

# DL Series

## Accessories



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# Current Probes For High Current and Wide Bandwidth Measurements

Yokogawa offers 4 different models of current probes to suit your various current measurement needs. Bandwidths of DC to 2, 10, 50, and 100 MHz are supported, with current measurement ranges of up to 30, 150, or 500A. Measuring current is a simple process of placing the probe clamp directly around the conductor to be measured. The current probes can be powered by the DL's probe power supply terminals. Hence, no external amplifier is required. The probes can be directly connected to the DL series instruments. Current values, in Amperes, can be directly selected via the current probe configuration menu of the DL series instruments, eliminating the usual hassle of voltage/current conversion.

## 701931 DC to 2 MHz, 500 A



Bandwidth: DC to 2 MHz(-3dB)  
 Maximum continuous input range: 500 Arms  
 Amplitude accuracy  
 (0 to 500 Arms):  $\pm 1.0\%$  of rdg  $\pm 5$  mV  
 (to 700 Apeak):  $\pm 2.0\%$  of rdg (DC, 45 to 66 Hz)  
 Weight: Approx. 520 g

## 701930 DC to 10 MHz, 150 A



Bandwidth: DC to 10 MHz(-3dB)  
 Maximum continuous input range: 150 Arms  
 Amplitude accuracy  
 (0 to 150 Arms):  $\pm 1.0\%$  of rdg  $\pm 1$  mV  
 (to 300 Apeak):  $\pm 2.0\%$  of rdg (DC, 45 to 66 Hz)  
 Weight: Approx. 500g

## 701933 DC to 50 MHz, 30 A



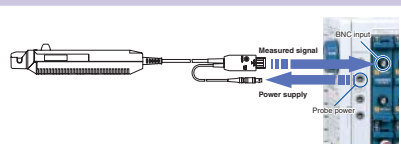
Bandwidth: DC to 50 MHz(-3dB)  
 Maximum continuous current input range: 30 Arms  
 Amplitude accuracy  
 (0 to 30 Arms):  $\pm 1.0\%$  of rdg  $\pm 1$  mV  
 (to 50 Apeak):  $\pm 2.0\%$  of rdg (DC, 45 to 66 Hz)  
 Weight: Approx. 230 g

## 701932 DC to 100 MHz, 30 A



Bandwidth: DC to 100 MHz(-3dB)  
 Maximum continuous input range: 30 Arms  
 Amplitude accuracy  
 (0 to 30 Arms):  $\pm 1.0\%$  of rdg  $\pm 1$  mV  
 (to 50 Apeak):  $\pm 2.0\%$  of rdg (DC, 45 to 66 Hz)  
 Weight: Approx. 240 g

- Bandwidth: DC to 2/10/50/100 MHz
- Max. Current: Max. 30/150/500 A
- Clamp Configuration Makes Current Measurements Easy
- No External Amplifier Required: Connects Directly to DL Series Instruments
- Powered by the DL's Probe Power Supply Connectors
- Current Values Can Be Read Directly on DL Series Instruments
- Includes Demagnetizing Switch and Zero Adjust Dial Functions



## 701934 Probe Power Supply

A power supply for current probes, FET probes, and differential probes. Supplies power for up to four probes, including large current probes.



Number of power supply connectors: 4  
 Output voltage:  $\pm 12$  V  $\pm 0.5$  V  
 Rated output current: +12 V: 2.5 A, -12 V: 2.5 A  
 (the total value of four outputs)  
 Rated supply voltage: AC100 to 240 V (50/60 Hz)  
 External dimensions: Approx. 80 (W) \* 119 (H) \* 200 (D) mm  
 Weight: Approx. 1.1 kg

## 701935 Deskew signal source



For use with the Power Supply Analysis option  
 Output voltage: Approx. 0 to 5 V  
 Output current: Approx. -100 to 0 mA

## Current Probes

| Model  | Frequency bandwidth | Maximum continuous input range | Max. peak current value | Output voltage rate | Power supplies     |
|--------|---------------------|--------------------------------|-------------------------|---------------------|--------------------|
| 701931 | DC to 2 MHz         | 500 Arms                       | 700 Apeak               | 0.01 V/A            | Power supply cable |
| 701930 | DC to 10 MHz        | 150 Arms                       | 300 Apeak               | 0.01 V/A            | Power supply cable |
| 701933 | DC to 50 MHz        | 30 Arms                        | 50 Apeak                | 0.1 V/A             | Power supply cable |
| 701932 | DC to 100 MHz       | 30 Arms                        | 50 Apeak                | 0.1 V/A             | Power supply cable |

■ See the bulletin 7019-30E for detailed specifications.

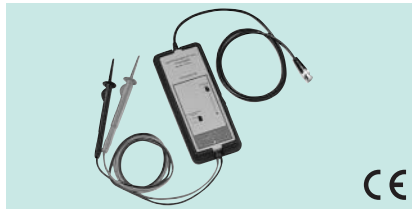
■ When using the DL to power the current probes, make sure that the total current consumption of the probes does not exceed the DL's probe power rating. See the following web site for details.

<http://www.yokogawa.com/tm/probe/>

# Differential Probes For High-Voltage and High-Bandwidth Measurements

Yokogawa's differential probes let you make wide-bandwidth differential measurements. Just connect the output of the probe to the input of a single-ended digital oscilloscope. We provide you a variety of differential probes, which can be utilized for measuring the gate-to-source voltage of a switching power supply, read/write signals of a hard disk drive, high-speed logic signals, CAN bus signals, and more.

