



**FRACARRO**


# Multiswitches



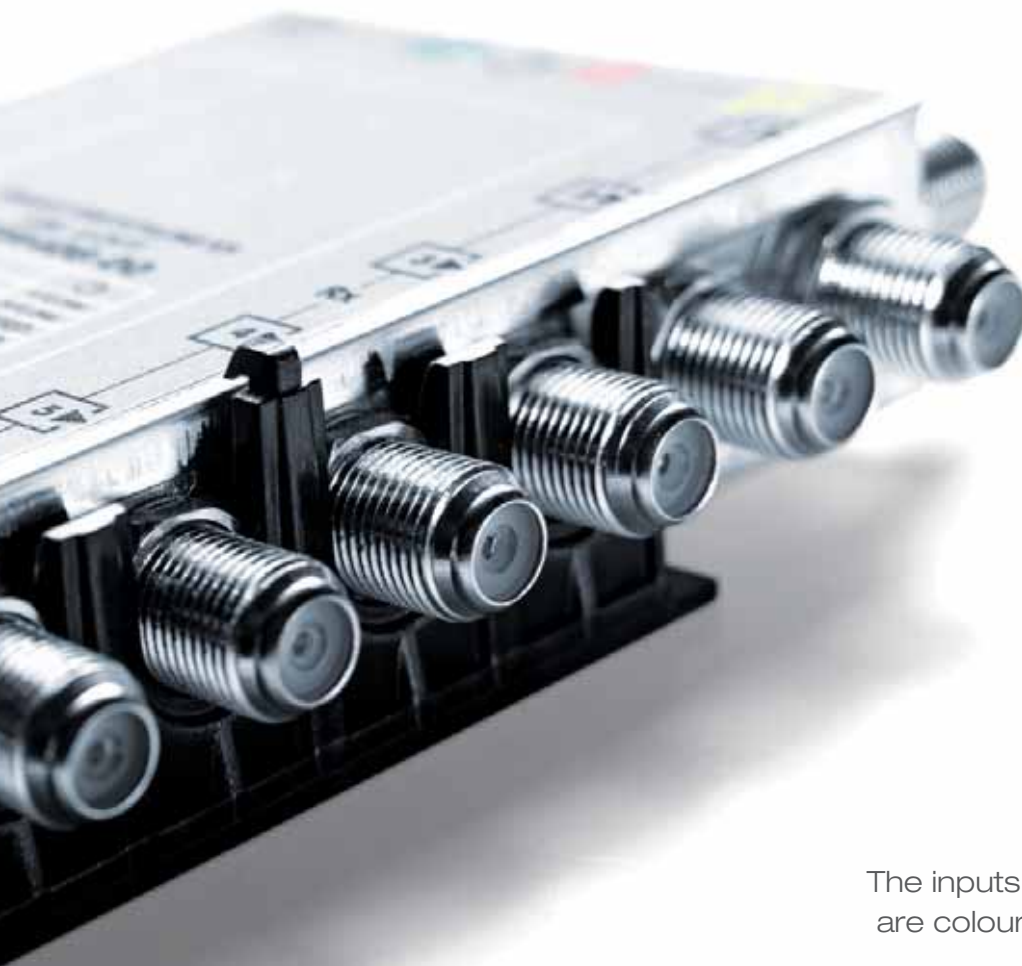
Choose your **solution**



# Description

*SWITCH*  *LINE* is the complete range of multiswitches for the distribution of signals from a headend to multiple outlets. Fracarro has developed over 90 products to offer the best solution for every installation.

The **Compact** and **SCR ranges** are designed for small and medium sized distribution systems and the **Cascadable range** for large distribution systems. They are complemented by a full range of **Accessories**.







The inputs on the front of the switches are colour coded to make connection quick and easy:







- black = vertical low polarisation
- green = horizontal low polarisation
- red = vertical high polarisation
- yellow = horizontal high polarisation
- white = terrestrial band

# Index



## Compact range

Inputs	5	9	17
Active TV	 <p>SWI95.. p. 7</p> <p>SWI45.. p. 8</p>		
Passive TV	 <p>SWI55.. p. 9</p> <p>SWI55..A p. 10</p> <p>SWI5..DC p. 11</p>	 <p>SWI59..S p. 12</p> <p>SWI59..A p. 13</p>	 <p>SWI517..S p. 14</p>

## Cascadable range

Inputs	4	5	9	17
Active TV		 <p>SWI85.. p. 21-22</p>	 <p>SWI89.. p. 26</p>	
Passive TV	 <p>SWI44.. p. 17-18</p>	 <p>SWI35.. p. 19-20</p>	 <p>SWI39.. p. 23</p> <p>SWI39..S p. 25</p>	 <p>SWI317..S p. 27</p>

## SCR

Inputs	4	5
Active TV		 <p>SCR8514 p. 29</p>
Passive TV	 <p>SCR4414 p. 29</p>	

## Accessories

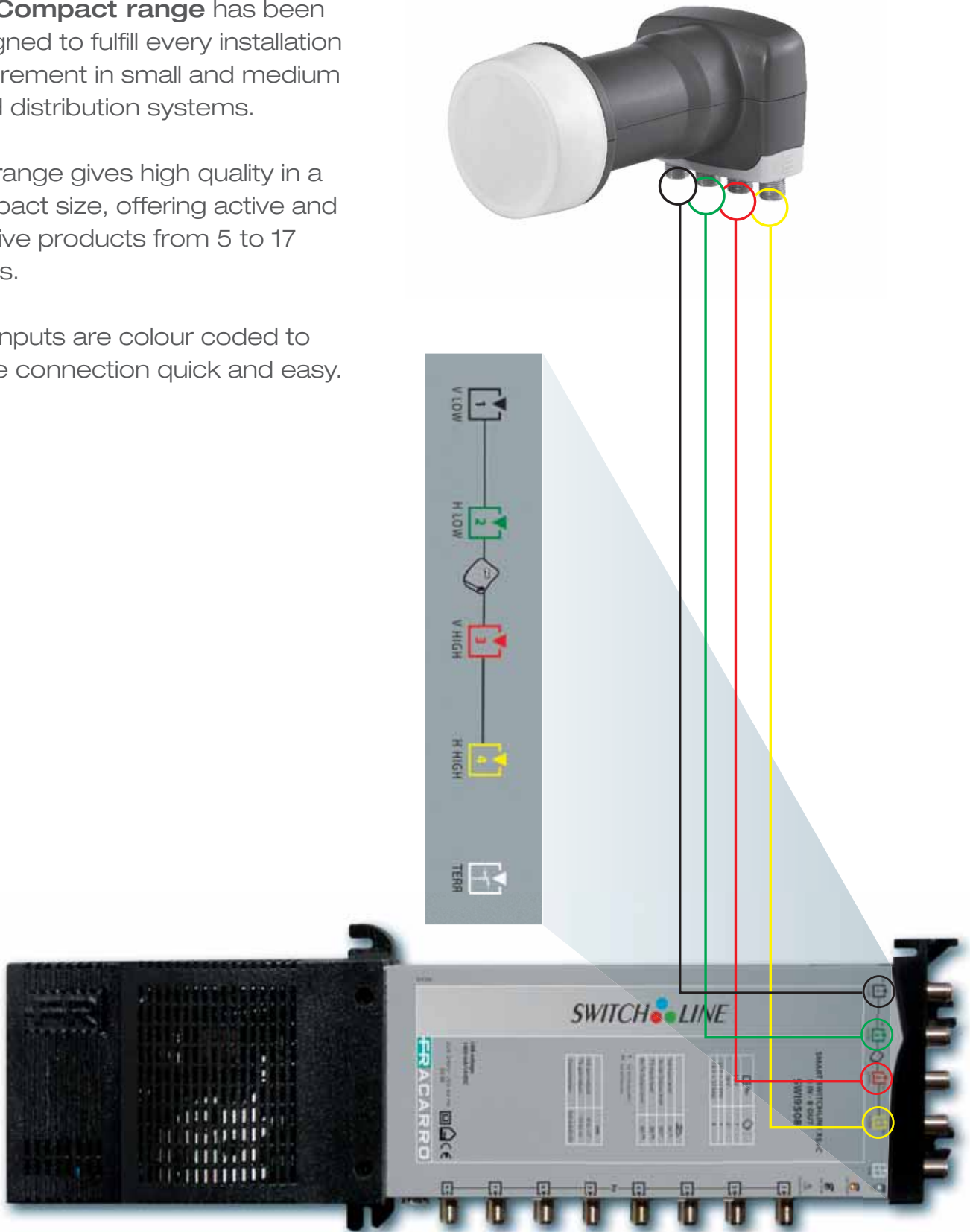
				
<p>AMP92.. p. 31</p>	<p>AMP..S p. 32</p>	<p>SWA5... p. 33</p>	<p>AMP8331A p. 34</p>	<p>AMP2000 p. 34</p>
				
<p>SPS1750 p. 34</p>	<p>SWI4... p. 35</p>	<p>SWI8... p. 35</p>	<p>MiniDiSEqC p. 35</p>	

# Compact range

The **Compact range** has been designed to fulfill every installation requirement in small and medium sized distribution systems.

The range gives high quality in a compact size, offering active and passive products from 5 to 17 inputs.

The inputs are colour coded to make connection quick and easy.



