

**PRODUCT
NEWS****Correction
Reissue****Product Discontinuation
Notices**Issue Date
September 1, 2026

No. 2026042EN

<< REQUEST >>

There was modification of Product News DRAFT 20241211_DOP_00001 of Month Year issue.
What we have changed is as follows; Final order entry date changed from the end of March, 2027 to end of September, 2026.
Please abolish old edition, replace the latest.

Product Discontinuation

Vibration Sensor

**D7F-S series
D7F-C series****Recommended Replacement**

Name of Category

**No recommended replacement
ifm electronic GmbH
VSA001
VSE002****[Final order entry date]**

The end of September, 2026

[Date of The Last Shipping]

The end of September, 2027

[Scheduled date of maintenance close]

The end of Month, Year

[Caution on recommended replacement]

When replacing with recommended alternative products, please assess the impact on actual usage based on the differences between the discontinued product and the recommended alternative, and proceed with the replacement.

Please contact your sales representative for details.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
VSA001	*	--	--	--	--	--	--
VSE002	--	--	--	--	--	--	--

** : Compatible

* : The change is a little/Almost compatible

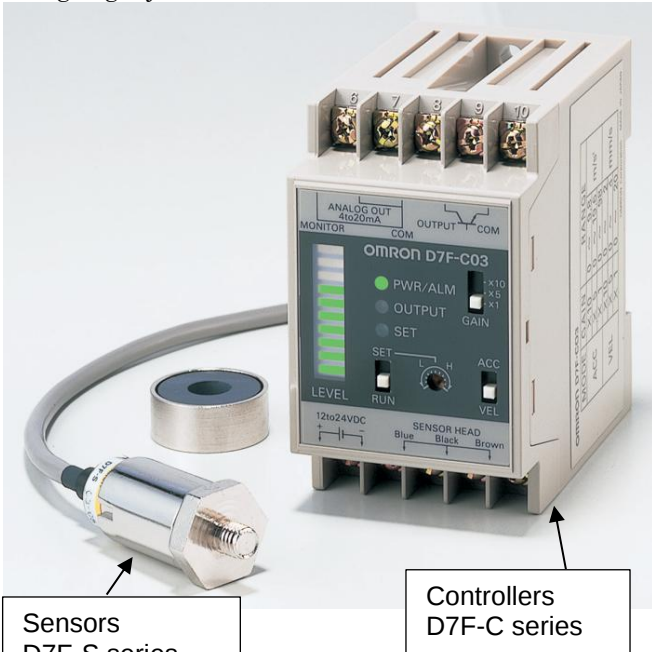
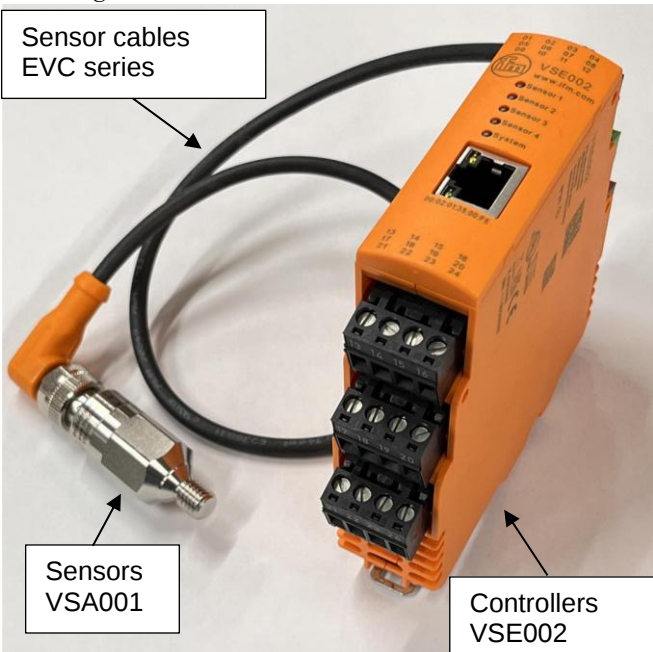
-- : Not compatible

- : No corresponding specification

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement	Standard price (¥)
D7F-S01-05	VSA001	Please inquire your trading company.
D7F-S01-10	VSA001	Please inquire your trading company.
D7F-S03-05	VSA001	Please inquire your trading company.
D7F-C01	VSE002	Please inquire your trading company.
D7F-C03	VSE002	Please inquire your trading company.