## 700925 Max. ±500 V/ 15 MHz



Bandwidth: DC to 15 MHz(-3dB)  
 Input attenuation ratio: Switch between 1/10, 1/100  
 Maximum allowed differential voltage  
 : ±500 V(DC+ACpeak) or 350 Vrms (1/100)  
 Maximum common mode input voltage  
 : ±500 V(DC+ACpeak) or 350 Vrms(1/10, 1/100)

## 700924 Max. ±1400 V/ 100 MHz



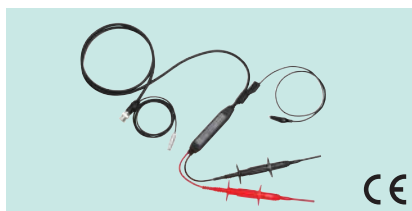
Bandwidth: DC to 100 MHz(-3dB)  
 Input attenuation ratio:  
 Switch between 1/100 and 1/1000  
 Maximum allowed differential voltage  
 : ±1400 V(DC+ACpeak) or 1000 Vrms(1/1000)  
 Maximum common mode input voltage  
 : ±1400 V(DC+ACpeak) or 1000 Vrms(1/100, 1/1000)

## 701921 Max. ±700 V/ 100 MHz



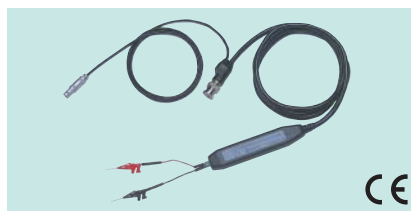
Bandwidth: DC to 100 MHz(-3dB)  
 Input attenuation ratio: Switch between 1/10 and 1/100  
 Maximum allowed differential voltage  
 : ±700 V(DC+ACpeak, 1/100)  
 Maximum common mode input voltage  
 : ±700 V(DC+ACpeak) (1/10, 1/100)

## 701922 Max. ±20 V/ 200 MHz



Bandwidth: DC to 200 MHz(-3dB)  
 Input attenuation ratio: 1/10(fixed)  
 Maximum allowed differential voltage: ±20 V(DC+ACpeak)  
 Maximum common mode input voltage: ±60 V(DC+ACpeak)  
 50 Ω output

## 701920 Max. ±12 V/ 500 MHz



Bandwidth: DC to 500 MHz(-3dB)  
 Input attenuation ratio: 1/10(fixed)  
 Input impedance: 100 KΩ /2.5 pF  
 Maximum allowed differential voltage: ±12 V(DC+ACpeak)  
 Maximum common mode input voltage: ±30 V(DC+ACpeak)  
 50 Ω output

## 701923 Max. ±5 V/ 2 GHz



Bandwidth: DC to 2 GHz  
 Input attenuation ratio: 1/10(with 50 Ω input)  
 Maximum allowed differential voltage: ±5 V  
 Maximum common mode input voltage: ±7 V  
 Input impedance: 50 kΩ //Approx. 1.1 pF

## B9852MJ

Power cable



The B9852MJ cable supplies power to the 700924, 700925 and 701921 differential probes\* from the DL probe power connectors. (The probe power option is required on the DL unit.)

## 700976

50 Ω terminator



Used to connect an oscilloscope having a 1 MΩ input to a probe with a 50 Ω output. It is required when using the 701920 and 701922 probes with the DL1600 series.

\* Cable only works with newer 700924, 700925 and 701921 probes that indicate "6 VDC or 9 VDC" at the probe input power connector.

## Differential Probe Selection Guide

| Model  | Frequency bandwidth | Attenuation Ratio | Maximum allowed differential voltage | Maximum input voltage | Power supplies  | Application   |
|--------|---------------------|-------------------|--------------------------------------|-----------------------|---|---|
| 700924 | DC to 100 MHz(-3dB) | 1/100, 1/1000     | ±1400 V(DC+ACpeak)                   | ±1400 V(DC+ACpeak)    | AA batteries or B9852MJ Power cable*<br>*: sold separately    | For High voltage measurement<br>•High voltage(+/-1400 V) can be measured safely<br>•Useful for evaluating high-frequency inverter circuits (e.g., IGBT)<br>•High common mode input voltage            |
| 701921 | DC to 100 MHz(-3dB) | 1/10, 1/100       | ±700 V(DC+ACpeak)                    | ±1000 V(DC+ACpeak)    | AA batteries or B9852MJ Power cable*<br>*: standard accessory | For High and medium voltage measurement<br>•Useful for high and medium voltage differential measurements<br>•1/10, 1/100 (switchable)   |
| 700925 | DC to 15 MHz(-3dB)  | 1/10, 1/100       | ±500 V(DC+ACpeak)                    | ±1000 V(DC+ACpeak)    | AA batteries or B9852MJ Power cable*<br>*: sold separately    | For medium voltage measurement  |
| 701922 | DC to 200 MHz(-3dB) | 1/10 (fixed)      | ±20 V(DC+ACpeak)                     | ±60 V(DC+ACpeak)      | Power supply cable  | For medium speed signal measurement<br>•For CAN bus signal measurement<br>•Sensor signal measurement for automobile development   |
| 701920 | DC to 500 MHz(-3dB) | 1/10 (fixed)      | ±12 V(DC+ACpeak)                     | ±40 V(DC+ACpeak)      | Power supply cable  | For high speed signal measurement<br>•For high speed differential measurement such as LVDS<br>•For measuring signals floating from ground in a high-speed digital circuit<br>•Input capacity : 2.5 pF |
| 701923 | DC to 2.0 GHz(-3dB) | 1/10 (fixed)      | ±5 V(DC+ACpeak)                      | ±25 V(DC+ACpeak)      | DL9000 probe I/F  | •For high speed differential measurement such as LVDS<br>•System measurements up to 1.5 GHz BW with DL9200  |

■The max. current consumption of all the above differential probes is ±125 mA. Make sure that the total current consumption of the probes does not exceed the DL's probe power rating.  
 ■See the following web site for details. <http://www.yokogawa.com/tm/probe/>

# Passive Probes, FET Probe and Active Probes

Using an active probe or FET probe is an effective way to measure high speed signals. Even when using a passive probe, you can effectively reproduce waveforms with less ringing or overshoot by devising different ways to connect to ground. In addition to a variety of passive probes, Yokogawa offers a library of miniature probes, high voltage probes, FET probes, and active probes.