## SWI95.. Series 5 inputs (4 SAT + 1 TV)

**NEW**

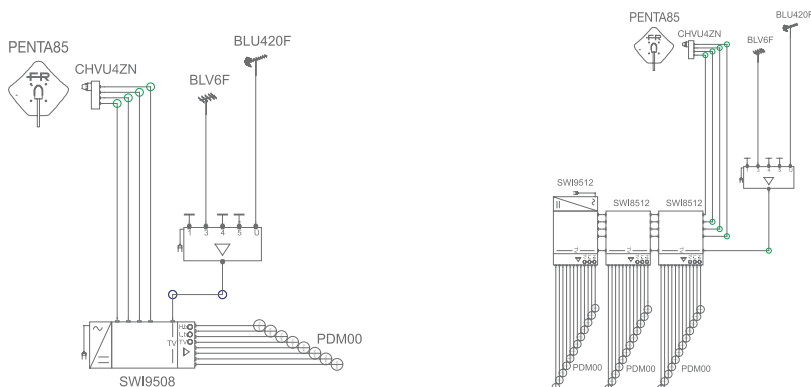


- ▶ TV gain adjustment
- ▶ 2 x Sat gain adjustments (high and low band)
- ▶ Fixed gain on the return path
- ▶ Full HD compliant
- ▶ 2A power supply for mixed systems (like SWI85.. MSW cascadable systems - see example)
- ▶ Standard colour coding for easy installation

### 8, 12, 16 Outputs

Item Code	SWI9508 271109	SWI9512 271110	SWI9516 271111
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	8	12	16
<b>SAT</b>			
Bandwidth	MHz 950-2150	MHz 950-2150	MHz 950-2150
Gain	dB 5 to 10	dB 5 to 10	dB 3 to 9
Gain adjustment	dB 15	dB 15	dB 15
Maximum output level	dBμV 110 (-35dBc 2 tones)	dBμV 110 (-35dBc 2 tones)	dBμV 110 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth	MHz 85-862	MHz 85-862	MHz 85-862
Gain	dB 2 to 5	dB 2 to 5	dB 1 to 4
Gain adjustment	dB 20	dB 20	dB 20
Maximum output level	dBμV 100 (-60dBc 3 tones)	dBμV 100 (-60dBc 3 tones)	dBμV 98 (-60dBc 3 tones)
<b>Return Path</b>			
Bandwidth	MHz 5-65	MHz 5-65	MHz 5-65
Gain	dB 7	dB 7	dB 6
Maximum output level	dBμV 108 (-35dBc 2 tones)	dBμV 108 (-35dBc 2 tones)	dBμV 108 (-35dBc 2 tones)
<b>General Parameters</b>			
LNB power supply	mA 1550	mA 1450	mA 1360
Switching control	V, KHz 14/18, 0/22	V, KHz 14/18, 0/22	V, KHz 14/18, 0/22
Mains voltage	V, Hz 220-240, 50-60	V, Hz 220-240, 50-60	V, Hz 220-240, 50-60
Power consumption	mA 450	mA 550	mA 640
Dimensions	mm 380x127x60	mm 455x127x60	mm 530x127x60
Operating temperature	°C -10 to +55	°C -10 to +55	°C -10 to +55

### Installation Example



\* UK switches: SWI9508/UK code 271106, SWI9512/UK code 271107, SWI9516/UK code 271108

## Multiswitches

# Compact range

## SWI45.. Series

5 inputs (4 SAT + 1 TV)

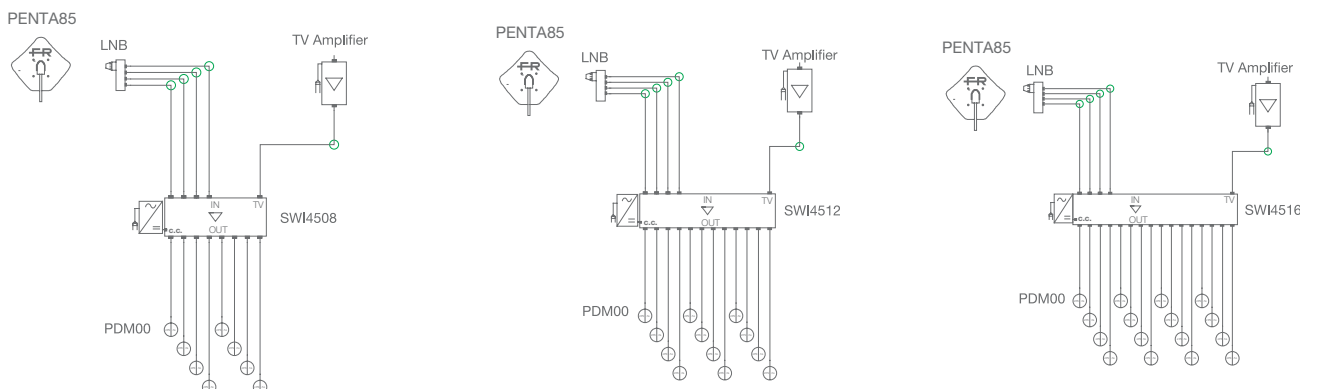
- ▶ Active TV/SAT band
- ▶ Compact size
- ▶ Full HD compliant
- ▶ Return path included
- ▶ Switch mode power supply guarantees high reliability
- ▶ Standard colour coding for easy installation



8, 12, 16 Outputs

Item Code	SWI4508 271101	SWI4512 271102	SWI4516 271103
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	8	12	16
<b>SAT</b>			
Bandwidth	MHz 950-2150	MHz 950-2150	MHz 950-2150
Gain	dB 0	dB 0	dB 0
Maximum output level	dBμV 95 (-35dBc 2 tones)	dBμV 95 (-35dBc 2 tones)	dBμV 95 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth	MHz 85-862	MHz 85-862	MHz 85-862
Gain	dB -4	dB -5	dB -6
Maximum output level	dBμV 95 (-60dBc 3 tones)	dBμV 95 (-60dBc 3 tones)	dBμV 95 (-60dBc 3 tones)
<b>Return Path</b>			
Bandwidth	MHz 5-65	MHz 5-65	MHz 5-65
Gain	dB -16	dB -17	dB -19
Maximum output level	dBμV -	dBμV -	dBμV -
<b>General Parameters</b>			
LNB power supply	mA/V 300/14	mA/V 300/14	mA/V 300/14
Switching control	V, KHz 14/18, 0-22	V, KHz 14/18, 0-22	V, KHz 14/18, 0-22
Mains voltage	V, Hz 220-240, 50-60	V, Hz 220-240, 50-60	V, Hz 220-240, 50-60
Dimensions	mm 245x125x45	mm 325x125x45	mm 405x125x45
Operating temperature	°C -10 to +55	°C -10 to +55	°C -10 to +55

## Installation Example



## SWI55.. Series

### 5 inputs (4 SAT + 1 TV)

- ▶ Active SAT band
- ▶ Compact size
- ▶ Full HD compliant
- ▶ Return path included
- ▶ Switch mode power supply guarantees high reliability
- ▶ Standard colour coding for easy installation

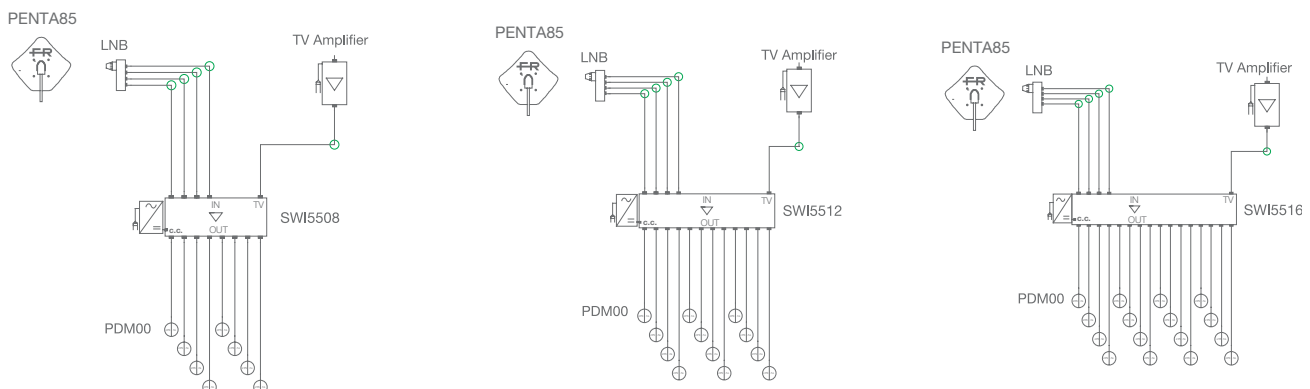


### 8, 12, 16 Outputs

Item Code		SWI5508 271045	SWI5512 271046	SWI5516 271047
Inputs		5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs		8	12	16
<b>SAT</b>				
Bandwidth	MHz	950-2200	950-2200	950-2200
Gain	dB	0	0	0
Maximum output level	dBμV	95 (-35dBc 2 tones)	95 (-35dBc 2 tones)	95 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz	5-862*	5-862*	5-862*
Gain	dB	-16	-17	-19
Maximum output level	dBμV	-	-	-
<b>General Parameters</b>				
LNB power supply	mA/V	300/14	300/14	300/14
Switching control	V, KHz	14/18, 0-22	14/18, 0-22	14/18, 0-22
Mains voltage	V, Hz	220-240, 50-60	220-240, 50-60	220-240, 50-60
Dimensions	mm	245x125x45	325x125x45	405x125x45
Operating temperature	°C	-10 to +55	-10 to +55	-10 to +55

\*Return path included

### Installation Example



## Multiswitches

# Compact range

## SWI55..A Series

### 5 inputs (4 SAT + 1 TV)

- ▶ Active satellite band to guarantee the quality of the satellite signal with long cable drops
- ▶ Dip switch to feed masthead amplifier
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Switch mode power supply guarantees high reliability
- ▶ Standard colour coding for easy installation

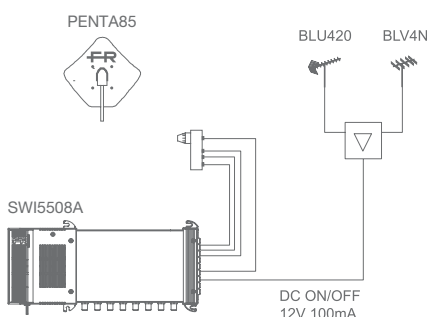


### 6, 8, 12, 16 Outputs

Item Code	SWI5506A 271041	SWI5508A 271042	SWI5512A 271043	SWI5516A 271044
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	6	8	12	16
<b>SAT</b>				
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	+2 to +4 tilted	+2 to +4 tilted	+2 to +4 tilted
Maximum output level	dB $\mu$ V	90 (-35dBc 2 tones)	90 (-35dBc 2 tones)	90 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz	5-862*	5-862*	5-862*
Gain	dB	-16	-17	-20
Maximum output level	dB $\mu$ V	-	-	-
<b>General Parameters</b>				
LNB power supply	mA/V	300/14	300/14	300/14
Switching control	V, KHz	14/18, 0-22	14/18, 0-22	14/18, 0-22
Mains voltage	V, Hz	220-240, 50-60	220-240, 50-60	220-240, 50-60
Power consumption	mA	25	25	25
Dimensions	mm	265x125x65	305x125x65	385x125x65
Operating temperature	°C	-10 to +55	-10 to +55	-10 to +55

\*Return path included

### Installation Example



## SWI5..DC Series 5 inputs (4 SAT + 1 TV)

**NEW**

- ▶ The LNB can be powered from a decoder/receiver
- ▶ 12V automatic circuit to feed a masthead amplifier
- ▶ Return path included
- ▶ Additional connector to feed a high power masthead amplifier
- ▶ Full HD compliant
- ▶ Standard colour coding for easy installation