[Body color]

Product discontinuation Sensors Model D7F-S series Controllers Model D7F-C series	Recommendable replacement Sensors Model VSA001 Controllers Model VSE002
Sensors : D7F-S series Silvery Controllers : D7F-C series Light gray  Sensors D7F-S series Controllers D7F-C series	Sensors : VSA001 Silvery Controllers : VSE002 Orange  Sensor cables EVC series Sensors VSA001 Controllers VSE002

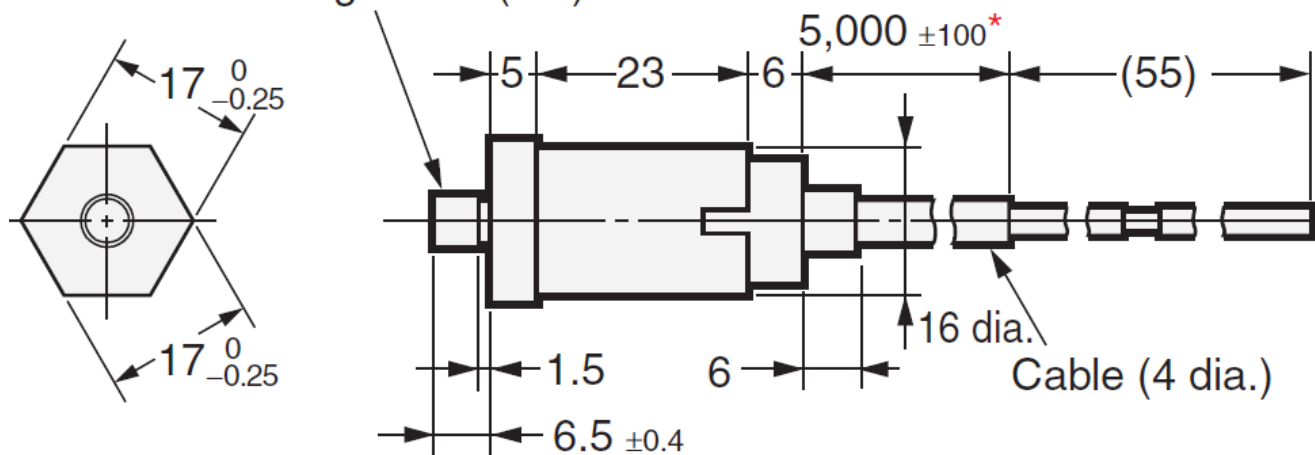
[Dimensions / Mounting dimensions]

Product discontinuation
Model D7F-S01-□

Sensors : D7F-S01-05/-10

Dimensions: 16 dia.×40.5

Mounting screw (M6)



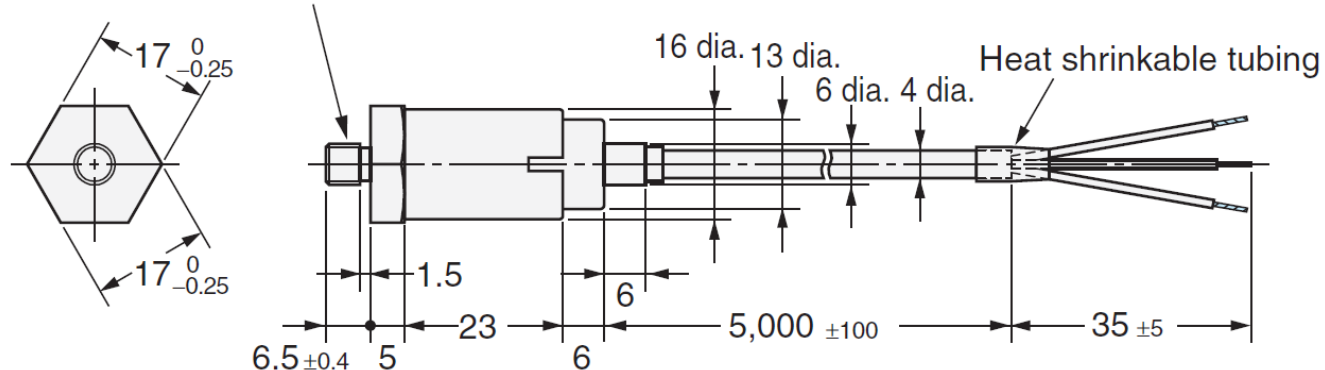
*10,000 ± 100 for a cable 10 m long.