## 700960

### 200 MHz Passive Probe



For the DL1600 series  
1.5 m long

## 700988

### 400 MHz Passive Probe



For the DL1700E, 7400 series  
1.5 m long  
Standard accessories include:  
Ground lead, Pinchers tip, IC test tip, Ground attachment, Marker tip

## 701943

### 500 MHz Passive Probe



For the DL9000 series  
1.5 m long  
Standard accessories include:  
Ground lead, Pinchers tip, IC test tip, Ground attachment, Marker tip

## 701941/42

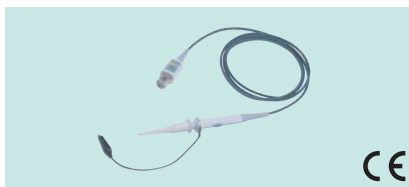
### Miniature passive probe



For DL1700E, 7400 series  
1.2 m long (701941), 3.0 m long (701942)  
Bandwidth: 500 MHz (701941), 350 MHz (701942)

## 701940

### 10:1 Passive Probe for DL750



For the DL750/P and SL1400 module  
1.5 m long  
Standard accessories include:  
Ground lead, Pinchers tip, IC test tip, Ground attachment, Marker tip

## 700929

### 10:1 probe (Safety probe - for use with isolated input modules)



For the DL750/P and SL1400 isolation modules  
1.5 m long

## 701944/45

### 100:1 High voltage probe



1.2 m long (701944), 3.0 m long (701945)  
Bandwidth: 400 MHz (701944), 250 MHz (701945)

## 701974

### 5 GHz Low capacitance probe



Connector type: SMA  
Input resistance: 450 Ω/1 kΩ  
Input capacitance: 0.25 pF/0.4 pF

## 701912/13/14

### Active probe



Bandwidth: 1.0 GHz (701912)  
1.5 GHz (701914)  
2.5 GHz (701913)

## 700939

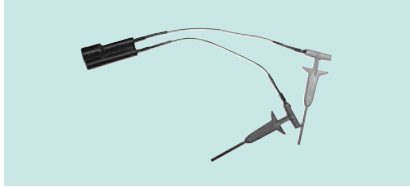
### FET probe



Bandwidth: DC to 900 MHz  
1.5 m long  
50 Ω output

## B9852CR

### Mini clip converter



A clip set designed for the 700988, 700960 and 701940 probes.

## 700971

### Mini clip converter



A clip set designed for 701943 (PB500) and 700939

## 700972

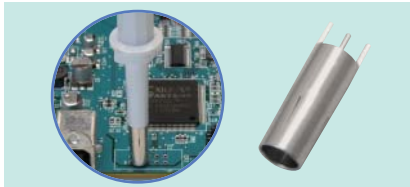
### BNC adapter



For 701943 (PBA500) and 700939

## 366945

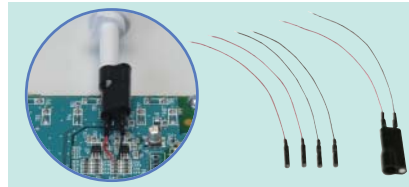
### Printed circuit board adapter



For 701943 (PB500) and 700939  
Order Q'ty: 10 (1 set)

## 366946

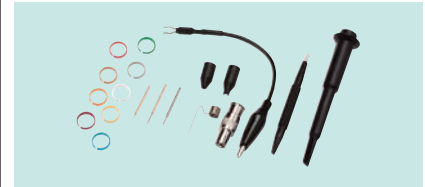
### Solder-in adapter



For 701943 (PB500) and 700939  
Standard accessories include: Adapter, red wire (3), black wire (3)

## B9852HF

### Basic accessories set for the 701941 probe



11 accessories have been included in this set  
(See below \*1).

## Passive Probe Selection Guide

| Model  | Frequency Bandwidth       | Attenuation Ratio | Maximum Input Voltage               | Input Resistance/Capacitance <sup>(*)2)</sup> | Compensation Range <sup>(*)2)</sup> | Cable Length |
|--------|---------------------------|-------------------|-------------------------------------|---|-------------------------------------|--------------|
| 700960 | DC to 200 MHz(-3dB, 1/10) | 1/1 or 1/10       | 600 V(DC+ACpeak)                    | 10 MΩ/14 pF(1/10)                             | 14- 30 pF                           | 1.5 m        |
| 700988 | DC to 400 MHz(-3dB, 1/10) | 1/1 or 1/10       | 600 V(DC+ACpeak)                    | 10 MΩ/14 pF(1/10)                             | 15- 25 pF                           | 1.5 m        |
| 701943 | DC to 500 MHz(-3dB)       | 1/10 (fixed)      | 600 V(DC+ACpeak)                    | 10 MΩ/14 pF(1/10)                             | 15- 25 pF                           | 1.5 m        |
| 701941 | DC to 500 MHz(-3dB)       | 1/10 (fixed)      | 400 Vrms                            | 10 MΩ/10 pF                                   | 10- 25 pF                           | 1.2 m        |
| 701942 | DC to 350 MHz(-3dB)       | 1/10 (fixed)      | 400 Vrms                            | 10 MΩ/18 pF                                   | 7- 25 pF                            | 3 m          |
| 701940 | DC to 10 MHz(-3dB, 1/10)  | 1/1 or 1/10       | 600 V(DC+ACpeak, nonisolated input) | 10 MΩ/22 pF(1/10)                             | 17- 46 pF                           | 1.5 m        |
| 700929 | DC to 100 MHz(-3dB)       | 1/10 (fixed)      | 1000 V(DC+ACpeak, probe itself)     | 10 MΩ/18 pF                                   | 20- 45 pF                           | 1.5 m        |
| 701944 | DC to 400 MHz(-3dB)       | 1/100 (fixed)     | 1000 Vrms                           | 50 MΩ/7.5 pF                                  | 10-50 pF                            | 1.2 m        |
| 701945 | DC to 250 MHz(-3dB)       | 1/100 (fixed)     | 1000 Vrms                           | 50 MΩ/7.5 pF                                  | 10-50 pF                            | 3 m          |
| 701974 | DC to 5 GHz(-3dB, 1/10)   | 1/10, 1/20        | 20 Vrms, 40 VACpeak                 | 500 Ω/0.25 pF, 1 kΩ/0.4 pF                    | —                                   | 1.1 m        |
| 701912 | DC to 1.0 GHz(-3dB)       | 1/10 (fixed)      | ±7 V                                | 100 kΩ/0.9 pF                                 | —                                   | 1.2 m        |
| 701914 | DC to 1.5 GHz(-3dB)       | 1/10 (fixed)      | ±7 V                                | 100 kΩ/0.9 pF                                 | —                                   | 1.2 m        |
| 701913 | DC to 2.5 GHz(-3dB)       | 1/10 (fixed)      | ±7 V                                | 100 kΩ/0.9 pF                                 | —                                   | 1.2 m        |
| 700939 | DC to 900 MHz(-3dB)       | 1/10 (fixed)      | 10 V(DC+ACpeak)                     | 2.5 MΩ/1.8 pF                                 | —                                   | 1.5 m        |

\*1: The B9852HF contains the following eleven(11) kinds of accessories.