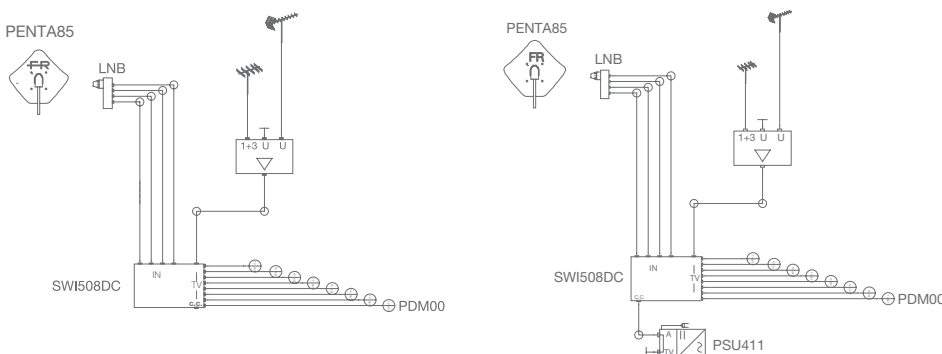


### 8, 16 Outputs

Item Code	SWI508DC 271115	SWI516DC 271117
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	8	16
<b>SAT</b>		
Bandwidth	MHz 950-2150	MHz 950-2150
Gain	dB -2 to +1	dB -2 to +1
Maximum output level	dBμV 105 (-35dBc 2 tones)	dBμV 105 (-35dBc 2 tones)
<b>TV</b>		
Bandwidth	MHz 5-862*	MHz 5-862*
Gain	dB -14	dB -20
<b>General Parameters</b>		
Power consumption	mA 35	mA 35
Dimensions	mm 220x118x30	mm 390x118x30
Operating temperature	°C -10 to +55	°C -10 to +55

\*Return path included

### Installation Example



## Multiswitches

# Compact range

## SWI59..S Series

### 9 inputs (8 SAT + 1 TV)

- ▶ Isolation between outputs >30dB
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Bandwidth up to 2300MHz
- ▶ Standard colour coding for easy installation

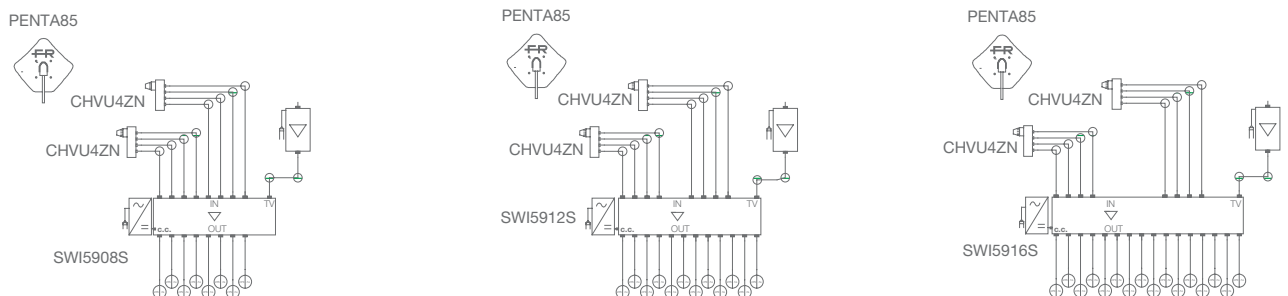


### 6, 8, 12, 16 Outputs

Item Code	SWI5906S 289787	SWI5908S 289788	SWI5912S 289789	SWI5916S 289790
Inputs	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs	6	8	12	16
<b>SAT</b>				
Bandwidth	MHz	950-2300	950-2300	950-2300
Gain	dB	0	-2	-2
Maximum output level	dBμV	95 (-35dBc 2 tones)	95 (-35dBc 2 tones)	95 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz	5-862*	5-862*	5-862*
Gain	dB	-14	-15	-16
Maximum output level	dBμV	-	-	-
<b>General Parameters</b>				
LNB power supply	mA/V	1000/12	1000/12	1000/12
Switching control	V, KHz	14/18, 0/22 DISEqC 2.0	14/18, 0/22 DISEqC 2.0	14/18, 0/22 DISEqC 2.0
Mains voltage	V, Hz	220-240, 50-60	220-240, 50-60	220-240, 50-60
Power consumption	mA	40	40	40
Dimensions	mm	300x105x51	300x105x51	300x195x51
Operating temperature	°C	-20 to +60	-20 to +60	-20 to +60

\*Return path included

### Installation Example



## SWI59..A Series

### 9 inputs (8 SAT + 1 TV)

- ▶ Dip switch for each output to set the main satellite
- ▶ Dip switch to feed masthead amplifier
- ▶ Active satellite band to guarantee the quality of the satellite signal with long cable drops
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Switch mode power supply guarantees high reliability
- ▶ Standard colour coding for easy installation

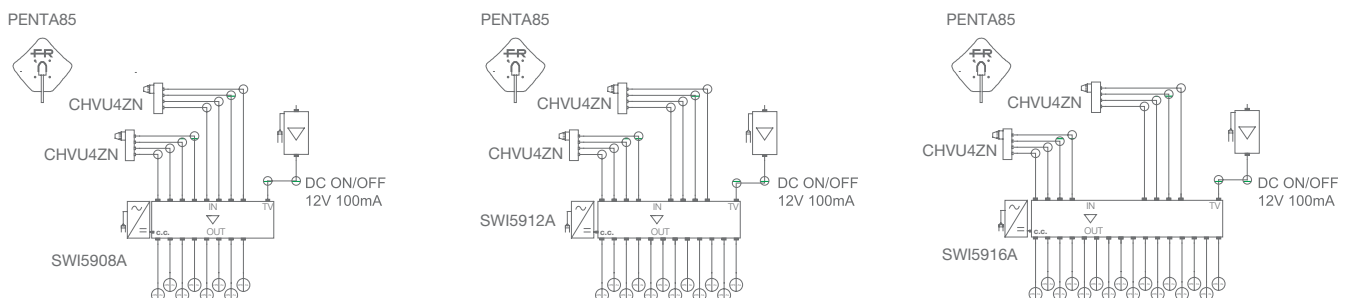


### 8, 12, 16 Outputs

Item Code		SWI5908A 271052	SWI5912A 271053	SWI5916A 271054
Inputs		9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs		8	12	16
<b>SAT</b>				
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	3	2	4
Maximum output level	dBμV	90 (-35dBc 2 tones)	90 (-35dBc 2 tones)	90 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz	5-862*	5-862*	5-862*
Gain	dB	-16	-18	-20
Maximum output level	dBμV	-	-	-
<b>General Parameters</b>				
LNB power supply	mA/V	600/14	600/14	600/14
Switching control	V, KHz	14/18, 0-22 DISEqC 2.0	14/18, 0-22 DISEqC 2.0	14/18, 0-22 DISEqC 2.0
Mains voltage	V, Hz	220-240, 50-60	220-240, 50-60	220-240, 50-60
Power consumption	mA	25	25	25
Dimensions	mm	305x125x65	385x125x65	445x125x65
Operating temperature	°C	-10 to +55	-10 to +55	-10 to +55

\*Return path included

### Installation Example



## Multiswitches

# Compact range

## SWI517..S Series

17 inputs (16 SAT + 1 TV)

- ▶ Isolation between outputs >30dB
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Bandwidth up to 2300MHz
- ▶ Standard colour coding for easy installation

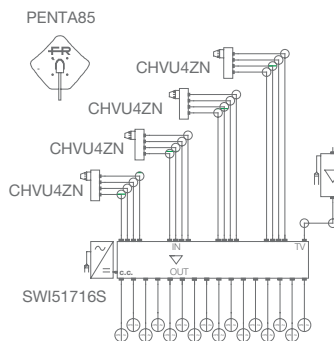
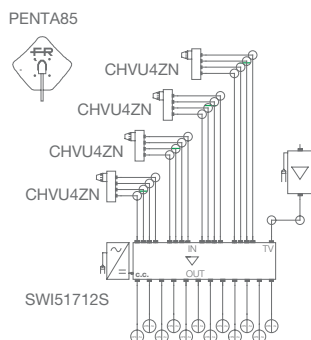


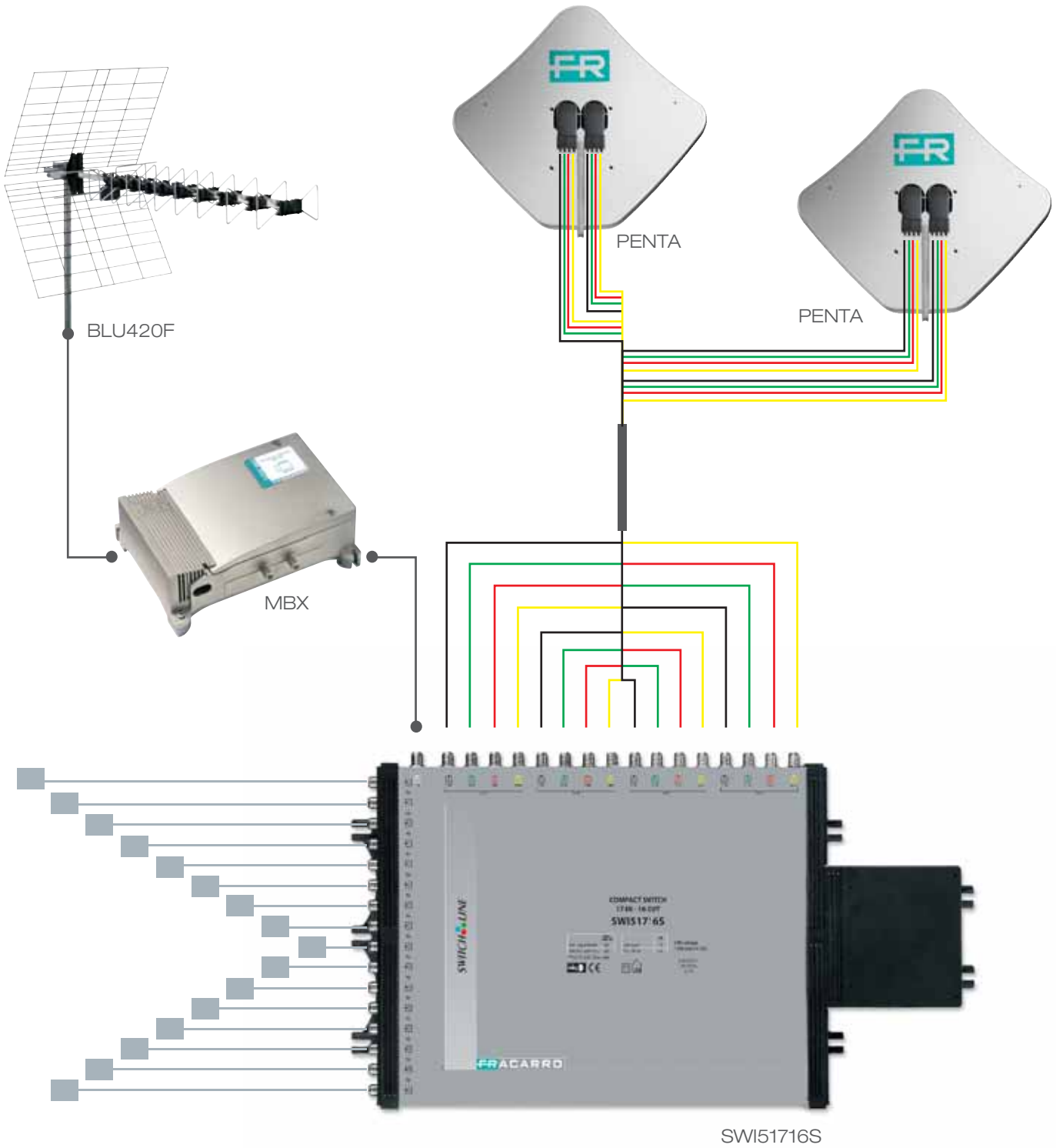
### 6, 12, 16 Outputs

Item Code	SWI51706S 289791	SWI51712S 289792	SWI51716S 289793
Inputs	17 (16 Sat + 1 TV)	17 (16 Sat + 1 TV)	17 (16 Sat + 1 TV)
Outputs	6	12	16
<b>SAT</b>			
Bandwidth	MHz	950-2300	950-2300
Gain	dB	-3	-3
Maximum output level	dBμV	95 (-35dBc 2 tones)	95 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth	MHz	5-862*	5-862*
Gain	dB	-16	-18
Maximum output level	dBμV	-	-
<b>General Parameters</b>			
LNB power supply	mA/V	1000/12	1000/12
Switching control	V, KHz	14/18, 0/22 DISEqC 2.0	14/18, 0/22 DISEqC 2.0
Mains voltage	V, Hz	220-240, 50-60	220-240, 50-60
Power consumption	mA	60	60
Dimensions	mm	430x105x51	430x240x51
Operating temperature	°C	-20 to +60	-20 to +60

