

# HUBER+SUHNER® DATA SHEET RF ASSEMBLIES

## Test Lead: TL-P

Rev.: A



### Description

High flexible Test Lead for Passive Intermodulation (PIM) and Return Loss with armour cable and 1x 4.3-10 male straight (screw version) and 1x DIN 7/16 male straight connectors for frequency up to 4 GHz.

ID (Material/Item No.)

**85029280**

Description (Product)

**TL-P-11431X-11716-03000-51**



### Product Configuration

|                    |                                                         |
|--------------------|---------------------------------------------------------|
| Length of Assembly | 3000 mm +/- 30 mm (118.1 +/- 1.18 in)                   |
| Connectors         | 4.3-10 (screw) straight male / DIN 7/16 straight male   |
|                    | Coupling nuts: Steel / 431X: HEX.22 mm / DIN: Hex.32 mm |
|                    | Body: Brass / SUCOPLATE®                                |
|                    | Center Contact: Cu-Be / Gold plated                     |
| Cable              | Inner Conductor: Copper / Silver plated wire            |
|                    | Dielectric: PTFE                                        |
|                    | Outer Conductor: Braid / Tin plated                     |
|                    | Jacket Armour: TPU black / max. Ø 10.4 mm               |

### Technical Data

#### Mechanical Data

|                        |                         |                 |                       |
|------------------------|-------------------------|-----------------|-----------------------|
| Connector Interface    | IEC 61169-54 /4         | Bending Radius: | min. 50 mm (1.97 in)  |
| Mating cycle *)        | > 2000                  | repeated (50x)  | min. 80 mm (3.15 in)  |
| Retention Force        | < 200 N                 | dynamic         | min. 110 mm (4.30 in) |
| Weight                 | 0.590 kg (1.30 lb)      |                 |                       |
| Mating Torque (Recom.) | 431X: 5 Nm / DIN: 20 Nm |                 |                       |
| Crush Resistance       | 80 kN/m                 |                 |                       |

#### Environmental Data

|                          |                           |
|--------------------------|---------------------------|
| Operating Temperature    | - 15°C to + 65°C          |
| Installation Temperature | - 10°C to + 55°C          |
| Storage Temperature      | - 40°C to + 85°C          |
| RoHS, REACH              | compliant                 |
| Water protection         | IP 67, in mated condition |

#### Electrical Data

|                                     |                       |         |         |         |
|-------------------------------------|-----------------------|---------|---------|---------|
| Impedance                           | 50 Ω +/-2 Ω           |         |         |         |
| Operating Frequency                 | up to 4 GHz           |         |         |         |
| Velocity of propagation             | 71 %                  |         |         |         |
| Capacitance                         | 92 pF / m             |         |         |         |
| Dielectric withstand voltage        | 5 kV rms              |         |         |         |
| Screening effectiveness             | > 110 dB up to 4 GHz  |         |         |         |
| Passive Intermodulation **)         | ≥ -117 dBm (-160 dBc) |         |         |         |
| Frequency                           | 1.0 GHz               | 2.0 GHz | 3.0 GHz | 4.0 GHz |
| Return Loss                         | - 29 dB               | - 26 dB | - 23 dB | - 20 dB |
| Attenuation (max. at 25°C)          | 1.45 dB               | 2.10 dB | 2.60 dB | 3.05 dB |
| Power handling (seal level at 40°C) | 560 W                 | 390 W   | 320 W   | 280 W   |

### General Information

\*) Number of Mating

With use of torque wrench at recommended value, clean interface after each 20 mating's.  
Mated with connectors according IEC or MIL standard.

\*\*) PIM Testing

100%, according IEC 62037-2

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

#### WAIVER!

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



**HUBER+SUHNER AG**  
**RF Technology**  
**9100 Herisau, Switzerland**  
Phone +41 (0)71 353 41 11  
Fax +41 (0)71 353 45 90  
[www.hubersuhner.com](http://www.hubersuhner.com)

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