(Insulation cap, IC cap, BNC adapter, Rigid tip, Spring tip (Ø: 0.80 mm), Spring tip (Ø: 0.38 mm), Ground spring, Adjustment tool, Pincher tip, Standard ground lead, Color coding rings)

\*2: Input Capacitance: Capacitance at the tip of the probe

Compensation Range: Compensation Range for the input capacitance of the oscilloscope

See the following web site for details of these passive probes. <http://www.yokogawa.com/tm/probe/>

# Logic Probes and Accessories

The DL7400 and DL9700 series let you simultaneously observe multiple signals from analog and logic mixed circuits, in a single instrument. In addition to up to 16 channels of analog inputs, the DL750, DL750P, and SL1400 allow you to observe 16 bit logic signals simultaneously. The following four types of logic probes can be used with these instruments.

## 701980

Logic Probe for DL7400 and DL9700



Maximum toggle frequency: 100 MHz  
Input impedance (typical value): 1 M $\Omega$ /10 pF

## 701981

Logic Probe for DL7400 and DL9700



Maximum toggle frequency: 250 MHz  
Input impedance (typical value): 10 k $\Omega$ /9 pF

## 700986

Logic probe for the DL750/P and SL1400



Non-isolated input  
Two Measurement leads (B9879PX and B9879KX) included.

## 700987

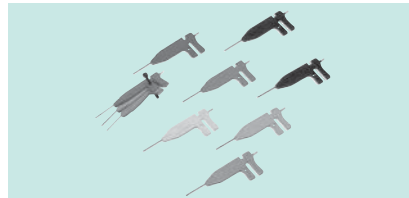
Logic Probe for the DL750/P and SL1400



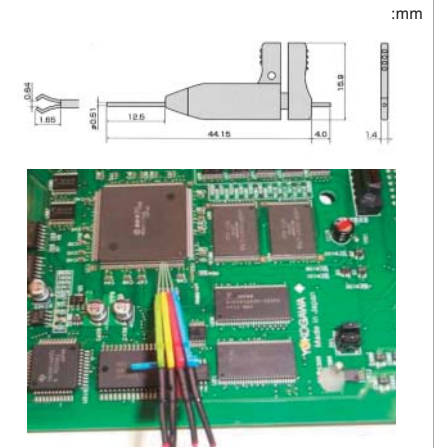
Isolated input  
Use with measurement lead 758917 and 758922, 758929 or 701954 adapter leads (below). 701954 is shown on page 8.

## B9852ES

IC Clip



Attached to the tips of logic probe (701980 or 701981) or mini-clips (B9852CR), the IC clips can be used to clip contiguous 0.5-mm pitch terminals. A total of 10 clips are included.



Combination

Combination

## 758917

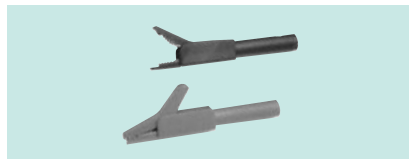
Measurement lead set



A set of 0.8 m long red and black test leads, used in combination with a pair of optional 758922 or 758929 alligator-clip adapters.

## 758922

Small Alligator-clip Adapter



Rated at 300 V. Attaches to the 758917 test leads. Sold in pairs.

## 758929

Large Alligator-clip Adapter



Rated at 300 V. Attaches to the 758917 test leads. Sold in pairs.

## Logic Probe Selection Guide

| Model  | Inputs | Nondestructive Input Voltage Range  | Input Impedance        | Input Voltage Range      | Threshold Level   | External Dimensions       |
|--------|--------|---|------------------------|--------------------------|---|---------------------------|
| 701980 | 8      | $\pm 10$ V  | 1 M $\Omega$ /10 pF    | $\pm 40$ V (DC +ACpeak)  | $\pm 10$ V at 0.1 V resolution                          | 85.7 mm * 64.2 mm * 20 mm |
| 701981 | 8      | $\pm 10$ V  | 10 k $\Omega$ /9 pF    | $\pm 40$ V (DC +ACpeak)  | $\pm 10$ V at 0.1 V resolution                          | 85.7 mm * 64.2 mm * 20 mm |
| 700986 | 8      | $\pm 42$ V (DC +ACpeak)   | Approx. 100 k $\Omega$ | $\pm 42$ V (DC +ACpeak)  | 1.4 V   | 150 mm * 60 mm * 20 mm    |
| 700987 | 8      | DC input: H/L detection for 10 V DC to 250 VDC<br>AC input: H/L detection (50/60 Hz) for 80 V AC to 250 VAC | Approx. 100 k $\Omega$ | 250 Vrms (CAT I, CAT II) | DC input 6 VDC $\pm 50\%$<br>AC input 50 VAC $\pm 50\%$ | 195 mm * 117.3 mm * 45 mm |

## DL750 · DL750P · SL1400 Accessories

### 701955·701956

#### NDIS Bridge Heads



NDIS cable(5 m) included  
Bridge resistance: 120 Ω (701955)  
350 Ω (701956)

### 701957·701958

#### D-sub Bridge Heads



D-sub cable(5 m) included  
Supports Shunt-Cal  
Bridge resistance: 120 Ω (701957)  
350 Ω (701958)

### 700940

#### NDIS Connector Cable



A 1.5 m long connector-to-connector adapter cable complying with NDIS-MIL C26482. Used to connect a MIL-standard cable to the strain module

### A1002JC

#### NDIS Connector



An NDIS connector for direct connection to a strain module.