Product discontinuation
Model D7F-S03-05

Sensors : D7F-S03-05

Dimensions: 16 dia.×40.5

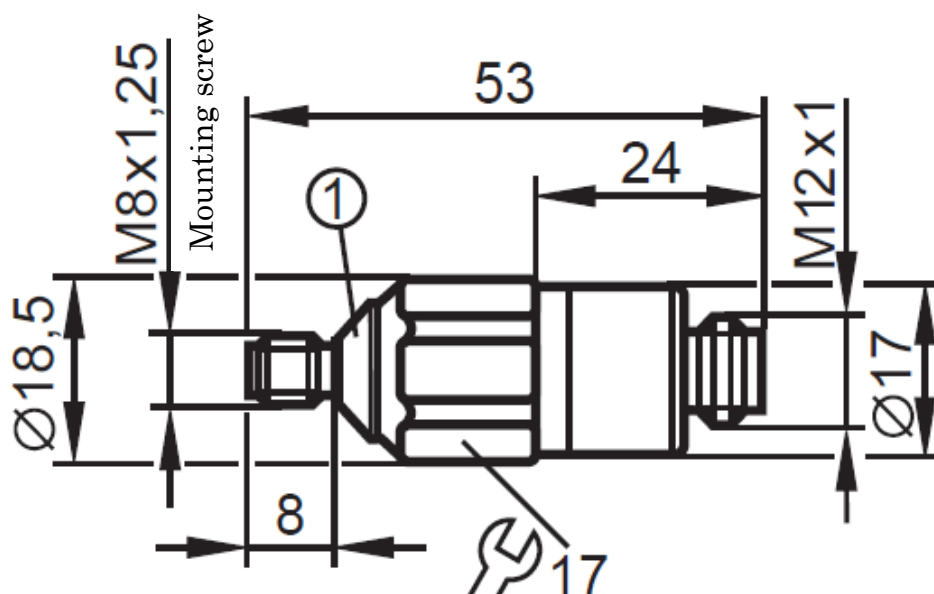
Mounting screw (M6)



