

## DATASHEET

## VALVE SENSE INSPECTION



## APPROVALS



ATEX approval: EX-Zone 1/21  
 Ⓢ II 2G Ex ib IIC T4 Gb  
 Ⓢ II 2D Ex ib IIIC T135°C Db



IECEx approval: EX-Zone 1/2  
 Ex ib IIC T4 Gb  
 Ex ib IIIC T135°C Db



NEC500 approval requested  
 Class I, II, III Division 1  
 Groups A B C D E F G T4

## IS540.1 SMARTPHONE

## TECHNICAL FEATURES SMARTPHONE MODEL M540A01

|                                  |  |
|----------------------------------|--|
| <b>Operating system</b>          | Android™ 12  |
| <b>Processor</b>                 | Qualcomm QCM6490   |
| <b>Memory</b>                    | 8 GB RAM   128 GB internal memory   microSD memory up to 128 GB  |
| <b>Supported frequency bands</b> | 2G GSM: 850/900/1800/1900 MHz<br>3G WCDMA: B1/2/4/5/8<br>4G LTE-FDD: B1/2/3/4/5/7/8/12 MFBI B13/14/17/20/25/26/28/29/30/66/71<br>4G LTE-TDD: B38/39/40/41/42/43/48<br>5G NR: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n30/n38/n40/n41/n48/n66/n71/n77/n78/n79 |
| <b>Dimensions</b>                | Size: 180,0 x 84,9 x 20,6 mm   weight: 422 g   |
| <b>Display</b>                   | 6"   Gorilla Glass® 3rd generation   1080 x 2160 pixels   FHD  |
| <b>Battery</b>                   | 4400 mAh   replaceable   |
| <b>Camera</b>                    | 48 MP AF rear camera   5 MP FF front camera  |
| <b>SIM support</b>               | 1 nano SIM + eSIM  |
| <b>Connections</b>               | Wi-Fi 6: IEEE 802.11 a/b/g/n/ac/ax/e/k/r/v<br>Bluetooth® 5.2<br>GPS, A-GPS, Glonass, A-Glonass, Beidou, Galileo<br>Near Field Communication (NFC)  |
| <b>Ports in/out</b>              | 16-pin ISM interface<br>USB-C  |
| <b>Sensors</b>                   | Accelerometer, Gyroscope, Light, Magnetic, Proximity, Pressure sensors   |
| <b>Types of protection</b>       | IP68 dust-/waterproof   MIL-STD-810H   usable from -20 °C to +55 °C  |



## IS-VS1A.1 INSPECTION EQUIPMENT

## TECHNICAL FEATURES MEASURING ELECTRONIC MODEL MVS1A01

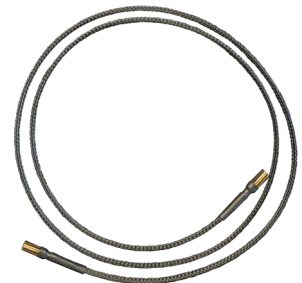
|                              |   |
|------------------------------|---|
| <b>Analog band width</b>     | 20 ... 500 kHz                                  |
| <b>Input range</b>           | 94 dBAE / 100 dBAE                              |
| <b>Sampling rate</b>         | Res.: 2 MHz / 16 bit                            |
| <b>Noise floor</b>           | <12 µVRMS (95 – 300 kHz)                        |
| <b>Power consumption</b>     | <700 mW   |
| <b>Dimension</b>             | Size: 141,2 x 96,0 x 51,85 mm   weight: 219,3 g |
| <b>Operating temperature</b> | Usable from -20 °C to +55°C                     |



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## TECHNICAL FEATURES SENSORS

|                                |                     |              |
|--------------------------------|---------------------|--------------|
| <b>IS-SU150F1.1</b>            | Sensor Ultrasonic   |              |
| <b>Frequency range</b>         | 100 - 450 kHz       |              |
| <b>Operating temperature</b>   | -40 °C ... + 120 °C |              |
| <b>Connector</b>               | SMB                 |              |
| <b>Shield Cross-Talk</b>       | > -80 dB            |              |
| <b>Dimension</b>               | 22,3 x 18,2 mm      |              |
| <b>Weight</b>                  | 29 g                |              |
| <b>IS-SU150F2.1</b>            | Sensor Ultrasonic   |              |
| <b>Frequency range</b>         | 100 - 450 kHz       |              |
| <b>Operating temperature</b>   | -40 °C ... + 120 °C |              |
| <b>Connector</b>               | SMB                 |              |
| <b>Shield Cross-Talk</b>       | > -80 dB            |              |
| <b>Dimension</b>               | 22,3 x 37,5 mm      |              |
| <b>Weight</b>                  | 63,4 g              |              |
| <b>IS-SU030F2.1 (optional)</b> | Sensor Ultrasonic   |              |
| <b>Frequency range</b>         | 25 - 80 kHz         |              |
| <b>Operating temperature</b>   | -40 °C ... + 120 °C |              |
| <b>Connector</b>               | SMB                 |              |
| <b>Shield Cross-Talk</b>       | > -80 dB            |              |
| <b>Dimension</b>               | 22,3 x 37,5 mm      |              |
| <b>Weight</b>                  | 64 g                |              |
| <b>IS-SC120BB1.1</b>           | Sensor Cable        |              |
| <b>Length</b>                  | 120 cm              | 2 pcs. / Set |
| <b>Connector</b>               | SMB <-> SMB         |              |
| <b>Sheathing</b>               | Braided hose        |              |
| <b>Temperature range</b>       | -20 °C ... +60 °C   |              |
| <b>Weight</b>                  | 20 g (each)         |              |



## TECHNICAL FEATURES WAVEGUIDE

|                          |                       |   |
|--------------------------|-----------------------|---|
| <b>IS-WGLF1.1</b>        | Waveguide Lock        |   |
| <b>Diameter</b>          | 55 mm                 | Waveguide Lock; fixation for sensor F1" indicates used sensor |
| <b>Weight</b>            | 79,5 g                |   |
| <b>IS-WGxx.1</b>         | Waveguide             |   |
| <b>Temperature range</b> | > 120 °C and < -50 °C |   |
| <b>Dimension</b>         | 220 x 7 mm            |   |
| <b>Weight</b>            | 89,8 g                |   |



## SET CONTENT

Measuring electronic IS-VS1A.1, Sensor IS-SU150F1.1, Sensor IS-SU150F2.1, Waveguide Lock IS-WGLF1.1, Waveguide IS-WGxx.1, 2 x Sensor Cable, Coupling medium, Coupling film, IS540.1 Smartphone, Battery, i.safe PROTECTOR 2.0 Type C USB Cable, Power Adapter universal, Screwdriver, Display Protection Foil, Display Cleaning Cloth, Quick Start Manual and Safety Instructions, Case

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