### 701951

#### Earphone microphone



For recording and playing voice memos

### 701952

#### Speaker cable



For playing voice memos

### 701970

#### DC power cord



For the DC power supply model (/DC).  
Cigarette lighter plug type  
1.8 m long

### 701971

#### DC power cord



For the DC power supply model (/DC).  
Alligator clip type  
1.8 m long

## DL1600 Series Accessories

### 701680

#### Battery Box (only works with - DC model)



Powers instrument for approx. 2 hours  
Charging time: approx. 4.5 hours  
Max. Power consumption: 200 VA

### B8050WP

#### Battery box connection cable



For connection between DL1640 Series and 701680.  
Comes standard with the 701680 battery box.

### A1105JC

#### DC power supply connector

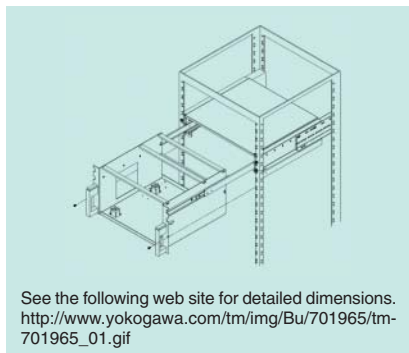


For the DC power supply model (-DC).

## Rack Mount Kit

### 701965

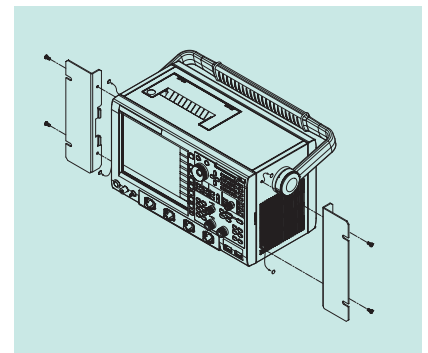
#### Rack mount kit for DL7400 series (for EIA rack)



See the following web site for detailed dimensions.  
[http://www.yokogawa.com/tm/img/Bu/701965/tm-701965\\_01.gif](http://www.yokogawa.com/tm/img/Bu/701965/tm-701965_01.gif)

### 701984-01

#### Rack mount kit for DL9000 series (for EIA rack)



# High-Voltage Measurement Accessories

These accessories enable safe high-voltage measurements when used together with DL750, DL750P and SL1400 isolated input modules. [Note: read the User's Manual carefully before making high-voltage measurements]

## 700929

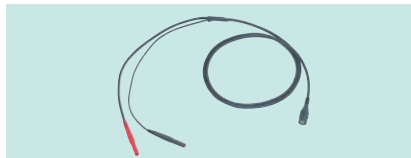
### Isolation Probe



Use with DL750/P and SL1400 isolation modules For High-voltage measurements  
1.5 m long

## 701901

### 1:1 BNC safety adapter cable



1000 Vrms-CAT II, 1.8 m long  
Safety BNC(male) to safety banana(female) use in combination with 701959, 701954, 758921, 758922 or 758929

## 701902-701903

### Safety BNC cable



701902:  
1000 Vrms-CAT II (BNC-BNC), 1 m  
701903:  
1000 Vrms-CAT II (BNC-BNC), 2 m

Small-sized

Large-sized

Combination

For screw terminal

## 701959

### Safety Mini clip(Hook Type)



Set contains one black and one red clip.  
1000 Vrms-CAT II  
It can be connected with 701901.

## 701954

### Alligator clip(Dolphin type)



Set contains one black and one red clip.  
1000 Vrms-CAT II

## 758921

### Fork terminal adapter



Adapters for fitting a 4mm banana plug to a fork terminal. Set contains one black and one red clip.  
1000 Vrms-CAT II

# Cables

## 366924-366925

### BNC cable



A 1 m long (366924) and 2 m long (366925) BNC-BNC cables.  
Use only for circuits having voltage levels no greater than 42 V.

## 366926

### BNC cable



A 1 m long BNC-alligator clip cable.  
Use only for circuits having voltage levels no greater than 42 V.

## 366973

### Go/No-Go Cable



Do not use this cable for purposes other than DL750/1600/1700/7400 GO/NO-GO judgement.  
Used to connect an external device.

| Color  | Pin No. | Signal Name | Logic    |
|--------|---------|-------------|----------|
| Yellow | 2       | START IN    | Negative |
| White  | 3       | GO OUT      | Negative |
| Green  | 4       | NOGO OUT    | Negative |
| Blue   | 5       | GND         |          |

## 366961

### Measurement cable



A subassembly of 1.2 m long test leads with alligator-clip adapters.  
Use only for circuits having voltage levels no greater than 42 V.



# Adapters

## 366921

### Conversion Adapter



BNC-Banana-jack (female) adapter. Use for circuits having voltage levels no greater than 42 V.

## 366922

### Conversion Adapter



Banana-plug (male)-BNC adapter. Use for circuits having voltage levels no greater than 42 V.

## 366923

### T-Adapter



T-adapter for BNC connectors. Use for circuits having voltage levels no greater than 42 V.

## 751512

### Conversion Adapter



Safety-terminal-binding-post adapter. Use for circuits having voltage levels no greater than 42 V.

## 700976

### 50 Ω terminator



Used to connect an oscilloscope having a 1 MΩ input to a probe with a 50-ohm output. Frequency range: DC-500 MHz. Allowable power: 0.5 W.

## 366928

### Conversion Adapter



A BNC (jack)-RCA (plug) adapter. Use for circuits having voltage levels no greater than 42 V.

## 758924

### BNC Adapter



An adapter for fitting a 4 mm wide banana plug to a BNC connector (male).

# Carrying Cases

## 701964

### Soft Carrying Case for DL1600/ DL1700E series



Three pockets are provided for storing accessories and the user's manual. Can store the DC power supply model and the Battery box.

