

MSW Mini Switcher Series

COMPOSITE VIDEO, S-VIDEO, AND SDI SWITCHERS



MSW 4V rs



MSW 4SV rs



MSW 4V SDI rs

- Three models available
 - Composite
 - S-video
 - SDI - Serial Digital Interface
- Two buffered outputs
- Choice of control for ease of integration
 - RS-232 Serial
 - Front panel
 - Contact Closure
 - Auto Switching
- S-video and composite video output on S-video model; built in encoder for S-video model
- Rack-mountable 1U, quarter rack width metal enclosure
- External international power supply included

The Extron MSW - Mini Switcher Series is a family of compact four input, two parallel output switchers for composite video, S-video, and SDI video sources. The MSW Series is designed for easy integration in a variety of applications, including classrooms, conference rooms, video production facilities, or anywhere compact video signal switching is required.



Extron® Electronics

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DESCRIPTION

The Extron **MSW Series** comprises four input, active mini switchers for switching composite video, S-video, and SDI video signals. All three models include two parallel outputs which simplify video system designs by eliminating the need for a separate video distribution amplifier. The MSW 4SV rs model, for S-video sources, features a built-in video encoder for simultaneous output of S-video and composite video. The MSW 4V SDI features two relocked SDI - Serial Digital Outputs that comply with the SMPTE 259M digital video standard.

All MSW models are equipped with front panel, contact closure, and RS-232 serial control. In addition, the switchers can be set for input auto-switching for use in unattended system applications. They are housed in a durable, 1U one-quarter rack width metal enclosure and include an external, international power supply.

FEATURES

- **Inputs** – Four composite video – MSW 4V rs, S-video – MSW 4SV rs, or serial digital component video – MSW 4V SDI rs.
- **Dual Parallel Outputs** – All MSW rs models feature two parallel outputs. The MSW 4SV rs has one S-video and one composite video output. The MSW 4V SDI rs has two relocked SMPTE-259 serial digital video outputs.
- **Autoswitching** – Allows any input to be selected automatically when the switcher detects an active source; ideal for automatic routing and unattended operation.
- **RS-232 Control** – Using RS-232 serial commands, systems can be controlled and configured via the Extron Windows®-based control program, or integrated into third-party control systems.
- **Contact closure remote control**
- **External international power supply** - Provides worldwide power compatibility (part # 70-055-01).
- **Rack-mountable** – Each model is housed in a 1U high, quarter rack width metal enclosure.

SPECIFICATIONS

VIDEO — MSW 4V RS, MSW 4SV RS

Gain	Unity
Bandwidth	
MSW 4V	250 MHz (-3 dB)
MSW 4SV	250 MHz (-3 dB)
Crosstalk	<-60 dB @ 3.58 MHz
Switching speed	20 ms (max.)

VIDEO — MSW 4V SDI RS

Resolution.....	8 or 10 bits, automatic
Operation standards	143 Mb/s (4fsc NTSC)
	177 Mb/s (4fsc PAL)
	270 Mb/s (4:2:2) component video
	360 Mb/s (4:2:2) widescreen, autoselect
Equalization and relocking	Automatic for up to -30 dB of cable loss
Automatic data rate clock	Yes

VIDEO INPUT

Number/signal type	
MSW 4V rs	4 composite video
MSW 4SV rs	4 S-video
MSW 4V SDI rs.....	4 serial digital video

SPECIFICATIONS

Connectors	
MSW 4V rs, MSW 4V SDI rs	4 female BNC
MSW 4SV rs	4 female 4-pin mini DIN
Nominal level	1 Vp-p for Y of S-video and for composite video
	0.3 Vp-p for C of S-video
	0.8 Vp-p for SDI
Minimum/maximum levels (MSW 4V rs, MSW 4SV rs)	
	0.4 V to 2.0 Vp-p with no offset
Impedance	75 ohms
Return loss	
MSW 4SV rs	<-25 dB, DC @ 10 MHz
Other models	<-40 dB, DC @ 10 MHz
DC offset (max. allowable).....	5.0 V
Input coupling	
MSW 4V rs, MSW 4SV rs.....	DC
MSW 4V SDI rs.....	AC

VIDEO OUTPUT

Number/signal type	
MSW 4V rs	2 composite video
MSW 4SV rs	1 S-video, 1 composite video
MSW 4V SDI rs.....	2 relocked SMPTE-259 serial digital component video
Connectors	
MSW 4V rs, MSW 4V SDI rs.....	2 BNC female
MSW 4SV rs	1 BNC female, (1) 4-pin mini DIN female
Minimum/maximum levels (MSW 4V rs, MSW 4SV rs)	
	0.4 V to 2.0 Vp-p
Impedance	75 ohms
Return loss	
MSW 4V/4SV rs	<-30 dB @ 5 MHz
MSW 4V SDI rs.....	<-25 dB @ 5 MHz
DC offset	±5 mV maximum with input at 0 offset
Switching type (MSW 4V rs/4SV rs).....	Vertical interval
Jitter (MSW 4V SDI rs).....	<2 µs
Rise/fall time (20-80%, MSW 4V SDI rs) ..	700 ps ±100 ps
Re-clocking (MSW 4V SDI rs).....	Automatic, bypass mode for nonstandard rates

SYNC

Standards	
MSW 4V rs, MSW 4SV rs.....	NTSC 3.58, NTSC 4.43, PAL, SECAM
MSW 4V SDI rs	SMPTE-259M

CONTROL/REMOTE — SWITCHER

Serial control port	1 RS-232, 3.5 mm captive screw connector, 5 pole
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
Contact closure.....	(1) 3.5 mm captive screw connector, 5 pole
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

GENERAL

External power supply	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, regulated
Power input requirements	
MSW 4V rs, MSW 4SV rs.....	12 VDC, 0.2 A
MSW 4V SDI rs.....	12 VDC, 0.4 A
Rack mount	Yes, with optional 1U rack shelf #60-190-01 or 60-190-20
Enclosure type	Metal
Enclosure dimensions	1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide) 4.3 cm H x 10.9 cm W x 6.5 cm D (Depth excludes connectors.)
Shipping weight	3 lbs (2 kg)
Listings	UL, CUL
Compliances.....	CE, FCC Class A, VCCI, AS/NZS, ICES
Warranty	3 years parts and labor
NOTE: All nominal levels are at ±10%.	

Model	Version Description	Part Number
MSW 4V rs	Four Input Composite Video Switcher	60-480-11
MSW 4SV rs	Four Input S-Video Switcher	60-480-12
MSW 4V SDI rs	Four Input SDI Video Switcher.....	60-481-11

Specifications are subject to change without notice.



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