Recommendable replacement
Model VSA001

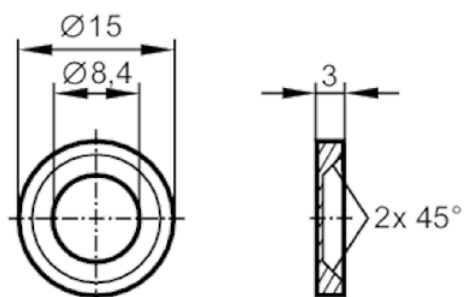
Sensors : VSA001

Dimensions: 18.5 dia.×53



Conical washer

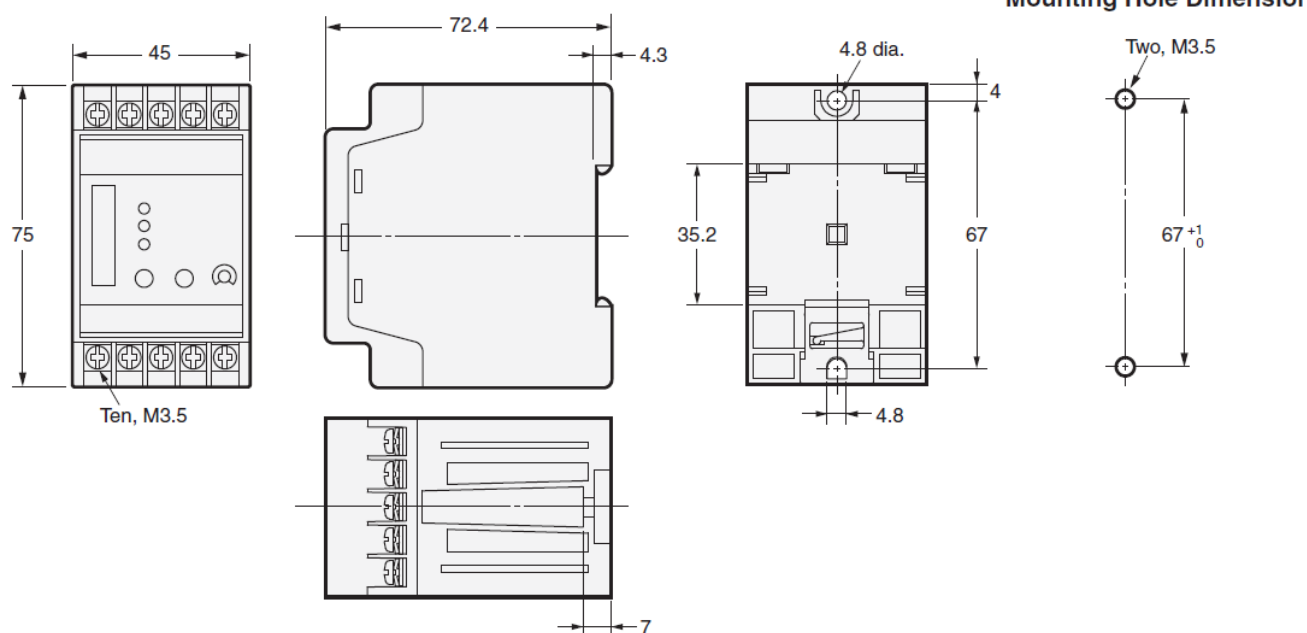
Dimensions: 15 dia.×3



Product discontinuation
Model D7F-C01

Controllers : D7F-C01

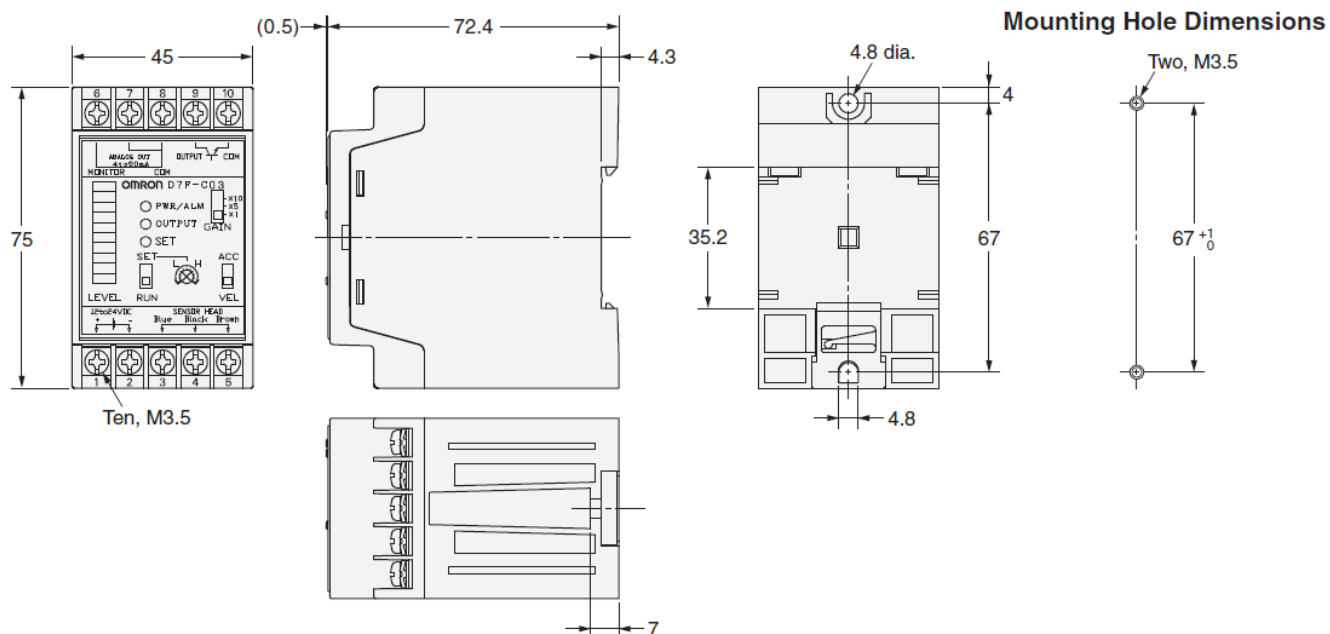
Dimensions : 45(W)×72.4(D)×75(H)



Product discontinuation
Model D7F-C03

Controllers : D7F-C03

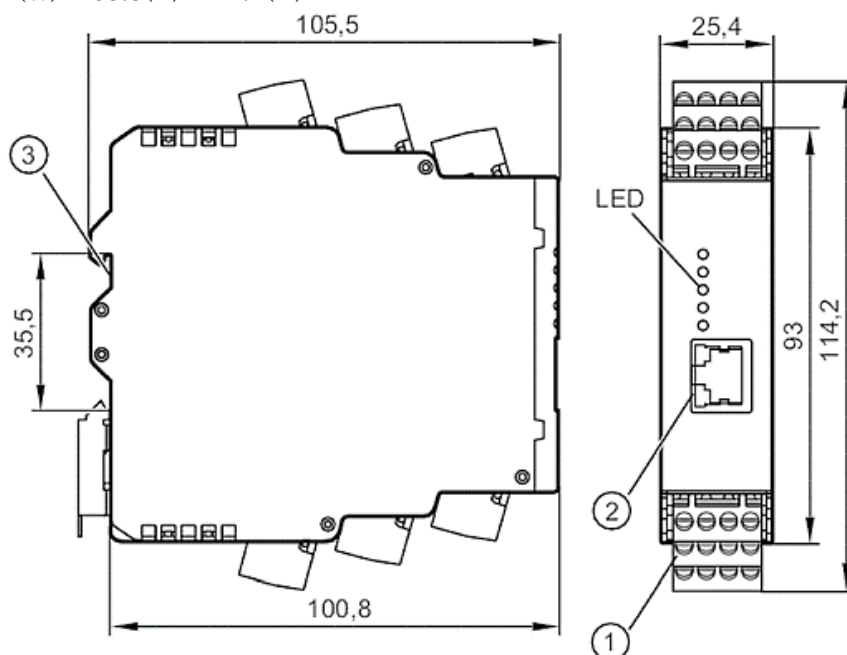
Dimensions : 45(W)×72.4(D)×75(H)



**Recommendable replacement
Model VSE002**

Controllers: D7F-C03

Dimensions: 25.4(W)×105.5(D)×114.2(H)

