 kPa to 85 kPa  Ambient temperature/humidity range for operation -20°C to +60°C  Dimensions (with protection grid) 13.2 mm dia. × 14.3 mm height  Preamplifier threads 11.7 mm 60 UNS  Weight 4.7 g  Warranty 36 months  CE, UKCA, China ROHS IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,  | Design  | IEC 61094-4 Type WS2F                                       |
| Sensitivity level (nominal value)  Cartridge Capacitance (nominal value)  13 pF  Frequency range  10 Hz to 20 kHz  Maximum input sound pressure level  Inherent noise (A-weighted equivalent sound pressure level)  Temperature sensitivity (ref to 23°C @ 1 kHz)  *\pmathrm{\pmathr | Frequency response  | Free-field type   |
| Cartridge Capacitance (nominal value)  Frequency range  10 Hz to 20 kHz  Maximum input sound pressure level  148 dBrms @ 3% distortion  Inherent noise (A-weighted equivalent sound pressure level)  Temperature sensitivity (ref to 23°C @ 1 kHz)  * 2±0.35dB (-10°C to +50°C) -2±0.5dB (-20°C to +60°C)  Humidity (ref 23°C, 50% RH)  * 2±0.14 dB max. (at 1 kHz, no condensation, 90% RH or less)  Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz)  * 2±0.4 dB from 85 kPa to 108 kPa -2.0 dB from 65 kPa to 85 kPa  Ambient temperature/humidity range for operation  Ambient temperature range for storage  -20°C to +60°C, 90% RH (no condensation)  Ambient temperature range for storage  -20°C to +60°C  Dimensions (with protection grid)  13.2 mm dia. × 14.3 mm height  Preamplifier threads  11.7 mm 60 UNS  Weight  4.7 g  Warranty  36 months  CE, UKCA, China RoHS IEC 61672-1:2013 class1, ANSI/ASA \$1.4-2014/Part 1 class 1,  | Nominal external diameter                                   | 1/2-inch (13.2 mm)  |
| Frequency range       10 Hz to 20 kHz         Maximum input sound pressure level       148 dBrms @ 3% distortion         Inherent noise (A-weighted equivalent sound pressure level)       <16 dB         Temperature sensitivity (ref to 23°C @ 1 kHz)       <±0.35dB (-10°C to +50°C)         Humidity (ref 23°C , 50% RH)       <±0.14 dB max. (at 1 kHz, no condensation, 90% RH or less)         Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz)       <±0.4 dB from 85 kPa to 108 kPa         Ambient temperature/humidity range for operation       -20°C to +60°C, 90% RH (no condensation)         Ambient temperature range for storage       -20°C to +60°C         Dimensions (with protection grid)       13.2 mm dia. × 14.3 mm height         Preamplifier threads       11.7 mm 60 UNS         Weight       4.7 g         Warranty       36 months         CE, UKCA, China RoHS IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,  | Sensitivity level (nominal value)                           | -27 dB (re. 1 V/Pa at 1 kHz) / 45 mV/Pa                     |
| Maximum input sound pressure level     148 dBrms @ 3% distortion       Inherent noise (A-weighted equivalent sound pressure level)     <16 dB       Temperature sensitivity (ref to 23°C @ 1 kHz)     <±0.35dB (-10°C to +50°C)       +0.5dB (-20°C to +60°C)     <±0.14 dB max. (at 1 kHz, no condensation, 90% RH or less)       Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz)     <±0.4 dB from 85 kPa to 108 kPa<br><±0.9 dB from 65 kPa to 85 kPa       Ambient temperature/humidity range for operation     -20°C to +60°C, 90% RH (no condensation)       Ambient temperature range for storage     -20°C to +60°C       Dimensions (with protection grid)     13.2 mm dia. × 14.3 mm height       Preamplifier threads     11.7 mm 60 UNS       Weight     4.7 g       Warranty     36 months       Applicable standards     CE, UKCA, China RoHS iEC 61672-1:2013 class 1, ANSI/ASA \$1.4-2014/Part 1 class 1,  | Cartridge Capacitance (nominal value)                       | 13 pF   |
| Inherent noise (A-weighted equivalent sound pressure level)  Temperature sensitivity (ref to 23°C @ 1 kHz)   | Frequency range   | 10 Hz to 20 kHz   |
| Temperature sensitivity (ref to 23°C @ 1 kHz)  | Maximum input sound pressure level                          | 148 dBrms @ 3% distortion                                   |
| (ref to 23°C @ 1 kHz) < ±0.5dB (-20°C to +60°C)   Humidity (ref 23°C , 50% RH) < ±0.14 dB max. (at 1 kHz, no condensation, 90% RH or less)   Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz) < ±0.4 dB from 85 kPa to 108 kPa  | Inherent noise (A-weighted equivalent sound pressure level) | <16 dB  |
| Atmospheric pressure sensitivity (ref 101.325 kPa @ 250 Hz)  Ambient temperature/humidity range for operation  Ambient temperature range for storage  Dimensions (with protection grid)  Preamplifier threads  11.7 mm 60 UNS  Weight  4.7 g  Warranty  (at 1 kHz, no condensation, 90% RH or less)  |   |   |
| (ref 101.325 kPa @ 250 Hz) <±0.9 dB from 65 kPa to 85 kPa   Ambient temperature/humidity range for operation -20°C to +60°C, 90% RH (no condensation)   Ambient temperature range for storage -20°C to +60°C   Dimensions (with protection grid) 13.2 mm dia. × 14.3 mm height   Preamplifier threads 11.7 mm 60 UNS   Weight 4.7 g   Warranty 36 months   CE, UKCA, China RoHS IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,  | Humidity (ref 23°C , 50% RH)                                |   |
| Ambient temperature range for storage  |   |   |
| Dimensions (with protection grid)13.2 mm dia. × 14.3 mm heightPreamplifier threads11.7 mm 60 UNSWeight4.7 gWarranty36 monthsApplicable standardsCE, UKCA, China RoHS<br>IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1<br>class 1,   |   | -20°C to +60°C, 90% RH (no condensation)                    |
| Preamplifier threads11.7 mm 60 UNSWeight4.7 gWarranty36 monthsApplicable standardsCE, UKCA, China RoHS<br>IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1<br>class 1,   | Ambient temperature range for storage                       | -20°C to +60°C  |
| Weight 4.7 g  Warranty 36 months  CE, UKCA, China RoHS IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,   | Dimensions (with protection grid)                           | 13.2 mm dia. × 14.3 mm height                               |
| Warranty  CE, UKCA, China RoHS  IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,  | Preamplifier threads  | 11.7 mm 60 UNS  |
| CE, UKCA, China RoHS IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,   | Weight  | 4.7 g   |
| Applicable standards IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1,   | Warranty  | 36 months   |
|  | Applicable standards  | IEC 61672-1:2013 class1, ANSI/ASA S1.4-2014/Part 1 class 1, |