## 701950

### Hard Carrying Case for DL1600/ DL1700E series



Hard type carrying case.

## 700914

### Soft Carrying Case for DL1700E series.



Soft type carrying case.

## 701963

### Soft Carrying Case for DL750/ DL9200



Three pockets are provided for storing accessories and the user's manual.

## 701967

### Soft Carrying Case for DL750P/ SL1400

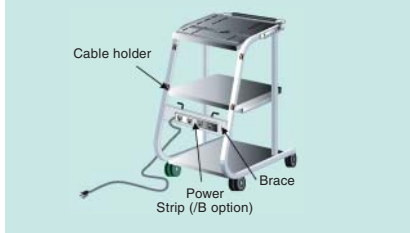


Three pockets are provided for storing accessories.

# Instrument Carts

We offer compact, deluxe and all-purpose instrument cars to meet your needs.

## 701960

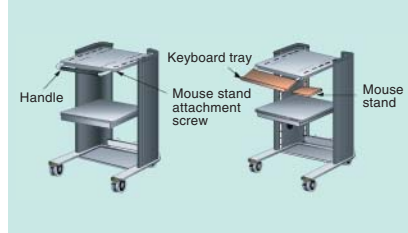


Compact Instrument Cart  
500 mm (W) × 560 mm (D) × 705 mm (H)  
/A option: keyboard, mouse table  
/B option: comes with a 3-prong power strip

### Specifications

Upper shelf angle:  
Horizontal or approximately 18°  
Outer (maximum) dimensions:  
500 mm (W) × 560 mm (D) × 705 mm (H)  
Upper shelf dimensions:  
450 mm (W) × 450 mm (D) × 25 mm (H)  
Middle/lower shelf dimensions:  
450 mm (W) × 450 mm (D) × 25 mm (H)  
Space between middle and upper shelves: 300 mm  
Space between middle and lower shelves: 240 mm  
(without accessory tray)  
Maximum load (per shelf): 20 kg  
Cart weight: 21 kg

## 701961

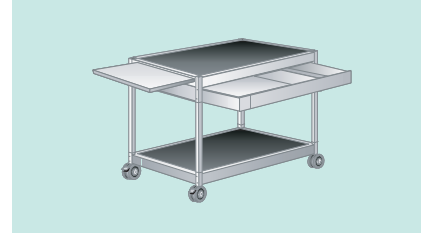


Deluxe Instrument Cart  
570 mm (W) × 580 mm (D) × 839 mm (H)  
/A option: keyboard, mouse table  
/B option: comes with a 3-prong power strip

### Specifications

Shelf position:  
Adjustable to any position using screw holes  
Outer (maximum) dimensions:  
570 mm (W) × 580 mm (D) × 839 mm (H)  
Upper shelf dimensions:  
450 mm (W) × 450 mm (D) × 35 mm (H)  
Lower shelf dimensions:  
450 mm (W) × 450 mm (D) × 35 mm (H)  
Space between upper and lower shelves:  
Depends on position of shelves  
Maximum load (per shelf): 50 kg  
Cart weight: 25 kg

## 701962



All-Purpose Instrument Cart  
467 mm (W) × 693 mm (D) × 713 mm (H)

### Specifications

Outer (maximum) dimensions:  
467 mm (W) × 693 mm (D) × 713 mm (H)  
Upper/lower shelf dimensions:  
457 mm (W) × 683 mm (D)  
Drawer:  
610 mm (W) × 380 mm (D)  
Slide-out table:  
380 mm (W) × 440 mm (D)  
Casters:  
100 mm diameter wheels (front casters with stoppers)  
Maximum load (per shelf): 50 kg  
Cart weight: 23.5 kg

# Printer Paper

## B9850NX

DL Printer Paper



For the DL1600, DL1700E, DL7400 series  
Paper width: 112 mm  
Paper length: 30 m  
Order Q'ty: 5 (1set)

## B9988AE

DL Printer Paper



For the DL750, DL9000 series  
Paper width: 112 mm  
Paper length: 10 m  
Order Q'ty: 10 (1set)

## 701966

DL Printer Paper



For the DL750P, SL1400  
Paper width: 210 mm  
Paper length: 20 m  
Order Q'ty: 6 (1set)

# Probe Stand

## 701919

Probe Stand

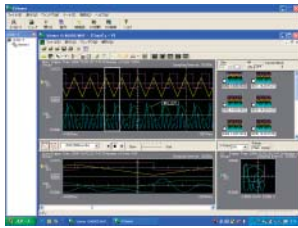


Diameter of attachable probe: ø8 to 13 mm  
Weight: Approx. 1.5 kg

# Software

## 701992

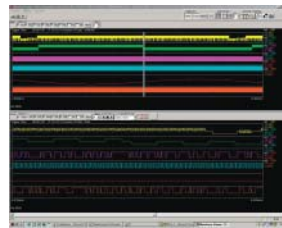
### Xviewer



Xviewer allows you to view and analyze waveform data that has been obtained and saved using either the DL series.

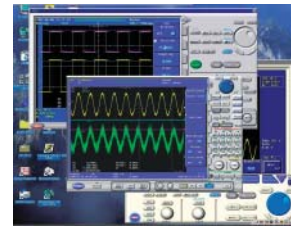
## 700919

### Waveform Viewer for DL series



Waveform Viewer lets you view waveforms on your PC, just as you view them on the DL Series instrument.

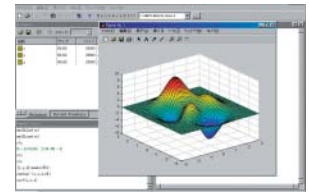
## Wirepuller



Wirepuller displays an image of the front panel DL Series on your PC for monitoring waveform signals. You control the DL Series by simply using your PC's mouse and keyboard to perform actions on the displayed front panel.

## 701991

### MATLAB tool kit



The MATLAB tool kit for DL series is a plug-in for MATALAB software. The toolkit can be used to control supported DL series instruments using MATLAB or to acquire data from the DL series for use in MATLAB via a communication interface (GP-IB, USB, Ethernet).