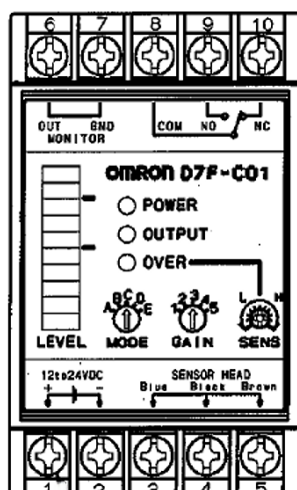


- 1 COMBICON connector
- 2 Ethernet interface
- 3 DIN rail adapter

[Terminal arrangement / Wire connection]

**Product discontinuation
Model D7F-C01**

Controllers: D7F-C01

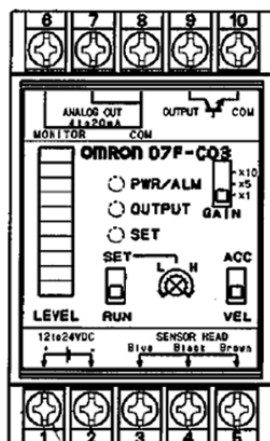


Terminal No.	code	Function
1	+	Power input terminal(+)
2	-	Power input terminal(-)
3	Blue	Sensor connect terminal(Blue)
4	Black	Sensor connect terminal(Black)
5	Brown	Sensor connect terminal(Brown)
6	MONITOR OUT	Monitor output terminal(OUT)
7	MONITOR GND	Monitor output terminal(GND)
8	COM	Relay output terminal(COM)
9	NO	Relay output terminal(NO)
10	NC	Relay output terminal(NC)

[Terminal arrangement / Wire connection] (Continued)

Product discontinuation
Model D7F-C03

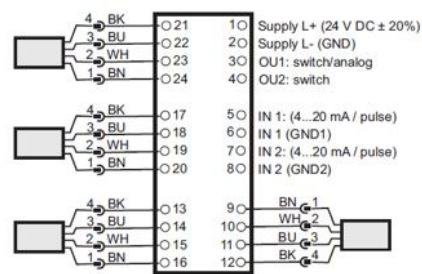
Controllers : D7F-C03



Terminal No.	Code	Function
1	+	Power input terminal (+)
2	-	Power input terminal (-)
3	Blue	Sensor connection terminal (Blue)
4	Black	Sensor connection terminal (Black)
5	Brown	Sensor connection terminal (Brown)
6	MONITOR	AC monitor output terminal
7	ANALOG OUT	DC analog output (4-20mA)
8	COM	AC monitor / DC analog common terminal
9	OUTPUT	Transistor output terminal
10	COM	Transistor output common terminal

Recommendable replacement
Model XXXXXXXX

Controllers : VSE002



Terminal	Connection	Description
1	L+	24 V DC supply
2	L-	GND
3	OU 1	Early warning output
4	OU 2	Main alarm output
5	IN 1	Process value input 1
6	GND1	
7	IN 2	Process value input 2
8	GND 2	

Sensor input				Usage			
S1	S2	S3	S4	VSA	VSP	IEPE	0...20 mA
9	16	20	24	BN Sensor supply 9 V	Do not use	Do not use	Do not use
10	15	19	23	WH Current input 0...10 mA	WH current input	IEPE	Current input 0...20 mA
11	14	18	22	BU GND	BK GND	GND IEPE	GND
12	13	17	21	BK Self-test output	Do not use	Do not use	Do not use

Sensors

Item	Product discontinuation D7F-S01-□	Product discontinuation D7F-S03-05	Recommendable replacement VSA001
Sensitivity	5.1mV(m/s ²)(TYP.)	5.1mV(m/s ²)±20%(at100 Hz)	142(μA/g)
Detection frequency	20Hz~2kHz(±3dB)	10Hz~2kHz(±3dB)	1Hz~6kHz
Resonance frequency	Approx.5kHz	(Approx.20kHz)	Approx.21kHz
Max. acceleration	784m/s ²	98m/s ²	25G
Vibration resistance (destruction)	10Hz~2kHz、2-mm single amplitude or 392m/s ²	10Hz~150Hz、0.35-mm single amplitude or 50m/s ²	20g/10~2000Hz
Shock resistance (destruction)	294 m/s ² 3 times each in X, Y, and Z directions	150 m/s ²	50(×9.81 m/s ²)11ms 500(×9.81 m/s ²)1ms
Connectable vibration sensor Controller	D7F-C01	D7F-C03	VSE002
Degree of protection	IP67(IEC60529)		IP67、IP68、IP69K
Dielectric strength	20 MΩ min. at 100 VDC between the case and all terminals	100 MΩ min. at 100 VDC between the case and all terminals	100MΩ(DC500V)
Dielectric strength	1,000 VAC between the case and all terminals at 50/60 Hz for 1 min		-
Ambient operating temperature range	-25~+70°C(with no icing or condensation)		-30~+125°C
Ambient operating humidity range	25~+95%RH(with no icing or condensation)		-
Storage temperature	-40~+80°C(with no icing or condensation)		-30~+125°C
Weight	Approx. 40 g (excluding the cable)		50g
What's in the Box	Quick-mounting Magnet Dimensions : 20g		E30115(conical washer)
Accessories (sold separately)	without		E30132(Insulation adapter) E30448(Magnet) See table below for cables

ifm electronic GmbH VSA/VSE Vibration Sensor List of connection cables

	L Model Connector (4-Core)	Straight Model (4-Core)
2m	EVC529	EVC526
5m	EVC530	EVC527
10m	EVC531	EVC528
15m	EVC651	
20m	EVC597	

