

## Specifications

### Frequency Range and Attenuation

Instrument	Frequency Range	Attenuation
8494G	dc to 4 GHz	0 dB to 11 dB in 1 dB steps
8494H	dc to 18 GHz	0 dB to 11 dB in 1 dB steps
8495G	dc to 4 GHz	0 dB to 70 dB in 10 dB steps
8495H	dc to 18 GHz	0 dB to 70 dB in 10 dB steps
8496G	dc to 4 GHz	0 dB to 110 dB in 10 dB steps
8496H	dc to 18 GHz	0 dB to 110 dB in 10 dB steps

### Attenuation Accuracy (dB): (Referenced from 0 dB)

8494G/H		8495G/H 8496G/H		8494G	8494H			8495G	8495H			8496G	8496H		
Attenuation Selection (dB)				dc-4 GHz	dc-12.4 GHz	12.4-18 GHz	dc-4 GHz	dc-12.4 GHz	12.4-18 GHz	dc-4 GHz	dc-12.4 GHz	12.4-18 GHz	dc-4 GHz	dc-12.4 GHz	12.4-18 GHz
1	10			0.2	0.3	0.7	0.2	0.5	0.6	0.2	0.5	0.6	0.2	0.5	0.6
2	20			0.2	0.3	0.7	0.4	0.7	0.8	0.4	0.7	0.8	0.4	0.7	0.8
3	30			0.3	0.4	0.7	0.5	0.9	1.2	0.5	0.9	1.2	0.5	0.9	1.2
4	40			0.3	0.4	0.7	0.7	1.2	1.6	0.7	1.2	1.6	0.7	1.2	1.6
5	50			0.3	0.5	0.7	0.8	1.5	2.0	0.8	1.5	2.0	0.8	1.5	2.0
6	60			0.3	0.5	0.8	1.0	1.8	2.4	1.0	1.8	2.4	1.0	1.8	2.4
7	70			0.4	0.6	0.8	1.2	2.1	2.8	1.2	2.1	2.8	1.2	2.1	2.8
8	80			0.4	0.6	0.8	-	-	-	1.3	2.4	3.2	1.3	2.4	3.2
9	90			0.4	0.6	0.8	-	-	-	1.5	2.7	3.6	1.5	2.7	3.6
10	100			0.4	0.6	0.9	-	-	-	1.6	3.0	4.0	1.6	3.0	4.0
11	110			0.5	0.7	0.9	-	-	-	1.8	3.3	4.4	1.8	3.3	4.4

**Maximum SWR**

Instrument	Frequency Range (GHz)	Maximum SWR
8495G	dc to 4	1.35
8495H	dc to 8	1.35
	8 to 12.4	1.5
	12.4 to 18	1.7
8494G, 8496G	dc to 4	1.5
8494H, 8496H	dc to 8	1.5
	8 to 12.4	1.6
	12.4 to 18	1.9

**Maximum Residual Attenuation**

Instrument	Maximum Residual Attenuation
8494G, 8494H	0.6 dB + 0.09 dB/GHz
8495G, 8495H	0.4 dB + 0.07 dB/GHz
8496G, 8496H	0.6 dB + 0.09 dB/GHz

**Attenuation Repeatability**

0.01 dB typical after 5 million cycles

**RF Power Handling Capability**

1 W average, 100 W peak with maximum pulse width of 10 microseconds (all models)

**Solenoid Drive**

Solenoids Drive	Coil Voltage	Switching Current
All models (approximately)	20 to 30 Vdc	125 mA <sup>1</sup> at 24V (190Ω, 65mH)

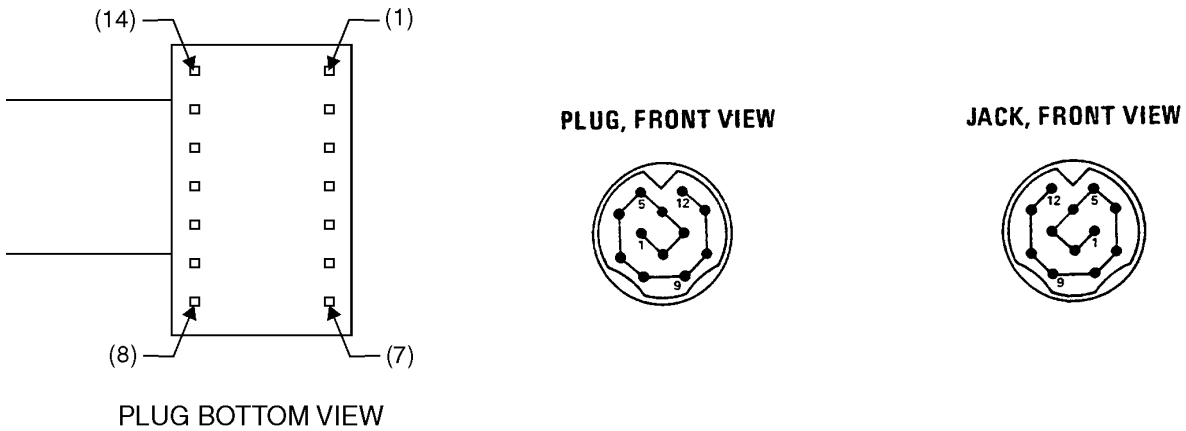
1. For serial number prefixes below 1722S, change 125mA to 110mA.

## Specifications

### Solenoid Cable Connector Refer also to [Figure 3](#).

Section	Section 1		Section 2		Section 3		Section 4		Power
Solenoid Coil	Thru-Line	Atten Card	Thru-Line	Atten Card	Thru-Line	Atten Card	Thru-Line	Atten Card	V+
Cable Wire Color Code <sup>1</sup>	PUR	YEL	BLK	GRN	ORN	BLU	BRN	WHT	RED
Connector Plug Pin Number <sup>2</sup>	5	6	7	8	9	10	11	12	1
8494G/H	0dB	1dB	0dB	2dB	0dB	4dB	0dB	4dB	-
8495G/H	0dB	10dB	0dB	20dB	0dB	40dB	-	-	-
8496G/H	0dB	10dB	0dB	20dB	0dB	40dB	0dB	40dB	-
Option 016 Flat Pack Plug Pin Number <sup>3</sup>	13	2	11	5	3	9	4	10	6

1. Five-foot cable and mating plug assembly provided.
2. Pin 1 Common solenoid drive (+24 Vdc).
3. Pin 6 is common for all coils. Pins 1, 7, 8, 12 and 14 are not used.



**Figure 3 Solenoid Cable Pin Configuration**

**Minimum Life** >5 million cycles per section

**Switching speed** Maximum 20 milliseconds including settling time.

**Environment Limits** The instrument should be stored in a clean, dry environment. The following environmental limits apply to storage and shipment, and operation.

Characteristic	Storage and Shipping Value	Operating Value
Temperature	-40 to +75 °C	0 to +55 °C
Humidity	< 95% relative	< 95% relative
Altitude	< 7600 m (25000 ft)	< 4600 m (15000 ft)

### Physical Characteristics

Instrument	Dimensions <sup>1</sup> (depth x width x height)	Weight <sup>2</sup>
8494G/H	6.25 in x 2.875 in x 1.6875 in	16 oz
8496G/H	159 mm x 73 mm x 43 mm	454 g
8495G/H	5.125 in x 2.875 in x 1.6875 in	12 oz
	130 mm x 73 mm x 43 mm	340 g

1. Dimensions are for general information only. If dimensions are required for building special enclosures, contact your Agilent field engineer.
2. Weight and width of the instrument varies with the option selected due to the type of connectors.