# AFPI 160, 190 Small Signal Feed-Through Filters



#### **Overview**

A family of feed-through filters using film capacitor technology to achieve good temperature stability. This series are particularly used where high levels of attenuation up to 1GHz are required. The units are housed in robust, sealed, metal containers of threaded construction, and offer a range of terminal finishes.

- Very high attenuation level throughout frequency spectrum
- Self-healing capacitors
- · Wide choice of performance options
- · Superior pulse current capability
- · Excellent temperature stability
- · Wire, fast-on or tag termination options

## **Applications**

Specifically designed for military, industrial, telecom and medical applications, but especially suitable for use where fast rising transients are expected.







## **Technical Specifications**

Item	Parameters/ Characteristics		
Rated Voltage	250 VAC 100 - 600 VDC		
Rated Current	6 – 30 A		
Rated Temperature	40°C		
Temperature range	-25°C to 85°C		
Climate Category	25/085/21		
Voltage Test	250 - 2,700 VDC		

### **Typical Electrical Schematic**





## **Technical Specifications cont.**

Part Number	C (nF)	Rated Current at 40°C (A)	Rated Voltage (VDC/VAC)	Voltage Test (VDC)	RDC (mΩ)	UL
AFPI16(1)440DMW3N	2x2000	16	100/50	250	<6	
AFPI16(1)320WMW3N	2x100	16	440/-	1400	<6	¤
AFPI16(1)236TMW3N	2x18	16	600/250	2700	<6	¤
AFPI16(1)150TMW3N	2x2.5	16	600/250	2700	<6	
AFPI190410V6C3S	2x500	6	-/250	2121	<15	¤
AFPI19(1)440D3W4N	2x2000	30	100/-	250	<2	
AFPI19(1)320W3W4N	2x100	30	440/-	1400	<2	¤
AFPI19(1)236T3W4N	2x18	30	600/250	2700	<2	

(1) Termination:

0 = Wire terminations fitted at both ends

 $1 = 1 \times 6.3 \times 0.8$  mm Faston fitted at boss end & wire termination at other end

 $2 = 2 \times 6.3 \times 0.8$  mm Faston fitted at both ends

Standard wire length = 40 mm (W) if termination = "0" or "1" Wire eye to accept Ø 1.2 mm (C) only for AFPI190410V6C3S

UL Approval

# **Approvals**

Standard	Certification Body	File Number
UL 1283, 5 <sup>th</sup> Edition	UL	E192374



# **Environmental Compliance**

KEMET EMI filters are RoHS Compliant.



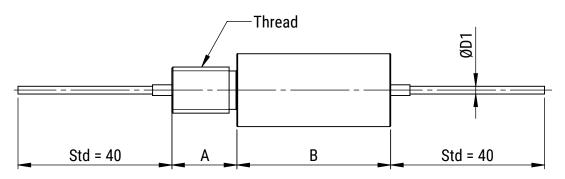
# **Typical Insertion Loss**

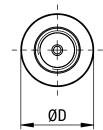
Part Number	50 kHz (dB)	100 kHz (dB)	300 kHz (dB)	1 MHz (dB)	10 MHz (dB)	100 MHz (dB)
AFPI16-440DMW3N	60	78	100	100	100	100
AFPI16-320WMW3N	6	10	19	50	93	100
AFPI16-236TMW3N	-	-	4	26	71	100
AFPI16-150TMW3N	-	-	-	5	36	83
AFPI190410V6C3S	-	23	53	78	100	100
AFPI19-440D3W4N	60	78	100	100	100	100
AFPI19-320W3W4N	6	10	19	50	93	100
AFPI19-236T3W4N	-	-	4	26	71	100



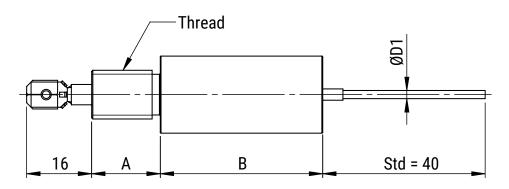
## **Mechanical Dimensions - Millimeters**

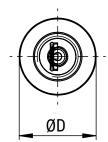
### AFPI 160 & 190 "W"





### AFPI 161 & 191 "W"



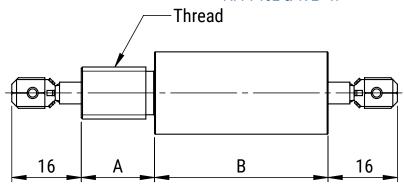


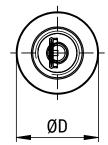
Part Number	Dimensions (mm)					
	A	В	D	D1	Thread	
AFPI16-440DMW3N	16	38	16	1.2	M10x0.75	
AFPI16-320WMW3N	12	34	16	1.2	M10x0.75	
AFPI16-236TMW3N	16	34	16	1.2	M10x0.75	
AFPI16-150TMW3N	12	34	16	1.2	M10x0.75	
AFPI190410V6C3S	17	75	19	1.2	M12x0.75	
AFPI19-440D3W4N	16	40	19	2	M12x0.75	
AFPI19-320W3W4N	16	40	19	2	M12x0.75	
AFPI19-236T3W4N	16	40	19	2	M12x0.75	



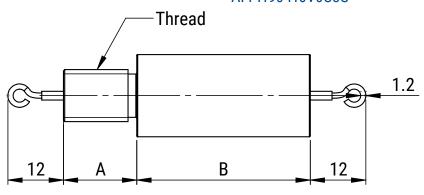
## **Mechanical Dimensions - Millimeters cont.**

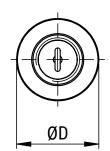
AFPI 162 & 192 "W"





### AFPI190410V6C3S





Part Number	Dimensions (mm)					
Part Number	A	В	D	D1	Thread	
AFPI16-440DMW3N	16	38	16	1.2	M10x0.75	
AFPI16-320WMW3N	12	34	16	1.2	M10x0.75	
AFPI16-236TMW3N	16	34	16	1.2	M10x0.75	
AFPI16-150TMW3N	12	34	16	1.2	M10x0.75	
AFPI190410V6C3S	17	75	19	1.2	M12x0.75	
AFPI19-440D3W4N	16	40	19	2	M12x0.75	
AFPI19-320W3W4N	16	40	19	2	M12x0.75	
AFPI19-236T3W4N	16	40	19	2	M12x0.75	



### **KEMET Electronics Corporation Sales Offices**

For a complete list of our global sales offices, please visit www.kemet.com/sales.

#### **Disclaimer**

YAGEO Corporation and its affiliates do not recommend the use of commercial or automotive grade products for high reliability applications or manned space flight.

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on KEMET Electronics Corporation's ("KEMET") knowledge of typical operating conditions for such applications, but are not intended to constitute – and KEMET specifically disclaims – any warranty concerning suitability for a specific customer application or use. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by KEMET with reference to the use of KEMET's products is given gratis, and KEMET assumes no obligation or liability for the advice given or results obtained.

Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.