# Double galvanic isolators

## 5 – 1.800 MHz in F-technique; DGIS-1-SET

**22380023**
DGIS-1-SET, isolator



**22380023**
DGIS-1-SET, cover




KLASSE A CLASS + 10 dB

- Protection of subscribers premise network equipment against electrical hazards caused by power surges, lightnings and variabilities in local currents
- 5 – 1.800 MHz bandwidth
- Double galvanic isolation acc. to IEC/EN 60728-11:2019-02 point 10
- Surge immunity according to IEC 61000-4-5 level 2
- Intermodulation resistance acc. to EN 60728-4 and UM TS 414
- Screening according to EN 50083-2 Class A +10 dB (30 – 1.800 MHz)
- All mounting holes with hole spacing Nx5 mm
- Housings with 12,5 mm distance between the axis of F-connector and the metal plate surface plus clearance of 7,5 mm for cable management underneath the body
- 1 GND block with screw for 6 mm² GND wire
- Compact housing design with CuSn white bronze plating, F-female connectors acc. to IEC/EN 61169-24 (Ø 9,45 ± 0,05 mm)
- DGIS-1-SET including plastic protection cover, material ABS, color RAL9010, dimensions 140 x 60 x 36 mm (H x W x D)

| Parameter | | Frequency [MHz] | DGIS-1-SET |
|---|---|---|---|
| **Insertion loss [dB max.]** | | 5 – 10 | 0,2 + 0,2 |
| | | 10 – 40 | 0,2 + 0,2 |
| | | 40 – 204 | 0,2 + 0,2 |
| | | 204 – 258 | 0,2 + 0,2 |
| | | 258 – 470 | 0,2 + 0,2 |
| | | 470 – 862 | 0,3 + 0,2 |
| | | 862 – 1.006 | 0,3 + 0,2 |
| | | 1.006 – 1.218 | 0,4 + 0,2 |
| | | 1.218 – 1.800 | 0,5 + 0,3 |
| **Return loss [dB min.]** | All ports | 5 – 10 | 16 |
| | | 10 – 47 | 18 |
| | | 47 – 1.800 | 18* |
| **Intermodulation distortion,[1] all ports** (acc. to EN 60728-4 and UM TS 414) | | | |
| After 25 VDC surge (1,2/500µs) | | | 0 dBµV / -120 dBc |
| After 1 kV surge (1,2/50µs) | | | 0 dBµV / -120 dBc |
| After 150 VDC surge | | | 0 dBµV / -120 dBc |
| **Galvanic isolation[2]** | 2120 V DC | | ≤ 0,7 mA during 1 minute (inner conductor input port to inner conductor output port) |
| | 2120 V DC | | ≤ 0,7 mA during 1 minute (outer conductor input port to outer conductor output port) |
| | 230 V AC | | 50 Hz / 60 Hz: ≤ 2,0 mA RMS (inner conductor input port to inner conductor output port) |
| | 230 V AC | | 50 Hz: ≤ 2,3 mA typ. / ≤ 3,2 mA max.<br>60 Hz: ≤ 2,8 mA typ. / ≤ 3,8 mA max.<br>(outer conductor input port to outer conductor output port) |
| **Operation temperature [°C]** | | | -25 ... +60 |
| **Order No.** | | | **22380023** |

* From 94 MHz with -1,5 dB/oct., but min. 12 dB

[1] Test setup: 2 combined test signals applied at one output port @ 120 dBµV
Test 1: with 2 signals f1 @55,25 MHz + f2 @61,25 MHz - IM harmonics measured at 2xf1 + f1+f2 + 2xf2
Test 2: with 2 signals f1 @193,25 MHz + f2 @199,25 MHz - IM harmonics measured at 2xf1 + f1+f2 + 2xf2

[2] According to EN 60728-11:2019-02 point 10: at 2120 VDC ≥ 1 minute, leakage current ≤ 0,7 mA;
at 230 VAC 50/60 Hz, Leakage current ≤ 8,0 mA RMS (inner to inner conductor and outer to outer conductor),
test environmental temperature 0°C – 25°C



**Mounting position**
of the DGIS-1-SET
(transparency only for illustration)

*Subject to technical changes. Version 1.2.1*

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