\*Return path included

### Installation Example



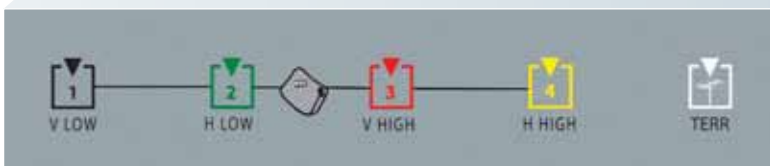


# Cascadable range

The **Cascadable range** has been designed to fulfill every installation requirement in large distribution systems.

The range offers active and passive products from 4 to 17 inputs.

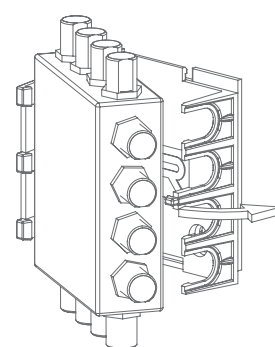
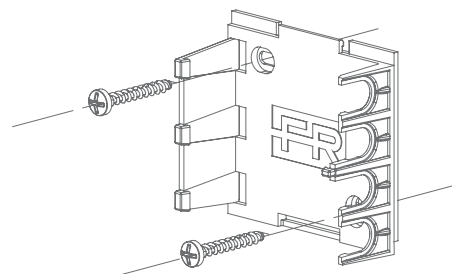
The inputs are colour coded to make connection quick and easy.



## SWI44.. Series

### 4 SAT inputs

- ▶ The LNB can be fed directly from the decoder
- ▶ Three different levels of attenuation -17dB, -8dB and 0dB for balancing signal
- ▶ Full HD compliant
- ▶ Plastic support for quick and easy installation
- ▶ Standard colour coding for easy installation



### 4 Outputs

Item Code	SWI4404-00 271081	SWI4404-08 271082	SWI4404-17 271083	
Inputs	4	4	4	
Outputs	4	4	4	
<b>SAT</b>				
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	0	-8	-17
Insertion loss	dB	2	2	2
Max. output level	dBμV	105	105	-
Power consumption	mA	35	35	15
Dimensions	mm	90x70x20		
Operating temperature	°C	-10 to +55	-10 to +55	-10 to +55



### 6 Outputs

Item Code	SWI4406-00 271084	SWI4406-08 271085	SWI4406-17 271086	
Inputs	4	4	4	
Outputs	6	6	6	
<b>SAT</b>				
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	0	-8	-17
Insertion loss	dB	2	2	2
Max. output level	dBμV	105	105	-
Power consumption	mA	35	35	15
Dimensions	mm	119x70x20		
Operating temperature	°C	-10 to +55	-10 to +55	-10 to +55



## Multiswitches

# Cascadable range

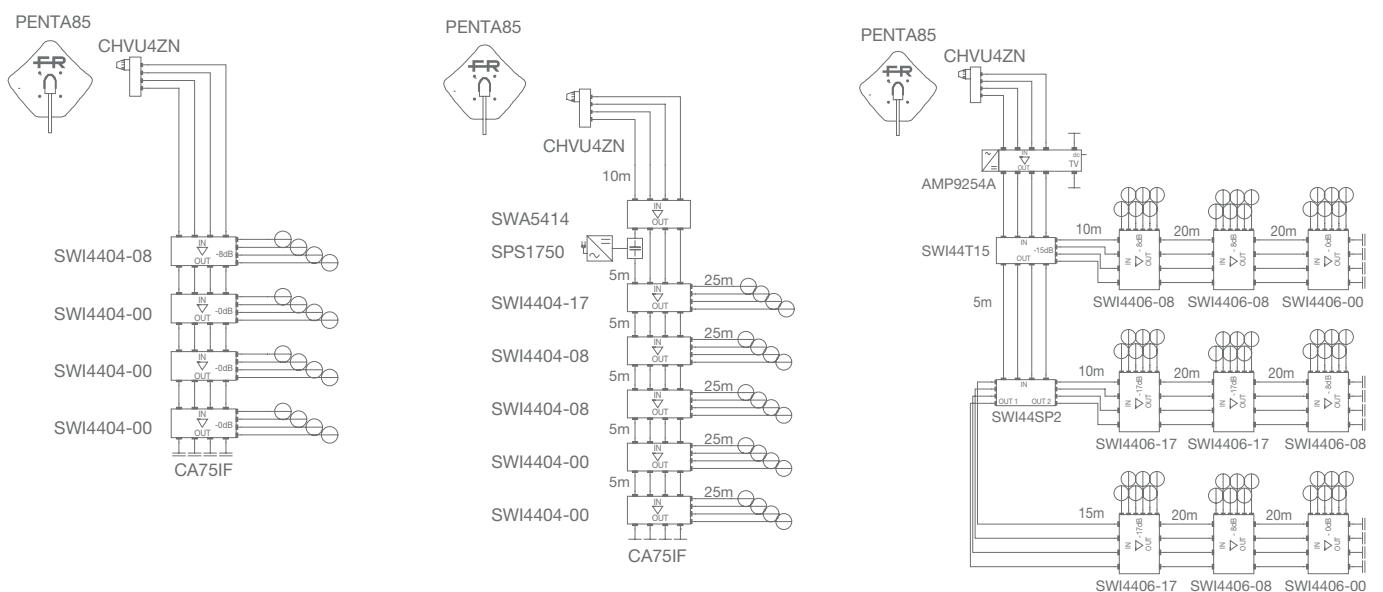
8 Outputs

**NEW**

Item Code	SWI4408-00 271087	SWI4408-08 271088	SWI4408-17 271089
Inputs	4	4	4
Outputs	8	8	8
<b>SAT</b>			
Bandwidth MHz	950-2150	950-2150	950-2150
Gain dB	0	-8	-17
Insertion loss dB	3	3	3
Max. output level dB $\mu$ V	105 (-35dBc 2 tones)	105 (-35dBc 2 tones)	-
Switching control V, KHz	14/18, 0/22 DISEqC 2.0		
Power consumption mA	35	35	15
Dimensions mm	150x70x20		
Operating temperature $^{\circ}$ C	-10 to +55	-10 to +55	-10 to +55



## Installation Example



## SWI35.. Series

### 5 inputs (4 SAT + 1 TV)

- ▶ Three different levels of attenuation on SAT: -17dB, -8dB and 0dB for balancing signal
- ▶ Available terminal version with 0dB attenuation on SAT
- ▶ Return path available on all switches
- ▶ With the MiniDiSEqC and the Tool Kit it is possible to distribute up to 4 satellites (16 polarities) + TV
- ▶ The MiniDiSEqC with 2 SAT inputs has a dip-switch to select the main satellite input
- ▶ Full HD compliant
- ▶ Standard colour coding for easy installation



### 4 Outputs

Item Code	SWI3504P 271013-C	SWI3504A10 271008	SWI3504A 271011-C	SWI3504T 271015-C
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	4	4	4	4
<b>SAT</b>				
Bandwidth	MHz 950-2150	MHz 950-2150	MHz 950-2150	MHz 950-2150
Gain	dB -20 to -16 tilted	dB -8	dB -2 to +1 tilted	dB -1 to +2 tilted
Insertion loss	dB -2	dB -2	dB -2	dB -
Max. output level	dBμV -	dBμV 110 (-35dBc 2 tones)	dBμV 105 (-35dBc 2 tones)	dBμV 105 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz 5-862*	MHz 5-862*	MHz 5-862*	MHz 5-862*
Gain	dB -19	dB -15	dB -15	dB -12
Insertion loss	dB -2.5	dB -3	dB -3.5	dB -
<b>General Parameters</b>				
Power consumption	mA 15	mA 40	mA 35	mA 35
Dimensions	mm 120x118x30	mm 120x118x30	mm 120x118x30	mm 120x118x30
Operating temperature	°C -10 to +55	°C -10 to +55	°C -10 to +55	°C -10 to +55

\*Return path included



### 6 Outputs

Item Code	SWI3506P 271014-C	SWI3506A10 271009	SWI3506A 271012-C	SWI3506T 271016-C
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	6	6	6	6
<b>SAT</b>				
Bandwidth	MHz 950-2150	MHz 950-2150	MHz 950-2150	MHz 950-2150
Gain	dB -21 to -16 tilted	dB -8	dB -3 to +1 tilted	dB -2 to +2 tilted
Insertion loss	dB -2.5	dB -2.5	dB -2.5	dB -
Max. output level	dBμV -	dBμV 110 (-35dBc 2 tones)	dBμV 105 (-35dBc 2 tones)	dBμV 105 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth	MHz 5-862*	MHz 5-862*	MHz 5-862*	MHz 5-862*
Gain	dB -19	dB -15	dB -15	dB -13
Insertion loss	dB -4	dB -4.5	dB -5	dB -
<b>General Parameters</b>				
Power consumption	mA 15	mA 40	mA 35	mA 35
Dimensions	mm 160x118x30	mm 160x118x30	mm 160x118x30	mm 160x118x30
Operating temperature	°C -10 to +55	°C -10 to +55	°C -10 to +55	°C -10 to +55

