

## 5510C/5516C, 5534/5544, 5535/5545 Obsolescence and Replacement Plan

### AFFECTED PARTS

The following parts are obsolete; the recommended replacements are shown in Table 1.

Obsolete Part	Replacement Part
5510C/5516C Proximity Signal Conditioners	5580 Smart Signal Conditioner
5534/5544 Velocity Signal Conditioners	5580 Smart Signal Conditioner
5535/5545 Acceleration Signal Conditioners	5580 Smart Signal Conditioner

Table 1

### SUMMARY OF KEY POINTS

#### Channel Count

The 5580 Smart Signal Conditioner has two channels. It can be ordered (lower cost) with only one channel licensed. However, some customers will want to take advantage of the two channels in the 5580 by using a single 5580 to replace two of the obsolete parts.

#### Configurable

The 5580 is field configurable using a laptop and the 5580 configuration software. The 5580 can be ordered with the configuration pre-installed ready to go.

#### Size and Mounting

With its dual channel functionality, the 5580 is taller than the obsolete parts. Normally the 5580 will be DIN rail mounted; the 9647 Adapter can be used to panel mount if needed. Please see the specification sheets for the exact dimensions of these parts.

Figure 1 shows a side by side of the two parts (for reference only).



Figure 1

## BandPass Filters

The 5580 has many bandpass filter options, and more are coming. If your required filter is not listed, please select the closest available. Special requests for bandpass filters can be accommodated (if needed).

## Switch/Relay Version

The SW5580 includes solid state or dry contact relays; it can be used as a signal conditioner and a switch.

## COMPARISON OF OBSOLETE AND REPLACEMENT PARTS

The following pages describe the differences between the obsolete and replacement parts.

Table 2 – 5510C (Radial Vibration) and 5516C (Position) Compared to the 5580 Smart Signal Conditioner		
Parameter	5510C, 5516C Signal Conditioner	5580 Smart Signal Conditioner
Display	None	Always Included
Mounting	Baseplate or DIN Rail	DIN Rail (Recommended) For Baseplate use the 9647 Adapter
Number of Channels	1 Channel	1 or 2 Channels
Site Configurable	Not Configurable	Yes - With Laptop and 5580 Software
Input Signal	7.87 mV/μm (200 mV/mil) from a proximity probe driver	Configurable for 7.87 mV/μm (200 mV/mil) or 3.93 mV/μm (100 mV/mil) from a proximity probe driver
Full Scale Ranges	Fixed by Order	Various
Frequency Response (5510C)	5 Hz-10 kHz	2 Hz – 5 kHz
Bandpass Filters	None	Check For Available Options
Output	4-20 mA dc (Source)	4-20 mA dc (Source)
Dynamic Signal Output	Buffered Output Signal at BNC	Buffered Output Signal at BNC
Input Power	18 - 30 VDC, 60 mA	20 - 30 Vdc

<b>Probe Driver Power</b>	-18 Vdc, or -24 Vdc	-19 Vdc
<b>Sensor Malfunction (Not OK)</b>	Output current driven below 3.6 mA and LED indicates either probe/cable not OK or probe gap is outside the linear range	Output current driven below 3.6 mA and sensor OK green LED turns red, driver fault voltages (-1 Vdc, -17 Vdc)
<b>Hazardous Area Rating</b>	None	Multi-Approvals (See Datasheet)
<b>Electromagnetic Compatibility</b>	CE Mark	CE Mark
<b>Isolation (Circuit To Ground)</b>	500Vrms, Circuit to Ground	600Vrms, Circuit to Ground
<b>Galvanic Isolation (In/Out/Pwr)</b>	Optional	None
<b>Maximum Load Resistance</b>	600 ohms	600 ohms
<b>Temperature Limits</b>	-51° C to +100° C (-60° F to + 212° F)	-40° C to +85° C (-40° F to +185° F)
<b>Housing</b>	Polymer internally coated for RFI/EMI protection	ABS PA765 Durable Plastic
<b>Dimensions</b>		
<b>Length</b>	98.3mm (3.87")	93mm (3.66")
<b>Width</b>	73mm (2.87")	45.1mm (1.78")
<b>Height</b>	71.8mm (2.83")	141.1mm (5.56")

For more information, please see the information available in our datasheets and manuals on our website ([metrixvibration.com](http://metrixvibration.com)).

5510C Signal Conditioners: [metrixvibration.com/products/discontinued/5510c-signal-conditioners](http://metrixvibration.com/products/discontinued/5510c-signal-conditioners)

5516C Signal Conditioners: [metrixvibration.com/products/discontinued/5516c-signal-conditioners](http://metrixvibration.com/products/discontinued/5516c-signal-conditioners)

5580 Smart Signal Conditioner: [metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner](http://metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner)

SW5580 Smart Vibration Switch: [metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch](http://metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch)