Visit the following web sites for details about this software:

1. 701992 XViewer  
<http://www.yokogawa.com/tm/701992/>
2. 700919 Waveform Viewer for DL series  
<http://www.yokogawa.com/tm/700919/>
3. Wirepuller  
<http://www.yokogawa.com/tm/wirepuller/>
4. MATLAB tool kit  
<http://www.yokogawa.com/tm/701991/>

## Model Numbers and Suffix Codes

### ■ Current Probes

| Product              | Model Name | Description                      | Order Q'ty |
|----------------------|------------|----------------------------------|------------|
| Current Probe        | 701931     | DC to 2 MHz                      | 1          |
| Current Probe        | 701930     | DC to 10 MHz                     | 1          |
| Current Probe        | 701933     | DC to 50 MHz                     | 1          |
| Current Probe        | 701932     | DC to 100 MHz                    | 1          |
| Power supply         | 701934     | Number of connectors : 4         | 1          |
| Deskew signal source | 701935     | For Power Supply Analysis option | 1          |

### ■ Differential Probes

| Product            | Model Name | Description                   | Order Q'ty |
|--------------------|------------|-------------------------------|------------|
| Differential Probe | 700924     | Max. $\pm 1400$ V/ 100 MHz    | 1          |
| Differential Probe | 701921     | Max. $\pm 700$ V/ 100 MHz     | 1          |
| Differential Probe | 700925     | Max. $\pm 500$ V/ 15 MHz      | 1          |
| Differential Probe | 701922     | Max. $\pm 20$ V/ 200 MHz      | 1          |
| Differential Probe | 701920     | Max. $\pm 12$ V/ 500 MHz      | 1          |
| Differential Probe | 701923     | Max. $\pm 5$ V/ 2 GHz         | 1          |
| Power cable        | B9852MJ    | Supplies power to the DL unit | 1          |

### ■ Passive Probes, FET Probe and Active Probes

| Product                                    | Model Name | Description                                       | Order Q'ty |
|--|------------|---|------------|
| Passive Probe                              | 700960     | 200 MHz bandwidth, 600 V                          | 1          |
| Passive Probe                              | 700988     | 400 MHz bandwidth, 600 V                          | 1          |
| Passive Probe                              | 701943     | 500 MHz bandwidth, 600 V                          | 1          |
| Miniature passive probe                    | 701941     | 500 MHz bandwidth, 400 Vrms, 1.2 m                | 1          |
| Miniature passive probe                    | 701942     | 350 MHz bandwidth, 400 Vrms, 3.0 m                | 1          |
| Passive Probe                              | 701940     | 10 MHz bandwidth, 600 V                           | 1          |
| 10:1 probe                                 | 700929     | 100 MHz bandwidth isolation probe                 | 1          |
| High voltage probe                         | 701944     | 400 MHz bandwidth, 1,000 Vrms, 1.2 m              | 1          |
| High voltage probe                         | 701945     | 250 MHz bandwidth, 1,000 Vrms, 3.0 m              | 1          |
| Low capacitance probe                      | 701974     | 5 GHz bandwidth, 500/1 k $\Omega$ input impedance | 1          |
| Active probe                               | 701912     | 1.0 GHz bandwidth, 7 V                            | 1          |
| Active probe                               | 701914     | 1.5 GHz bandwidth, 7 V                            | 1          |
| Active probe                               | 701913     | 2.5 GHz bandwidth, 7 V                            | 1          |
| FET probe                                  | 700939     | 900 MHz bandwidth, 10 V                           | 1          |
| Mini clip converter                        | B9852CR    | For 700988/700960/701940 probes                   | 1          |
| Mini clip converter                        | 700971     | For 701943 and 700939                             | 1          |
| BNC Adapter                                | 700972     | For 701943 and 700939                             | 1          |
| Printed circuit board adapter              | 366945     | For 701943 and 700939                             | 10(1set)   |
| Solder-in adapter                          | 366946     | For 701943 and 700939                             | 1          |
| Basic accessories set for the 701941 probe | B9852HF    | 11 accessories have been included                 | 1          |

### ■ Logic Probes

| Product                      | Model Name | Description                           | Order Q'ty |
|------------------------------|------------|---------------------------------------|------------|
| Logic Probe                  | 701980     | Maximum toggle frequency : 100 MHz    | 1          |
| Logic Probe                  | 701981     | Maximum toggle frequency : 250 MHz    | 1          |
| Logic Probe                  | 700986     | For DL750/P and SL non-isolated input | 1          |
| Logic Probe                  | 700987     | For DL750/P and SL isolated inputs    | 1          |
| IC Clip                      | B9852ES    | For contiguous 0.5-mm pitch terminals | 1          |
| Measurement lead set         | 758917     | For 700987 Isolated logic probe       | 1          |
| Small Alligator-clip Adapter | 758922     | 300 Vrms-CAT II                       | 1          |
| Large Alligator-clip Adapter | 758929     | 1000 Vrms CAT II                      | 1          |

## DL750/P • SL1400 Accessories

| Product              | Model Name | Description                           | Order Q'ty |
|----------------------|------------|---------------------------------------|------------|
| Bridge Head          | 701955     | NDIS cable(5 m) included, 120 Ω       | 1          |
| Bridge Head          | 701956     | NDIS cable(5 m) included, 350 Ω       | 1          |
| Bridge Head          | 701957     | D-sub cable(5 m) included, 120 Ω      | 1          |
| Bridge Head          | 701958     | D-sub cable(5 m) included, 350 Ω      | 1          |
| NDIS Connector Cable | 700940     | NDIS-MIL conversion, 1.5 m long       | 1          |
| NDIS Connector       | A1002JC    | For the Strain module                 | 1          |
| Earphone microphone  | 701951     | For recording and playing voice memos | 1          |
| Speaker cable        | 701952     | For playing voice memos               | 1          |
| DC power cord        | 701970     | Cigarette lighter plug type           | 1          |
| DC power cord        | 701971     | Alligator clip type                   | 1          |

