

Thank you for purchasing the 50Ω DC Block 701975. To ensure correct use, please read this manual thoroughly before beginning operation. After reading the manual, keep it in a convenient location for quick reference whenever a question arises during operation.

Contact information of Yokogawa offices worldwide is provided on the following sheet.

- PIM113-01Z2 List of worldwide contacts

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YOKOGAWA ◆

IM 701975-01E
4th Edition

Notes

- The contents of this manual are subject to change without prior notice as a result of continuing improvements to the software's performance and functions. The figures given in this manual may differ from those that actually appear on your screen.
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- Copying or reproducing all or any part of the contents of this manual without the permission of YOKOGAWA is strictly prohibited.

The following symbols are used in this manual.



Improper handling or use can lead to injury to the user or damage to the instrument. This symbol appears on the instrument to indicate that the user must refer to the user's manual for special instructions. The same symbol appears in the corresponding place in the user's manual to identify those instructions. In the manual, the symbol is used in conjunction with the word "WARNING" or "CAUTION."

WARNING

Calls attention to actions or conditions that could cause serious or fatal injury to the user, and precautions that can be taken to prevent such occurrences.

CAUTION

Calls attentions to actions or conditions that could cause light injury to the user or damage to the instrument or the user's data, and precautions that can be taken to prevent such occurrences.

French

AVERTISSEMENT

Attire l'attention sur des gestes ou des conditions susceptibles de provoquer des blessures graves (voire mortelles), et sur les précautions de sécurité pouvant prévenir de tels accidents.

ATTENTION

Attire l'attention sur des gestes ou des conditions susceptibles de provoquer des blessures légères ou d'endommager l'instrument ou les données de l'utilisateur, et sur les précautions de sécurité susceptibles de prévenir de tels accidents.

Note

Calls attention to information that is important for proper operation of the instrument.

Safety Precautions

This product is designed to be used by a person with specialized knowledge. Make sure to comply with the safety precautions mentioned hereafter when handling the 50Ω DC Block. YOKOGAWA assumes no responsibility for any consequences resulting from failure to comply with these safety precautions. Also, read the User's Manual of the measuring instrument thoroughly so that you are fully aware of its specifications and handling, before starting to use the 50Ω DC Block. This manual is part of the product and contains important information. Store this manual in a safe place close to the instrument so that you can refer to it immediately. Keep this manual until you dispose of the instrument.

The following symbols are used on this instrument.



Handle with care. Refer to the user's manual or service manual. This symbol appears on dangerous locations on the instrument which require special instructions for proper handling or use. The same symbol appears in the corresponding place in the manual to identify those instructions.

Make sure to comply with the following safety precautions in order to prevent accidents such as an electric shock which impose serious health risks to the user and damage to the instrument.



WARNING

Grounding of the measuring instrument

The protective grounding terminal of the measuring instrument must be connected to ground.

Nondestructive input voltage range

Do not apply a voltage exceeding the nondestructive input voltage between input and ground.

Do not operate in wet/damp conditions

To avoid electric shock, do not operate this probe in wet or damp conditions.

Do not disassemble or modify

Do not disassemble or modify the product. YOKOGAWA assumes no liability if you disassemble or modify the product.

Avoid exposed circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

Handling of the 50Ω DC Block

Do not touch the central conductor of the 50Ω DC Block with your hands. Also, never touch the 50Ω DC Block with wet hands.

French



AVERTISSEMENT

Mise à la terre de l'instrument de mesure

S'assurer de connecter la mise à la terre protectrice de l'instrument de mesure.

Plage de tension d'entrée non destructive

Ne pas appliquer de tension supérieure à ± 10 V (c.c. + crete c.a.) entre l'entrée et la terre.

Ne pas utiliser dans des conditions humides

Afin d'éviter un choc électrique, ne pas utiliser cette sonde dans des conditions humides.

Ne pas démonter ou modifier

Ne pas démonter ou modifier le produit. YOKOGAWA se dégage de toute responsabilité si vous démontez ou modifiez le produit.

Éviter les circuits exposés

Afin d'éviter des blessures, retirer les bijoux comme les bagues, montres et autres objets métalliques. Ne pas toucher les connexions et les composants exposés après mise sous tension.

Manipulez le bloc de 50Ω DC en toute sécurité

Ne pas toucher le conducteur central du bloc 50Ω DC avec vos mains. De même, ne jamais toucher le bloc 50Ω DC avec les mains mouillées.

Waste Electrical and Electronic Equipment



Waste Electrical and Electronic Equipment (WEEE), Directive

(This directive is valid only in the EU.)

This product complies with the WEEE directive marking requirement. This marking indicates that you must not discard this electrical/electronic product in domestic household waste.

Product Category

With reference to the equipment types in the WEEE directive, this product is classified as a "Monitoring and control instruments" product.

When disposing products in the EU, contact your local Yokogawa Europe B.V. office. Do not dispose in domestic household waste.

Authorized Representative in the EEA

Yokogawa Europe B.V. is the authorized representative of Yokogawa Test & Measurement Corporation for this product in the EEA. To contact Yokogawa Europe B.V., see the separate list of worldwide contacts, PIM 113-01Z2.

1 Description

Model 701975, 50Ω DC Block is a blocking capacitor with SMA type connectors and having a characteristic impedance of 50 Ω.

2 Appearance

As shown in the figure below, the probe consists of the probe itself, and standard accessories.

3 Operation

Insert the block into the signal line when you want to cut DC voltage and allow only harmonic signals to pass.

When combined with the Yokogawa Model 701974 PBL5000 5 GHz Resistance Probe you can take advantage of the PBL5000's low input capacitance to take measurements that are free of the effects of DC bias on the circuit under test. When using this configuration, be sure to note the passing frequency bandwidth of the 50Ω DC Block.



CAUTION

Use a soft cloth to clean the dirt. Prevent damage to the probe. Avoid immersing the probe, using abrasive cleaners, and using chemicals contains benzene or similar solvents.

French



ATTENTION

Utiliser un chiffon doux pour nettoyer la sonde. Faire attention de ne pas casser la sonde. Ne pas immerger la sonde dans un liquide ni utiliser de nettoyants abrasifs sur la sonde. Ne pas utiliser de benzène ni d'autres solvants sur la sonde.

4 Specifications

Item	Specifications
Standard Operating Environment	Temperature: 23°C \pm 5°C Humidity: 55% \pm 10% RH (no condensation)
System Requirements	Temperature: 5°C to 40°C Humidity: 20% to 80% RH (no condensation)
Storage Environment	Temperature: -20°C to 60°C Humidity: 20% to 80% RH (no condensation)
Total length of probe	Approximately 1.1 m
Connector type	SMA
Input resistor ¹	Within \pm 2% of 450 Ω Within \pm 2% of 950 Ω
Input capacitance	450 Ω: 0.25 pF (Typical ²) 950 Ω: 0.4 pF (Typical ²)
Attenuation ratio ³	Within \pm 3.5% of 10:1 Within \pm 3.5% of 20:1
Frequency bandwidth ⁴	DC to 5 GHz (-3 dB or more)
Rise time ⁴	70 ps or less (Typical ²)
Maximum input voltage	20 Vrms, 40 VACpeak
Nondestructive input voltage	20 Vrms, 40 VACpeak

¹ When no load is present. Standard operating environment.

² Typical value represents a typical or average value. It is not strictly guaranteed.

³ In combination with an oscilloscope having an input resistance of 50 Ω. Standard operating environment.

⁴ When the distance between probe tip and ground is 9 mm. Standard operating environment.