Controllers

Item	Product discontinuation D7F-C01	Product discontinuation D7F-C03	Recommendable replacement VSE002
Power supply voltage range	DC12~24V±10%(DC10.8~26.4V)		24V±20%
Current consumption	200mA max.	100mA以下	200mA(DC24V)
Ambient operating temperature range	-20~+60°C (with no icing or condensation)	-10~+65°C (with no icing or condensation)	0~+70°C
Ambient operating humidity range	25~+95%RH (with no icing or condensation)	25~+85%RH (with no icing or condensation)	-
Storage temperature	-35~+70°C (with no icing or condensation)	-25~+65°C (with no icing or condensation)	0~+70°C
Vibration resistance (destruction)	10 to 150 Hz, 0.75-mm single amplitude, maximum acceleration of 98 m/s ²	10 to 150 Hz, 0.35-mm single amplitude or 50 m/s ²	-
Shock resistance (destruction)	294m/s ²	150m/s ²	-
Degree of protection	-	-	IP20
Connectable Vibration Sensor	D7F-S01-□	D7F-S03-05	VSA001
Vibration level indicator	10-level meter		-
Additional functions	Sensor cable disconnection, the level meter flashing and the output relay turns on	ALM indication for sensor cable disconnections	-
Weight	Approx.120g		323.1g
Output specification	See table below		See table below