## DL1600 Series Accessories

| Product                      | Model Name | Description  | Order Q'ty |
|------------------------------|------------|--|------------|
| Battery Box                  | 701680     | For DL1600 series                                  | 1          |
| Battery box connection cable | B8050WP    | For connection between DL1640 Series and 701680    | 1          |
| DC power supply connector    | A1105JC    | For the DL1640 Series DC power supply model (-DC). | 1          |

## Rack mount kit

| Product        | Model Name | Description                      | Order Q'ty |
|----------------|------------|----------------------------------|------------|
| Rack mount kit | 701965     | For DL7400 series (for EIA rack) | 1          |
| Rack mount kit | 701984     | For DL9000 (for EIA rack)        | 1          |

## High-Voltage Measurement Accessories

| Product                      | Model Name | Description                                   | Order Q'ty |
|------------------------------|------------|---|------------|
| Isolation Probe              | 700929     | For DL750/P and SL isolation module           | 1          |
| 1:1 BNC safety adapter cable | 701901     | 1000 Vrms-CAT II, A1.8 m long                 | 1          |
| Safety Mini clip(Hook Type)  | 701959     | A set of brack and red clip, 1000 Vrms-CAT II | 1          |
| Alligator clip(Dolphin type) | 701954     | A set of brack and red clip, 1000 Vrms-CAT II | 1          |
| Fork terminal adapter        | 758921     | A set of brack and red clip, 1000 Vrms-CAT II | 1          |
| Safety BNC cable             | 701902     | 1000 Vrms, 1 m long                           | 1          |
| Safety BNC cable             | 701903     | 1000 Vrms, 2 m long                           | 1          |

## Cables

| Product           | Model Name | Description   | Order Q'ty |
|-------------------|------------|---|------------|
| BNC cable         | 366924     | 1 m long  | 1          |
| BNC cable         | 366925     | 2 m long  | 1          |
| BNC cable         | 366926     | A 1 m long BNC-alligator clip cable                                 | 1          |
| GO/NO-GO Cable    | 366973     | For GO/NO-GO judgement.   | 1          |
| Measurement cable | 366961     | A subassembly of 1.2 m long test leads with alligator-clip adapters | 1          |

## Adapters

| Product            | Model Name | Description                          | Order Q'ty |
|--------------------|------------|--------------------------------------|------------|
| Conversion Adapter | 366921     | BNC-Banana-jack (female) adapter     | 1          |
| Conversion Adapter | 366922     | Banana-plug (male)-BNC adapter       | 1          |
| T-Adapter          | 366923     | T-adapter for BNC connectors         | 1          |
| Conversion Adapter | 751512     | Safety terminal-binding post adapter | 1          |
| 50 Ω terminator    | 700976     | Feed-through type                    | 1          |
| Conversion Adapter | 366928     | A BNC (jack)-RCA (plug) adapter      | 1          |
| BNC Adapter        | 758924     | BNC-banana jack(female) adapter      | 1          |

## Carrying Cases

| Product            | Model Name | Description                   | Order Q'ty |
|--------------------|------------|-------------------------------|------------|
| Soft Carrying Case | 701964     | For the DL1600/DL1700E series | 1          |
| Hard Carrying Case | 701950     | For the DL1600/DL1700E series | 1          |
| Soft Carrying Case | 700914     | For the DL1700E series        | 1          |
| Soft Carrying Case | 701963     | For the DL750/DL9200          | 1          |
| Soft Carrying Case | 701967     | For the DL750P, SL1400        | 1          |

## Instrument Carts

| Product         | Model Name | Description                 | Order Q'ty |
|-----------------|------------|-----------------------------|------------|
| Instrument Cart | 701960     | Compact Instrument Cart     | 1          |
|                 | /A         | keyboard, mouse table       |            |
|                 | /B         | 3-prong power strip         |            |
| Instrument Cart | 701961     | Deluxe Instrument Cart      | 1          |
|                 | /A         | keyboard, mouse table       |            |
|                 | /B         | 3-prong power strip         |            |
| Instrument Cart | 701962     | All-Purpose Instrument Cart | 1          |

## Printer Paper

| Product       | Model Name | Description                     | Order Q'ty |
|---------------|------------|---------------------------------|------------|
| Printer paper | B9850NX    | For the DL1600, DL1700E, DL7400 | 5(1set)    |
| Printer paper | B9988AE    | For the DL750, DL9000           | 10(1set)   |
| Printer paper | 701966     | For the DL750P, SL1400          | 6(1set)    |

## Probe stand

| Product     | Model Name | Description                   | Order Q'ty |
|-------------|------------|-------------------------------|------------|
| Probe stand | 701919     | Attachable probe: ø8 to 13 mm | 1          |

## Software

| Product                       | Model Name  | Description                            | Order Q'ty |
|-------------------------------|-------------|--|------------|
| Xviewer                       | 701992-SP01 | 1 License                              | 1          |
| Xviewer                       | 701992-GP01 | Math function 1 license                | 1          |
| Waveform Viewer for DL series | 700919      | For the DL1600, DL1700E, DL7400 series | 1          |
| Wirepuller                    | -           | Free Software                          | -          |
| MATLAB tool kit               | 701991      | plug in software for the MATLAB        | 1          |

## Front Panel Protective Covers

| Product                      | Model Name | Description                              | Order Q'ty |
|------------------------------|------------|--|------------|
| Front Panel Protective Cover | B9989FA    | A transparent cover for the DL1700E/1600 | 1          |
| Front Panel Protective Cover | B8023EA    | A transparent cover for the DL750        | 1          |
| Front Panel Protective Cover | B8051DP    | A transparent cover for the DL7400       | 1          |
| Front Panel Protective Cover | B8080EM    | A transparent cover for the DL9000       | 1          |

## Soft Case

| Product   | Model Name | Description                 | Order Q'ty |
|-----------|------------|-----------------------------|------------|
| Soft Case | B9918EZ    | For the DL1600,1700E series | 1          |
| Soft Case | B9946EB    | For the DL750/P and SL1400  | 1          |
| Soft Case | B9969ET    | For the DL7400 series       | 1          |
| Soft Case | B8080FQ    | For the DL9000 series       | 1          |

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