\*Return path included



# Cascadable range

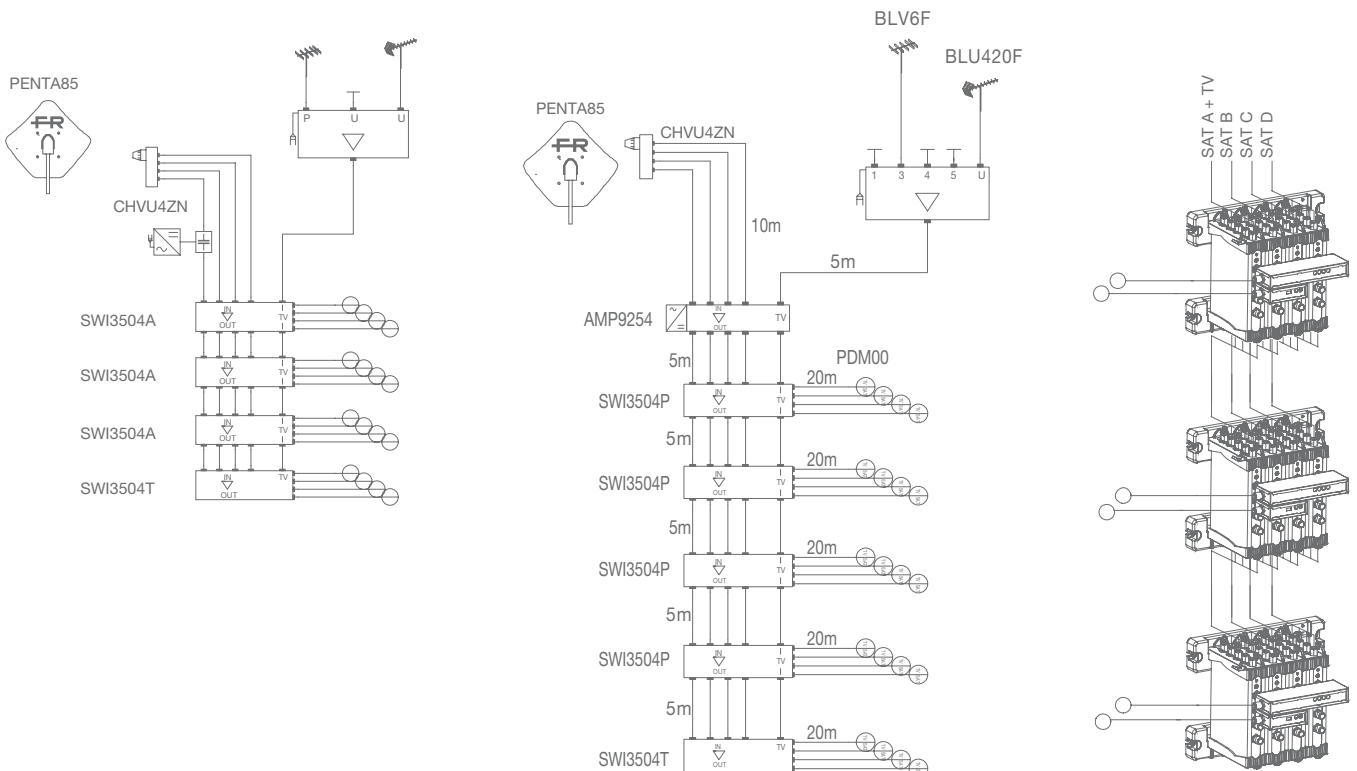
## 8 Outputs

Item Code	SWI3508P 271018-C	SWI3508A10 271010	SWI3508A 271017-C	SWI3508T 271019-C
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	8	8	8	8
<b>SAT</b>				
Bandwidth MHz	950-2150	950-2150	950-2150	950-2150
Gain dB	-21 to -16 tilted	-8	-2 to +1 tilted	-2 to +1 tilted
Insertion loss dB	-3.5	-3.5	-3.5	-
Max. output level dB $\mu$ V	-	110 (-35dBc 2 tones)	105 (-35dBc 2 tones)	105 (-35dBc 2 tones)
<b>TV</b>				
Bandwidth MHz	5-862*	5-862*	5-862*	5-862*
Gain dB	-25	-22	-22	-14
Insertion loss dB	-1	-3	-3	-
<b>General Parameters</b>				
Power consumption mA	15	40	35	35
Dimensions mm	220x118x30	220x118x30	220x118x30	220x118x30
Operating temperature $^{\circ}$ C	-10 to +55	-10 to +55	-10 to +55	-10 to +55

\*Return path included



## Installation Example



## SWI85..PLUS Series 5 inputs (4 SAT + 1 TV)

**NEW**

- ▶ Very high electrical performance
- ▶ Optimized energy consumption
- ▶ Very high isolation (45dB)
- ▶ Capable of 100m loop length
- ▶ TV gain adjustment
- ▶ 2 x SAT gain adjustments (high and low band)
- ▶ Fixed gain on the return path
- ▶ Full HD compliant
- ▶ Can be used with SWI95.. to create a mixed system (see page 7)
- ▶ Standard colour coding for easy installation

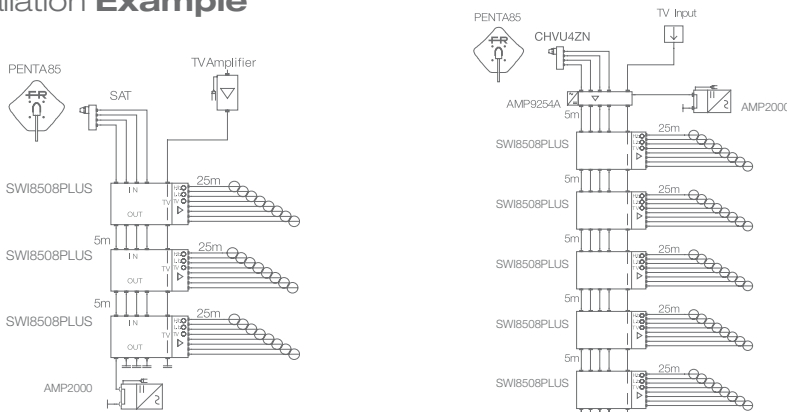


### 8, 12, 16 Outputs

Item Code	SWI8508PLUS 271055	SWI8512PLUS 271056	SWI8516PLUS 271063
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	8	12	16
<b>SAT</b>			
Bandwidth	MHz 950-2150		
Gain	dB -4 to 0		dB -3 to +1
Gain adjustment	dB 15		
Maximum output level	dBμV 110 (-35dBc 2 tones)		dBμV 108 (-35dBc 2 tones)
Insertion loss	dB 2	dB 2.5	dB 2.5
<b>TV</b>			
Bandwidth	MHz 85-862		
Gain	dB -8 to -4		dB -9 to -5
Gain adjustment	dB 20		
Maximum output level	dBμV 100 (-60dBc 3 tones)		dBμV 97 (-60dBc 3 tones)
Insertion loss	dB 1.5	dB 2	dB 2
<b>Return Path</b>			
Bandwidth	MHz 5-65		
Gain	dB -4	dB -5	dB -6
Maximum output level	dBμV 95 (-35dBc 2 tones)		
Insertion loss	dB 1	dB 1	dB 1
<b>General Parameters</b>			
Mains voltage	V 14/18		
Switching control	V, KHz 14/18, 0/22		
Power consumption	mA 280 (14V), 220 (18V)		
Dimensions	mm 260x120x30	mm 340x120x30	mm 425x120x30
Operating temperature	°C -10 to +55		



### Installation Example



## Multiswitches

# Cascadable range

## SWI85..STPLUS Series 5 inputs (4 SAT + 1 TV)



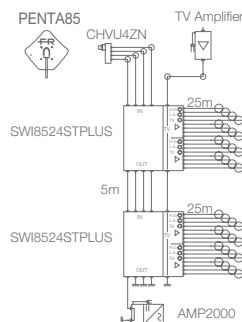
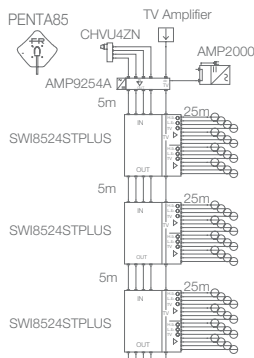
- ▶ Very high electrical performance
- ▶ Optimized energy consumption
- ▶ Very high isolation (45dB)
- ▶ Capable of 100m loop length
- ▶ TV gain adjustment
- ▶ 2 x SAT gain adjustments (high and low band)
- ▶ Fixed gain on the return path
- ▶ Full HD compliant
- ▶ Can be used with SWI95.. to create a mixed system (see page 7)
- ▶ Standard colour coding for easy installation



### 24, 32 Outputs

Item Code	SWI8524STPLUS 271066	SWI8532STPLUS 271058
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)
Outputs	24	32
<b>SAT</b>		
Bandwidth	MHz	950-2150
Gain	dB	-6 to 0
Gain adjustment	dB	15
Maximum output level	dBμV	110 (-35dBc 2 tones)
Insertion loss	dB	5
<b>TV</b>		
Bandwidth	MHz	85-862
Gain	dB	-9 to -6
Gain adjustment	dB	20
Maximum output level	dBμV	100 (-60dBc 3 tones)
Insertion loss	dB	4
<b>Return Path</b>		
Bandwidth	MHz	5-65
Gain	dB	-5
Maximum output level	dBμV	95 (-35dBc 2 tones)
Insertion loss	dB	2
<b>General Parameters</b>		
LNB power supply	mA/V	14/18
Switching control	V, KHz	14/18, 0/22
Power consumption	mA	560 (14V), 440 (18V)
Dimensions	mm	352x120x60
Operating temperature	°C	-10 to +55

### Installation Example



## SWI39.. Series

### 9 inputs (8 SAT + 1 TV)

- ▶ 2 different levels of attenuation on SAT: -17dB and 0dB
- ▶ Available terminal version with 0dB attenuation on SAT
- ▶ A dip-switch is available on each output to select the main satellite
- ▶ Return path included on all switches
- ▶ Full HD compliant
- ▶ Standard colour coding for easy installation

### 4 Outputs

Item Code	SWI3904P 271022	SWI3904A 271021	SWI3904T 271023
Inputs	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs	4	4	4
<b>SAT</b>			
Bandwidth MHz	950-2150	950-2150	950-2150
Gain dB	-20 to -16 tilted	0 to +2 tilted	+2 to +4 tilted
Insertion loss dB	-3	-3	-
Max. output level dBµV	-	105 (-35dBc 2 tones)	105 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth MHz	5-862*	5-862*	5-862*
Gain dB	-18	-15	-10
Insertion loss dB	-4	-4	-
<b>General Parameters</b>			
Switching control V, KHz	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0
Power consumption mA	35	50	50
Dimensions mm	125x125x52	125x125x52	125x125x52
Operating temperature °C	-10 to +55	-10 to +55	-10 to +55