Product discontinuation Model D7F-C01			Product discontinuation Model D7F-C03																																												
Output • specification			Output • specification																																												
Output	Relay output	SPDT (30 VDC, 3 A or 250 VAC, 3 A resistive load) ON delay: 0.1 s min. in Continuous Vibration Detection Mode 5 ms in Intermittent Vibration Detection Mode OFF delay: 1s	Output	Analog DC	Output range 4 to 20 mA Allowable load resistance 300 Ω max.																																										
	AC monitor *1	±4 VAC (output impedance: 10 kΩ) The output voltages for each range are shown below. ×1 range, 5.1 mV (m/s²) (typical) ×3 ranges, 15.3 mV (m/s²) (typical) ×10 ranges, 51 mV (m/s²) (typical) ×30 ranges, 153 mV (m/s²) (typical) ×100 ranges, 510 mV (m/s²) (typical)		Transistor	Output configuration NPN open collector Residual voltage 1.5 V max. Leakage current 0.1 mA max. Max. load voltage 26.4 VDC Sink current 100 mA min. Min. output time 50 ms min.																																										
				AC monitor *1	ACC (reference values) ×1 range, 5.1 mV/(m/s²) (typical) ×5 ranges, 25.5 mV/(m/s²) (typical) ×10 ranges, 51 mV/(m/s²) (typical) VEL (reference values) ×1 range, 25.4 mV/(mm/s) (typical) ×5 ranges, 127 mV/(mm/s) (typical) ×10 ranges, 254 mV/(mm/s) (typical) Impedance 10 kΩ																																										
Output waveform																																															
*1. The AC monitor output is used to check simple waveforms. Do not use it for precision measurements or waveform analysis. The noise level is about 15 mV. The following diagram shows the monitor output voltage.																																															
Acceleration setting without																																															
			<table><tr><td colspan="2"></td><td>ACC (acceleration)</td><td>VEL (velocity)</td></tr><tr><td rowspan="3">Range (rms)</td><td>×1</td><td>0 to 98 m/s²</td><td>0 to 20 mm/s</td></tr><tr><td>×5</td><td>0 to 19.6 m/s²</td><td>0 to 4 mm/s</td></tr><tr><td>×10</td><td>0 to 9.8 m/s²</td><td>0 to 2 mm/s</td></tr><tr><td>Frequency range</td><td colspan="2">20 to 2,000 Hz</td><td>10 to 1,000 Hz</td></tr><tr><td>Linearity</td><td colspan="3">±5% FS (at 100 Hz)*2</td></tr><tr><td>Gain error</td><td colspan="3">±5% FS (at 100 Hz)*2</td></tr><tr><td>Zero point offset</td><td colspan="3">4±0.2 mA (at 20°C)*2</td></tr></table> *2. Controller characteristic					ACC (acceleration)	VEL (velocity)	Range (rms)	×1	0 to 98 m/s²	0 to 20 mm/s	×5	0 to 19.6 m/s²	0 to 4 mm/s	×10	0 to 9.8 m/s²	0 to 2 mm/s	Frequency range	20 to 2,000 Hz		10 to 1,000 Hz	Linearity	±5% FS (at 100 Hz)*2			Gain error	±5% FS (at 100 Hz)*2			Zero point offset	4±0.2 mA (at 20°C)*2														
		ACC (acceleration)	VEL (velocity)																																												
Range (rms)	×1	0 to 98 m/s²	0 to 20 mm/s																																												
	×5	0 to 19.6 m/s²	0 to 4 mm/s																																												
	×10	0 to 9.8 m/s²	0 to 2 mm/s																																												
Frequency range	20 to 2,000 Hz		10 to 1,000 Hz																																												
Linearity	±5% FS (at 100 Hz)*2																																														
Gain error	±5% FS (at 100 Hz)*2																																														
Zero point offset	4±0.2 mA (at 20°C)*2																																														
Recommendable replacement Model VSE002																																															
Output • specification																																															
<table><tr><th colspan="2">Outputs</th><th></th></tr><tr><td>Total number of outputs</td><td></td><td>2</td></tr><tr><td>Output signal</td><td></td><td>switching signal; analogue signal</td></tr><tr><td>Electrical design</td><td></td><td>PNP</td></tr><tr><td>Number of digital outputs</td><td></td><td>2; (configurable)</td></tr><tr><td>Output function</td><td></td><td>normally open / normally closed; (parameterisable)</td></tr><tr><td>Max. voltage drop switching output DC [V]</td><td></td><td>2</td></tr><tr><td>Permanent current rating of switching output DC [mA]</td><td></td><td>100</td></tr><tr><td>Number of analogue outputs</td><td></td><td>1; (configurable)</td></tr><tr><td>Analogue current output [mA]</td><td></td><td>4...20</td></tr><tr><td>Max. load [Ω]</td><td></td><td>500</td></tr><tr><td>Short-circuit protection</td><td></td><td>yes</td></tr><tr><td>Type of short-circuit protection</td><td></td><td>pulsed</td></tr><tr><td>Overload protection</td><td></td><td>yes</td></tr></table>						Outputs			Total number of outputs		2	Output signal		switching signal; analogue signal	Electrical design		PNP	Number of digital outputs		2; (configurable)	Output function		normally open / normally closed; (parameterisable)	Max. voltage drop switching output DC [V]		2	Permanent current rating of switching output DC [mA]		100	Number of analogue outputs		1; (configurable)	Analogue current output [mA]		4...20	Max. load [Ω]		500	Short-circuit protection		yes	Type of short-circuit protection		pulsed	Overload protection		yes
Outputs																																															
Total number of outputs		2																																													
Output signal		switching signal; analogue signal																																													
Electrical design		PNP																																													
Number of digital outputs		2; (configurable)																																													
Output function		normally open / normally closed; (parameterisable)																																													
Max. voltage drop switching output DC [V]		2																																													
Permanent current rating of switching output DC [mA]		100																																													
Number of analogue outputs		1; (configurable)																																													
Analogue current output [mA]		4...20																																													
Max. load [Ω]		500																																													
Short-circuit protection		yes																																													
Type of short-circuit protection		pulsed																																													
Overload protection		yes																																													

Product discontinuation Model D7F-C01

Setting the operating mode, GAIN, and threshold values

Set by operating the switch on the main unit.

Operations

(1) MODE Selector

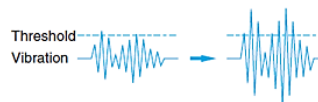
Selects the waveform processing mode.

MODE	Waveform	Application example
A	20 Hz to 20 kHz	General purpose, monitoring, etc.
B	20 Hz to 200 Hz	Imbalance, deviation, etc.
C	200 Hz to 2 kHz	High-speed rotating object error, etc.
D	2 kHz to 20 kHz	Bearing damage, etc.
E	Intermittent vibration detection	Contact, shock, etc.

(2) GAIN Selector (1 to 100 x)

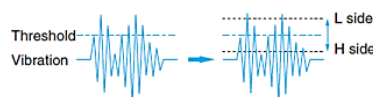
The GAIN Selector is used to change the signal strength.

Example: Increasing signal strength



(3) Sensitivity Adjuster

The sensitivity adjuster is used to change the threshold setting.



Indicators

(4) LEVEL METER (10 levels)

The Level Meter indicator clearly shows the vibration level.

(5) POWER

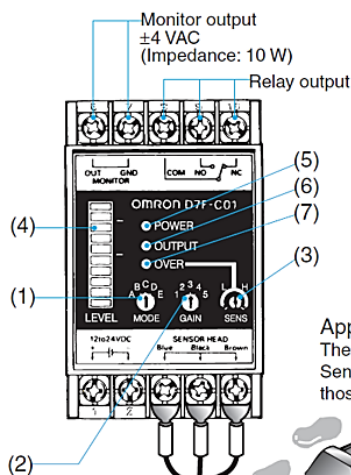
The POWER indicator is lit when the power is ON.

