

Dual Trace Oscilloscope 580849 (797-20)

FESTO

LabVolt Series

Datasheet



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General Description

The Dual Trace Oscilloscope is an economical and highly reliable solid-state instrument, ideal for general-purpose use in laboratory and training applications. Students can measure phase difference between waveforms using the X-Y operation mode, and video signals can be measured quickly with the special TV sync separation circuit. The Dual Trace Oscilloscope includes CH 1, CH 2, CHOP, and ALT display modes. An operating instruction manual, one fuse, one line cord, and two low-capacitance probes are provided with the oscilloscope.

Features & Benefits

- 15 cm (6 inch) width, high luminance CRT with internal graticule, 8 x 10 divisions
- Wide dynamic range even at high frequencies of -3 dB
- Fast rise time with low overshoot
- Flat frequency response up to half of -3 dB frequency
- Alternate and chopping display
- Polarity inversion and algebraic sum of CH1 and CH2
- Maximum sweep rates of 20 ns/div.
- Variable scale illumination
- Delayed sweep function with minimum delay time jitter of 1/20,000 or less
- Jitterless and superb trigger sensitivity
- TV sync separation and hold-off circuit useful for video signal observation
- Brightness modulation available with Z-axis input
- Low drift with compensation circuitry
- Signal delay with delay line useful for observation of signal leading edge
- X-Y phase difference measurement up to 50 kHz

Specifications

Parameter	Value
Power Requirements	
Current	0.4 A
Service Installation	Standard single-phase ac outlet
CRT Display	
Type	15.24 cm (6 in) rectangular, internal graticule, scale illumination
Effective Area	8 x 10 div (1 div = 1 cm)
Acceleration Potential	12 kV
Vertical Deflection	
Sensitivity	5 mV/div to 5 V/div in 10 calibrated steps $\pm 3\%$ 1 mV/div to 1 V/div $\pm 5\%$ when using x5 magnifier Uncalibrated continuous control between steps 1:2.5
Bandwidth	DC to 40 MHz (-3 dB); dc to 7 MHz (-3 dB) when using x5 magnifier
Rise Time	Less than 8.8 ns
Maximum Input	300 V (dc + ac peak) or 500 V p-p ac at 1 kHz or less
Input Coupling	AC, GND, DC
Input Impedance	1 meg in parallel with 25 pF
Operating Modes	CH1, CH2 (INVERT), ADD, DUAL (CHOP: Time/div sw 0.2 s - 5 ms; ALT: Time/div sw 2 ms - 0.2 μ s)
X-Y Operation	CH1: X-axis, CH2: Y-axis
Horizontal Deflection	
Display	A, A int B, B, B triggered, X-Y
Time Base A	0.2 μ s/div to 0.2 s/div in 19 calibrated steps $\pm 3\%$ uncalibrated continuous control between steps at least 1:2.5

Parameter	Value
Time Base B	0.2 μ s/div to 20 μ s/div in 7 calibrated steps \pm 3%
Trigger	
Modes	Auto, Norm, TV-V, TV-H
Coupling	AC
Sources	CH 1, CH 2, LINE, EXT
Sensitivity (Internal Source)	0.5 div (20 Hz to 2 MHz), 1.5 div (2 MHz to 40 MHz)
Sensitivity (External Source)	200 mV (20 Hz to 2 MHz), 800 mV (2 MHz to 20 MHz)
Slope	+ or -
TV Sync	Polarity: TV (-)
Calibrator	1 kHz, square wave, 0.5 \pm 3%, duty cycle: 50%
Accessories	Power cable, fuse, operation manual, 2 probes
Physical Characteristics	
Dimensions (H x W x D)	140 x 320 x 430 mm (5.5 x 12.6 x 16.9 in)
Net Weight	5.7 kg (12.57 lb)

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