\*Return path included

### 6 Outputs

Item Code	SWI3906P 289787	SWI3906A 289788	SWI3906T 289789
Inputs	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs	6	6	6
<b>SAT</b>			
Bandwidth MHz	950-2150	950-2150	950-2150
Gain dB	-22 to -17 tilted	-3 to 0 tilted	0 to +3 tilted
Insertion loss dB	-3	-3	-
Max. output level dBµV	-	105 (-35dBc 2 tones)	105 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth MHz	5-862*	5-862*	5-862*
Gain dB	-19	-16	-13
Insertion loss dB	-3	-4	-
<b>General Parameters</b>			
Switching control V, KHz	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0
Power consumption mA	35	50	50
Dimensions mm	170x125x52	170x125x52	170x125x52
Operating temperature °C	-10 to +55	-10 to +55	-10 to +55

\*Return path included

### 8 Outputs

Item Code	SWI3908P 271018	SWI3908A 271027	SWI3908T 271029
Inputs	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs	8	8	8
<b>SAT</b>			
Bandwidth MHz	950-2150	950-2150	950-2150
Gain dB	-21 to -16 tilted	-2 to 0 tilted	+1 to +3 tilted
Insertion loss dB	-4	-4	-
Max. output level dBµV	-	105 (-35dBc 2 tones)	105 (-35dBc 2 tones)
<b>TV</b>			
Bandwidth MHz	5-862*	5-862*	5-862*
Gain dB	-25	-22	-15
Insertion loss dB	-2	-3	-
<b>General Parameters</b>			
Switching control V, KHz	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0	14/18, 0/22, DiSEqC 2.0
Power consumption mA	35	50	50
Dimensions mm	210x125x52	210x125x52	210x125x52
Operating temperature °C	-10 to +55	-10 to +55	-10 to +55

\*Return path included



## Multiswitches

# Cascadable range

## Adjustable tap

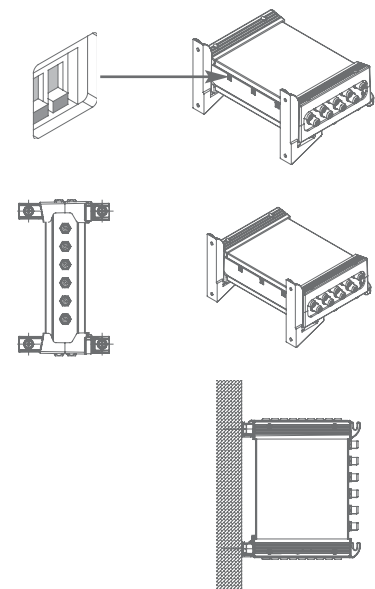
### 9 inputs (8 SAT + 1 TV)

- ▶ Enables the creation of a 9 inputs active TV system for cascadable systems
- ▶ Adjustable gain on SAT and terrestrial tap outputs
- ▶ Low insertion loss on trunk path
- ▶ Active return channel
- ▶ Full HD compliant
- ▶ Plastic support for quick and easy installation
- ▶ Standard colour coding for easy installation

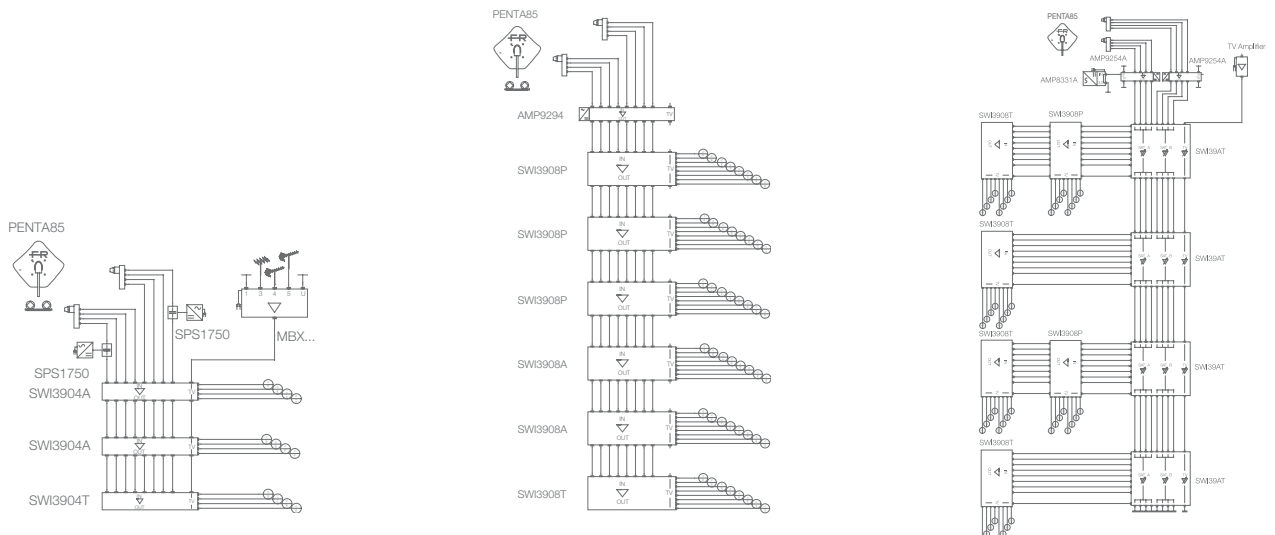


Item Code	SWI39AT 271020	
Inputs	9 (8 Sat + 1 TV)	
Outputs	9 (8 Sat + 1 TV)	
Tapped outputs	9 (8 Sat + 1 TV)	
<b>SAT</b>		
Bandwidth	MHz	950-2150
Gain	dB	-1 ± 2
Gain adjustment	dB	12
Maximum output level	dBµV	112 (-35dBc 2 tones)
Insertion loss	dB	1.5
<b>TV</b>		
Bandwidth	MHz	85-862
Gain	dB	10 to 15 tilted
Gain adjustment	dB	15
Maximum output level	dBµV	116 (-60dBc 3 tones)
Insertion loss	dB	1.5
<b>Return Path</b>		
Bandwidth	MHz	5-65
Gain	dB	10
Maximum output level	dBµV	106 (-35dBc 2 tones)
Insertion loss	dB	1.5
<b>General Parameters</b>		
Power consumption	mA	320(14V)
Isolation between outputs	dB	30
Dimensions	mm	117x132x55
Operating temperature	°C	-10 to +55

Plastic bracket for installing the switches in different positions



## Installation Example



## SWI39..S Series

### 9 inputs (8 SAT + 1 TV)

- ▶ Isolation between outputs >30dB
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Bandwidth up to 2300MHz
- ▶ Standard colour coding for easy installation

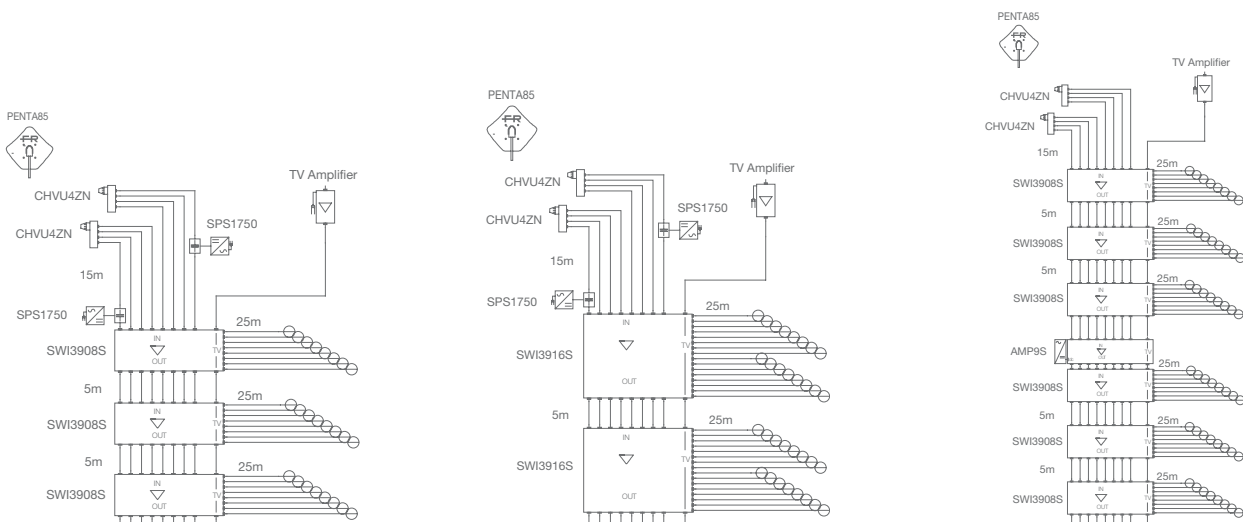


### 6, 8, 12, 16 Outputs

Item Code	SWI3906S 289783	SWI3908S 289784	SWI3912S 289785	SWI3916S 289786
<b>Inputs</b>	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
<b>Outputs</b>	6	8	12	16
<b>SAT</b>				
<b>Bandwidth</b>	MHz	950-2300	950-2300	950-2300
<b>Gain</b>	dB	0	0	-2
<b>Maximum output level</b>	dBμV	100 (-35dBc tones)	100 (-35dBc tones)	100 (-35dBc tones)
<b>Insertion loss</b>	dB	2	2	4
<b>TV</b>				
<b>Bandwidth</b>	MHz	5-862*	5-862*	5-862*
<b>Gain</b>	dB	-14	-15	-18
<b>Insertion loss</b>	dB	4	5	10
<b>General Parameters</b>				
<b>Switching control</b>	V, KHz	14/18, 22 DISEqC 2.0	14/18, 22 DISEqC 2.0	14/18, 22 DISEqC 2.0
<b>Power consumption</b>	mA	40	40	40
<b>Dimensions</b>	mm	215x105x40	215x105x40	215x195x40
<b>Operating temperature</b>	°C	-20 to +60	-20 to +60	-20 to +60

\*Return path included

### Installation Example



## Multiswitches

# Cascadable range

## Serie SWI89.. Series 9 inputs (8 SAT + 1 TV)

**NEW**

- ▶ Very high electrical performance
- ▶ Optimised energy consumption
- ▶ Very high isolation (45dB)
- ▶ Capable of 100m loop lenght
- ▶ TV gain adjustment
- ▶ 2 gain adjustments for SAT (SAT A and SAT B) signal
- ▶ Fixed gain on the return path
- ▶ Low consumption
- ▶ Full HD compliant
- ▶ Standard colour coding for easy installation