(6) OUTPUT

The OUTPUT indicator is lit when the output relay is operating.

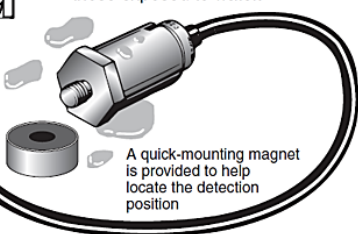
(7) OVER

The OVER indicator is lit when vibration is detected.



Applicable in Wet Environments

The IP67 (dust-proof and immersion-proof) rating for Vibration Sensors enables application in harsh environments, including those exposed to water.



- D7F-S01-□□ Vibration Sensor

Vibration Sensors use piezoelectric ceramic devices to convert vibration to electric signals.

Product discontinuation Model D7F-C03

Setting the operating mode, GAIN, and threshold values

Set by operating the switch on the main unit.

Indicators

(5) Level (10 levels)

RUN: Indicates vibration magnitude.

SET: Indicates threshold settings.

Level Meter levels	Vibration level and threshold settings
10	95% or higher FS
9	85% to 95% FS
8	75% to 85% FS
7	65% to 75% FS
6	55% to 65% FS
5	45% to 55% FS
4	35% to 45% FS
3	25% to 35% FS
2	15% to 25% FS
1	5% to 15% FS

Note: Use the Level Meter indicator strictly as a guideline.

(6) PWR/ALM Indicator

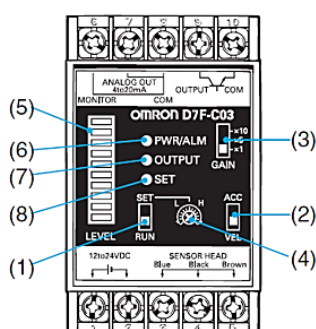
Power ON: Green light
Sensor error: Red light

(7) OUTPUT Indicator

The output transformer operates and the OUTPUT indicator lights at vibration levels exceeding the threshold setting. The output and indications are the same whether RUN or SET is selected.

(8) SET Indicator

The SET Indicator is lit when SET is selected from the RUN/SET selector.



Operations

(1) RUN/SET Selector

The RUN/SET Selector sets the Level Meter indication to RUN or SET.

(2) ACC/VEL Selector

The ACC/VEL Selector sets the operating mode to acceleration or velocity.

(3) GAIN Selector

The GAIN Selector changes the signal strength.

(4) Threshold Adjuster

The Threshold Adjuster sets the threshold value.

Recommendable replacement Model VSE002

Parameter setting for vibration monitoring and vibration diagnosis

It is configured using the dedicated software VES004.

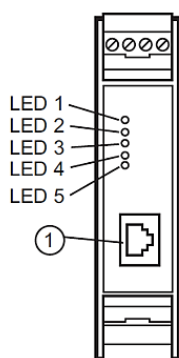
Refer to VES004 Guide (Startup) for operation method (Windows 11 compatible)

Example Configurations



	Equipment	Model	Versions, remarks
ifm electronic	VSE diagnostic amplifier	VSE002	v0.07.30
	Vibration sensor	VSA001	AG K48
	Sensor cable	EVC529	L-shaped, 4-core, 2m
	VSE Vibration Amplifier Settings Monitoring Software	VSE004	Ver.1.40.10.11426
	Magnet	F90043	VSA001 Fixing magnet
	washer	E30115	VSA001 Fixing conical washer
—	PC	—	OS:Windows 10 Pro (Windows11 possible)
	LAN cable	—	Straight or cross possible
	24V DC power	—	5A
	Power cable	—	VSE002と24V DC Connecting the power supply 0.34mm ² more than, 2-core

Main unit display



1: Ethernet interface

LED 1 for sensor 1	
Lights green	Sensor connected and configured
Flashes green	Sensor is configured; type VSA sensor is not connected or faulty type IEPE sensor not connected
Lights yellow	Early warning
Lights red	Main alarm
Flashes green/yellow alternately	Teach process active
LED 2 ditto for sensor 2 / LED 3 ditto for sensor 3 / LED 4 ditto for sensor 4	
LED 5 for system	
Lights green	System OK, monitoring running
Lights yellow	System OK, no monitoring due to parameter setting, self- test or FFT mode
Flashes green/yellow alternately	Monitoring not possible, faulty parameter set
Flashes green/red alternately	System error, EEPROM faulty, other states error in the system, device function restricted

Specifications and prices in this product news are as of the issue date and are subject to change without notice.
Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.
The information on the recommended substitute products from other companies is what our company is aware of as of the issuance of this notice. Regarding the end of production timing for the recommended alternative product, the possibility of continuing supply, the specifications, compatibility, and others, as well as other details, please inquire with your business partner and make your own decision at your company on whether to adopt the recommended alternative product.