**Table 3 – 5534/5544 Velocity Signal Conditioner Compared with the 5580 Smart Signal Conditioner**

Parameter	5534, 5544 Velocity Signal Conditioner	5580 Smart Signal Conditioner
Display	Optional	Always Included
Mounting	Baseplate or DIN Rail	DIN Rail (Recommended) For Baseplate use the 9647 Adapter
Number of Channels	1 Channel	1 or 2 Channels
Site Configurable	Not Configurable	Yes - With Laptop and 5580 Software
Input Signal	100 to 500 mV/ips	100 to 500 mV/ips
Vibration Ranges	Various	Various
Bandpass Filters	Various Options	Check For Available Options
Frequency Response	2 Hz to 2 kHz	2 Hz to 2 kHz
Output	4-20 mA dc (Source)	4-20 mA dc (Source) ± 5% Complies with the NAMUR Standard
Dynamic Signal Output	Buffered Input Signal at BNC and Terminal Block	Buffered Input Signal at BNC and Terminal Block
Input Power	20 - 30 VDC	20 - 30 VDC
Sensor Excitation Provided	Required only for piezo-velocity sensor types: 19 VDC, 4 mA constant current standard; 19 VDC, 10 mA is field selectable via internal jumper	Required only for piezo-velocity sensor types: 24 VDC, 4 mA constant current standard
Sensor Malfunction (Not OK)	Output current driven below 3.6 mA and green LED turns off	Output current driven below 3.6 mA and sensor OK green LED turns red
Hazardous Area Rating	CSA & NRTL/C Class I (A, B, C & D), Div. 2	CSA & NRTL/C Class I (A, B, C & D), Div. 2, ATEX and IECEx, Plus More (See Datasheet)
Electromagnetic Compatibility	Yes	Yes
Isolation (Circuit To Ground)	500Vrms, Circuit to Ground	600Vrms, Circuit to Ground

<b>Galvanic Isolation (In/Out/Pwr)</b>	Optional	None
<b>Maximum Load Resistance</b>	600 ohms	600 ohms
<b>Temperature Limits</b>	5534: -40° to +66°C (-40° to + 150°F) 5544: -10° to +66°C (+14° to + 150°F)	-40° C to +85° C (-40° F to +185° F)
<b>Housing</b>	Polymer internally coated for RFI/EMI protection	ABS PA765 Durable Plastic
<b>Dimensions</b>		
<b>Length</b>	98.3mm (3.87")	93mm (3.66")
<b>Width</b>	73mm (2.87")	45.1mm (1.78")
<b>Height</b>	71.8mm (2.83")	141.1mm (5.56")

For more information, please see the information available in our datasheets and manuals on our website ([metrixvibration.com](http://metrixvibration.com)).

5534, 5544 Velocity Signal Conditioners: [metrixvibration.com/products/discontinued/5534-5544-velocity-signal-conditioners](http://metrixvibration.com/products/discontinued/5534-5544-velocity-signal-conditioners)  
5580 Smart Signal Conditioner: [metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner](http://metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner)  
SW5580 Smart Vibration Switch: [metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch](http://metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch)

**Table 4 – 5535/5545 Acceleration Signal Conditioner compared with the 5580 Smart Signal Conditioner**

Parameter	5535, 5545 Acceleration Signal Conditioner	5580 Smart Signal Conditioner
Display	Optional	Always Included
Mounting	Baseplate or DIN Rail	DIN Rail (Recommended) For Baseplate use the 9647 Adapter
Number of Channels	1 Channel	1 or 2 Channels
Site Configurable	Not Configurable	Yes - With Laptop and 5580 Software
Input Signal	100 to 500 mV/ips	100 to 500 mV/ips
Vibration Ranges	Various	Various
Bandpass Filters	Various Options	Check For Available Options
Output	4-20 mA dc (Source)	4-20 mA dc (Source)
Dynamic Signal Output	Buffered Input Signal at BNC and Terminal Block	Buffered Input Signal at BNC and Terminal Block
Input Power	20 - 30 VDC	20 - 30 VDC
Sensor Excitation Provided	19 VDC, 4 mA (Standard) 19 VDC, 10 mA (Jumper Selectable)	24VDC, 4mA 19 VDC, 10 mA Option is Not Available
Sensor Malfunction (Not OK)	Output current driven below 3.6 mA and green LED turns off	Output current driven below 3.6 mA and sensor OK green LED turns red
Hazardous Area Rating	CSA & NRTL/C Class I, Div. 2 Groups A, B, C & D	CSA & NRTL/C Class I, Div. 2 Groups A, B, C & D, ATEX and IECEx, Plus More (See Datasheet)
Electromagnetic Compatibility	Yes	Yes
Isolation (Circuit To Ground)	500Vrms, Circuit to Ground	600Vrms, Circuit to Ground
Galvanic Isolation (In/Out/Pwr)	Optional	None

<b>Maximum Load Resistance</b>	600 ohms	600 ohms
<b>Temperature Limits</b>	5535: -40° to +66°C (-40° to +150°F) 5545: -10° to +66°C (+14° to +150°F)	-40° C to +85° C (-40° F to +185° F)
<b>Housing</b>	Polymer internally coated for RFI/EMI protection	ABS PA765 Durable Plastic
<b>Dimensions</b>		
<b>Length</b>	98.3mm (3.87")	93mm (3.66")
<b>Width</b>	73mm (2.87")	45.1mm (1.78")
<b>Height</b>	71.8mm (2.83")	141.1mm (5.56")

For more information, please see the information available in our datasheets and manuals on our website ([metrixvibration.com](http://metrixvibration.com)).

5535, 5545 Accelerometer Signal Conditioners: [metrixvibration.com/products/discontinued/5535-5545-accelerometer-signal-conditioners](http://metrixvibration.com/products/discontinued/5535-5545-accelerometer-signal-conditioners)

5580 Smart Signal Conditioner: [metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner](http://metrixvibration.com/products/seismic/signal-conditioners/metrix-5580-smart-signal-conditioner)

SW5580 Smart Vibration Switch: [metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch](http://metrixvibration.com/products/switches/electronic-vibration-switches/sw5580-smart-vibration-switch)

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