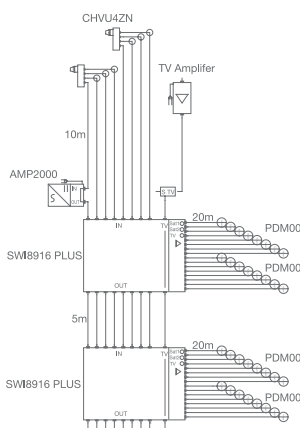


### 8, 12, 16 Outputs

Item Code	SWI8908PLUS 271067	SWI8912PLUS 271068	SWI8916PLUS 271069
Inputs	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)	9 (8 Sat + 1 TV)
Outputs	8	12	16
<b>SAT</b>			
Bandwidth	950-2150 MHz		
Gain	-3 to +3	-4 to +2	-6 to 0
Gain adjustment	15		
Maximum output level	110 (-35dBc 2 tones)		
Insertion loss	2	2.5	3
<b>TV</b>			
Bandwidth	85-862 MHz		
Gain	-7 to -3	-9 to -4	-11 to -5
Gain adjustment	20	20	20
Maximum output level	100 (-60dBc 3 tones)		
Insertion loss	2	2	2
<b>Return Path</b>			
Bandwidth	5-65 MHz		
Gain	-3	-5	-7
Maximum output level	95	97	97
Insertion loss	1	2	2
<b>General Parameters</b>			
Switching control	14/18, 22 DISEq 2.0		
Power consumption	350(14V), 280(18V)		
Mains voltage	14 - 18		
Dimensions	260x180x30	340x180x30	425x180x30
Operating temperature	-10 to +55		



### Installation Example



## SWI317..S Series

17 inputs (16 SAT + 1 TV)

- ▶ Isolation between outputs >30dB
- ▶ Return path included
- ▶ Full HD compliant
- ▶ Bandwidth up to 2300MHz
- ▶ Standard colour coding for easy installation

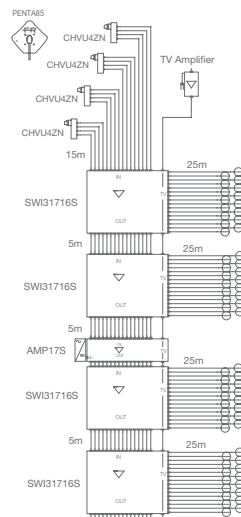
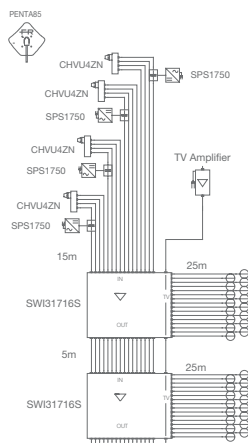


### 6, 12, 16 Outputs

Item Code	SWI31706S 289780	SWI31712S 289781	SWI31716S 289782
Inputs	17 (16 Sat + 1 TV)	17 (16 Sat + 1 TV)	17 (16 Sat + 1 TV)
Outputs	6	12	16
<b>SAT</b>			
Bandwidth	MHz 950-2300	MHz 950-2300	MHz 950-2300
Gain	dB -3	dB -4	dB -5
Maximum output level	dBμV 100 (-35dBc 2 tones)	dBμV 100 (-35dBc 2 tones)	dBμV 100 (-35dBc 2 tones)
Insertion loss	dB 2	dB 3	dB 4
<b>TV</b>			
Bandwidth	MHz 5-862*	MHz 5-862*	MHz 5-862*
Gain	dB -16	dB -19	dB -21
Insertion loss	dB 5	dB 8	dB 10
<b>General Parameters</b>			
Switching control	V, KHz 14/18, 22 DISEqC 2.0	V, KHz 14/18, 22 DISEqC 2.0	V, KHz 14/18, 22 DISEqC 2.0
Power consumption	mA 60	mA 60	mA 60
Dimensions	mm 345x105x40	mm 345x195x40	mm 345x240x40
Operating temperature	°C -20 to +60	°C -20 to +60	°C -20 to +60

\*Return path included

### Installation Example

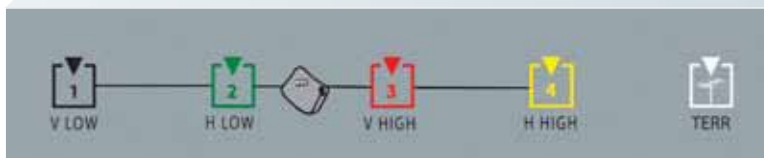
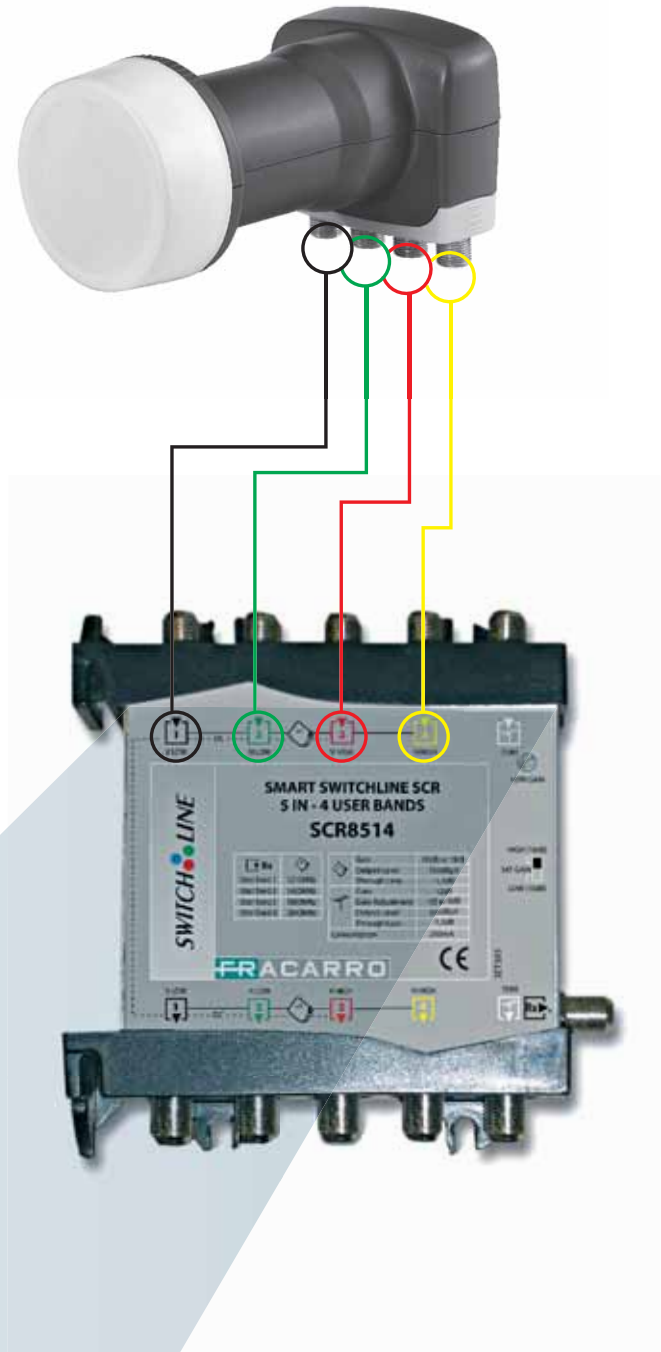


## Multiswitches

# SCR

The **SCR** Multiswitches are the new frontier in signal distribution: with a single coaxial cable, it is possible to connect multiple STBs or PVRs.

This product line guarantees high quality and low loss of insertion, allowing fitting to the original installation without effecting its operation.



## SCR4414, SCR8514 Series

### 4 inputs and 5 inputs

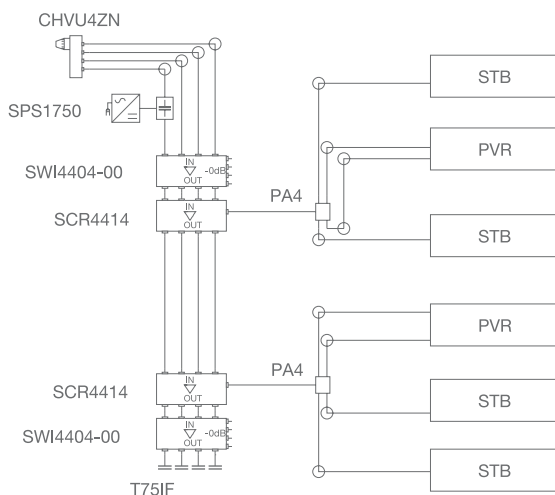
**NEW**

- ▶ Multiple STBs and PVRs can be connected by a single cable
- ▶ Adjustable SAT and TV gain
- ▶ High gain for splitting compensation
- ▶ Low insertion loss
- ▶ Compact size
- ▶ Standard colour coding for easy installation



Item Code	SCR4414 271120	SCR8514 271121
<b>Inputs</b>	4 Sat	4 Sat + 1 TV
<b>Outputs</b>	1 output for 4 users	1 output for 4 users
<b>SAT</b>		
Output band frequency MHz	1210, 1420, 1680, 2040	1210, 1420, 1680, 2040
Gain (tilted) dip-switch position 1 dB	12 to 16	12 to 16
dip-switch position 2 dB	4 to 8	4 to 8
Maximum output level dB $\mu$ V	105	105
Insertion loss dB	1	1
<b>TV</b>		
Bandwidth MHz	-	85-862
Gain dB	-	12
Gain adjustment dB	-	15
Maximum output level dB $\mu$ V	-	107 (-60dBc 3 tones)
Insertion loss dB	-	1
<b>General Parameters</b>		
Isolation between outputs dB	$\geq 28$	$\geq 28$
Switching control V, KHz	SCR	SCR
Power consumption mA	210	280
Dimensions mm	120x120x35	120x120x35
Operating temperature $^{\circ}$ C	-10 to +55	-10 to +55

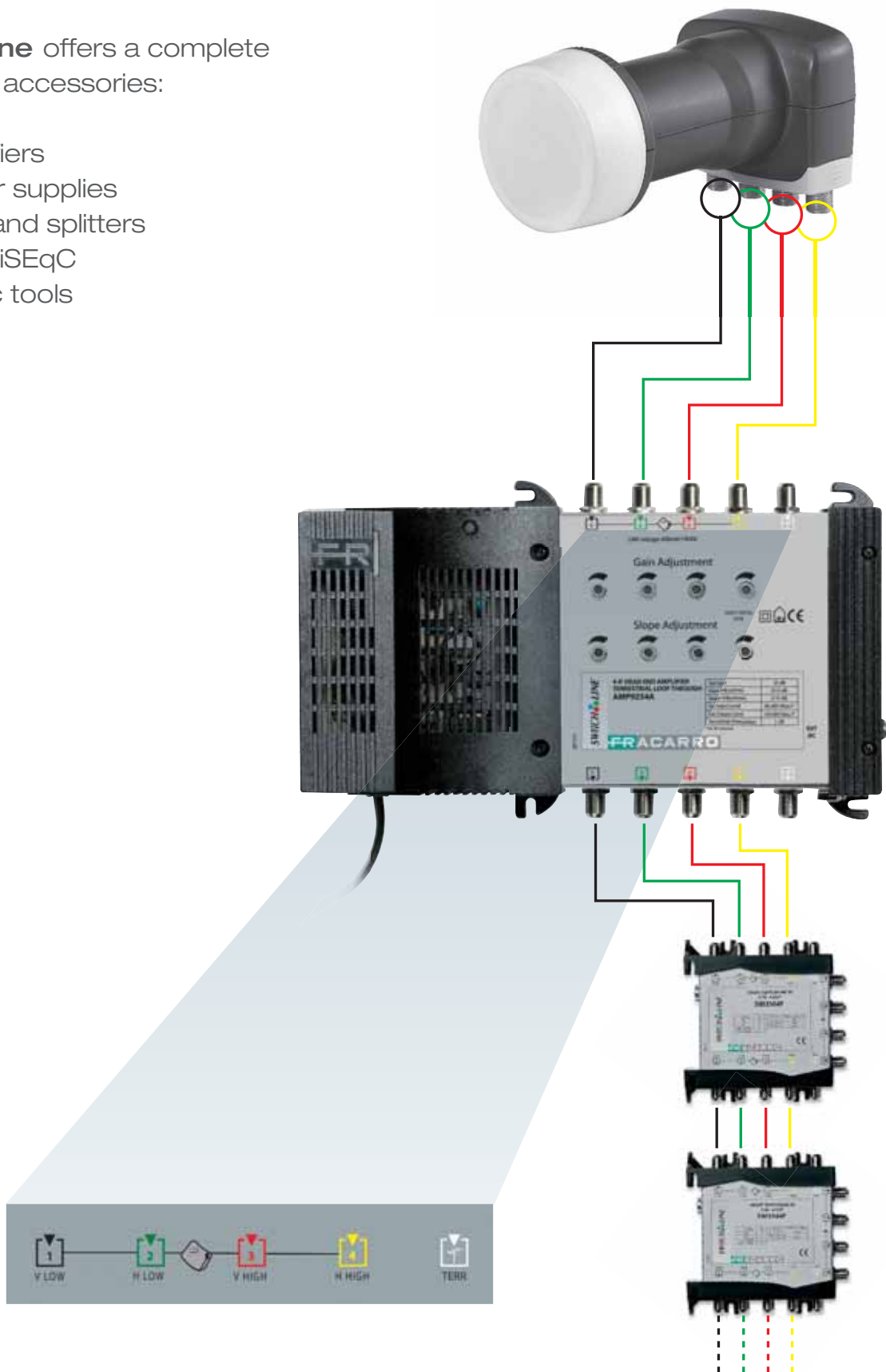
### Installation Example



# Accessories

**Switchline** offers a complete range of accessories:

- ▶ Amplifiers
- ▶ Power supplies
- ▶ Taps and splitters
- ▶ Mini DiSEqC
- ▶ Plastic tools



## AMP9254 Series

### Headend amplifier with 5 inputs (4 SAT + 1 TV)

- ▶ Gain adjustment for each SAT input
- ▶ For small and medium systems
- ▶ 400mA to feed the LNB

AMP9254



## AMP9254A Series

### Headend amplifier with 5 inputs (4 SAT + 1 TV)

- ▶ Gain and tilt adjustment for each SAT input
- ▶ There is a connector to insert DC on lines 1 and 2
- ▶ For medium and large systems or where there is a long distance between switches
- ▶ 400mA to feed the LNB

AMP9254A



## AMP9294 Series

### Headend amplifier with 9 inputs (8 SAT + 1 TV)

- ▶ Gain adjustment for each SAT input
- ▶ For small and medium systems
- ▶ 600mA to feed the LNB

AMP9294



Item Code	AMP9254 271031	AMP9254A 271033	AMP9294 271032
Inputs	5 (4 Sat + 1 TV)	5 (4 Sat + 1 TV)	9 (8 Sat + 1 TV)
<b>SAT</b>			
Bandwidth	MHz 950-2150		
Gain	19 (950MHz) 25 (2150MHz) Fixed tilt	32	20 (950MHz) 24 (2150MHz) Fixed tilt
Gain adjustment	15	15	15
Tilt adjustment	-	12	-
Maximum output level	dBμV 112 (-35dBc 2 tones)		
<b>TV</b>			
Bandwidth	MHz 85-862		
Gain	dB -1		
<b>General Parameters</b>			
Power consumption	16	19	20
Dimensions	235x125x65	235x125x65	320x125x65
LNB power supply	mA/V 400/14		

# Accessories

## AMP9S, AMP17S Series

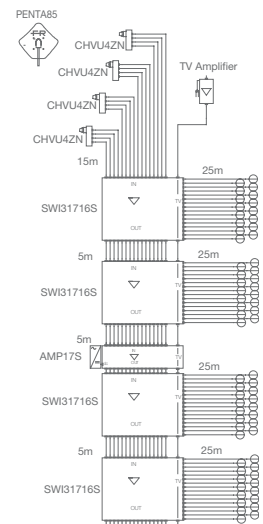
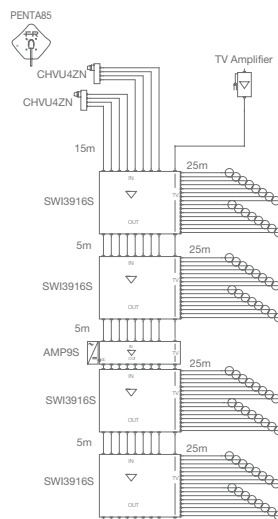
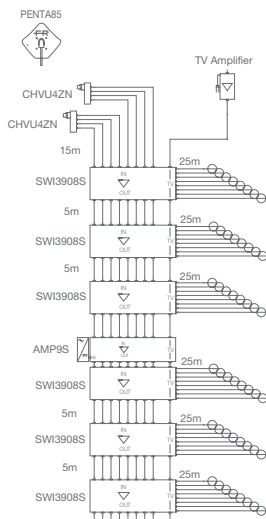
Headend amplifiers with 9 inputs (8 SAT + 1 TV) and 17 inputs (16 SAT + 1 TV)

- ▶ Gain and tilt adjustment for each SAT input
- ▶ Gain adjustment for the TV input
- ▶ High maximum output level
- ▶ Bandwidth up to 2300MHz
- ▶ 1800mA to feed the LNB



Item Code	AMP9S 289778	AMP17S 289779
Inputs	9 (8 Sat + 1 TV)	17 (16 Sat + 1 TV)
<b>SAT</b>		
Bandwidth	MHz 47-862	MHz 47-862
Gain	dB 27	dB 27
Gain adjustment	dB 10	dB 10
Tilt adjustment	dB 4	dB 4
Maximum output level	dBμV 115	dBμV 115
<b>TV</b>		
Bandwidth	MHz 950-2300	MHz 950-2300
Gain	dB 30	dB 30
Gain adjustment	dB 10	dB 10
Maximum output level	dBμV 114	dBμV 114
<b>General Parameters</b>		
LNB power supply	mA 1800	mA 1800
Mains voltage	V, Hz 220-240, 50/60	V, Hz 220-240, 50/60
Dimensions	mm 350x130x90	mm 430x130x90
Operating temperature	°C -20 to +60	°C -20 to +60

### Installation Example



## SWA5424 Series

### Line amplifier 4 SAT inputs

- ▶ Gain and tilt adjustment for each SAT input
- ▶ For small and medium systems
- ▶ Remote power supply through SAT trunk lines 1 (V/L), 2 (H/L) and 3 (V/H)

SWA5424



## SWA5414 Series

### Line amplifier 4 SAT inputs

- ▶ Fixed gain
- ▶ For small systems
- ▶ Can be powered directly through the D.C. F connector or by using an external power supply connected to the trunk line 1 (V/L)

SWA5414



## SWA5122 Series

### Line amplifier with 2 inputs (1 SAT + 1 TV)

- ▶ Gain and tilt adjustment on TV line
- ▶ Return path gain adjustment
- ▶ For medium and large systems
- ▶ Remote power supply through SAT trunk line

SWA5122



Item Code	SWA5424 271034	SWA5414 271036	SWA5122 271035
<b>Inputs</b>	4 Sat	4 Sat	2 (1 Sat + 1 TV)
<b>SAT</b>			
Bandwidth	MHz 950-2150	950-2150	950-2150
Gain	dB 25	12 to 16	-1
Gain adjustment	dB 15	-	-
Tilt adjustment	dB 14	-	-
Maximum output level	dBμV 116	108	-
Noise figure	dB 8	8	-
<b>TV</b>			
Bandwidth	MHz -	-	85-862
Gain	dB -	-	30
Gain adjustment	dB -	-	15
Tilt adjustment	dB -	-	15
Maximum output level	dBμV -	-	116
Noise figure	dB -	-	8
<b>Return Path</b>			
Bandwidth	MHz -	-	5-65
Gain	dB -	-	15
Gain adjustment	dB -	-	10
Maximum output level	dBμV -	-	106
Noise figure	dB -	-	7
<b>General Parameters</b>			
Mains voltage	V 14-30	14-18	14-30
Power consumption	mA, V 320, 14	120, 14	400, 14
Dimensions	mm 198x108x30	90x90x20	198x108x30
Operating temperature	°C -10 to +55	-10 to +55	-10 to +55



## Splitters and taps

- ▶ SWI44T15 Tap: DC pass on each trunk line
- ▶ SWI44SP2 Splitter: DC pass from output ports to input port on each polarisation
- ▶ SWI85T15 Tap: DC pass on each SAT line
- ▶ SWI85SP2 Splitter: DC pass on each SAT line
- ▶ Additional F connector for power injection on each SAT input/output
- ▶ Plastic bracket for quick and easy installation
- ▶ Standard colour coding for easy installation



**NEW**

### 4+4 Outputs

Item Code	SWI44SP2 271091	SWI44T15 271092	SWI85SP2 271094	SWI85T15 271095
Inputs	4	4	5 (4+1)	5 (4+1)
Outputs	4+4	4+4	5+5	5+5
<b>SAT</b>				
Bandwidth	MHz 950-2150			
Gain	dB -			
Insertion loss	dB -4.5			
<b>TV</b>				
Bandwidth	MHz 5-862			
Gain	dB -			
Insertion loss	dB -			
<b>General Parameters</b>				
Isolation SAT-SAT	dB ≥ 30			
Isolation SAT-TV	dB ≥ 30			
Operating temperature	°C -10 to +55			

## Mini DiSEqC

Accessory for modular 8 SAT or 16 SAT solutions + terrestrial



Item Code	SWI201B 271071	SWI1401B 271072
Inputs SAT	2 (1 with TV mix)	2 (1 with TV mix)
Inputs TV	0	0
Outputs	1	1
Insertion loss SAT	dB -1.5	
Insertion loss TV	dB -2	
Switching control	V, KHz DiSEqC 2.0	
Power consumption	mA 25	

**SWM1305A**  
271000  
Kit to combine SWI35...  
Multiswitches and  
MiniDiSEqC

Also for the Switchline multiswitches, Fracarro has extended its warranty to 4 years. Valid only in the EU. For further information visit our web site: [www.fracarro.com](http://www.fracarro.com)

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