



VIBRATION SELECTION GUIDE



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Robertshaw Vibration Instruments can be used on rotating or reciprocating machines. To select the proper instrument for your machine refer to the chart on page three (3) and/or follow the steps shown below:

STEP 1. Select the unit that meets the environmental conditions that your machine is located in [hazardous area (Explosion Proof or I.S) or non-hazardous; temperature range].

STEP 2. Select the Power Supply and/or Remote Reset Voltage required.

STEP 3. Select the unit that provides you with the required measurement type/range and frequency for your machine. The type would be acceleration (G's) or velocity (IPS). The range would be the G range or IPS range. The frequency would be in Hertz (RPM of machine ÷ 60).

STEP 4. If you require time delays (Start, Monitor or Start & Monitor – **see note below**), select the instrument that offers that feature. Models 375A & 376A offer **fixed** time delays; Model 566 offers **adjustable** Monitor Delay; Model 563A MUST BE used with Vibraswitches Models 365, 365A, E365A, 366 or EURO366 and provides **adjustable** time delay for the units that are connected to the 563A Monitor. **If time delay is not required proceed to step 5 below.**

STEP 5. Select the function that you desire:

a. Alarm or shutdown only by:

(1) Electrical SPDT or DPDT Switch Operation (Models 365, 365A, E365A, 366 & EURO366, and Models 375A & 376A with Start Delay Only).

(2) Solid State Triac Switch Operation (Models 375A & 376A except for Start Delay ONLY Model which has SPDT Switch Contacts).

(3) Pneumatic Operation (Model 368).

b. 4-20 mA output only (Models 570B & 571A).

c. 4-20 mA output with alarm and/or shutdown contacts, two triac outputs (Model 566).

STEP 6. Check to see if the Model selected above has a mounting configuration suitable for your application. **All units are surface mount except for the following:**

a. Models 570B & 571A are stud mount.

b. Model 563A Monitor is used with the surface mount 365, 365A, E365A, 366 & EURO366 Vibraswitches to provide adjustable start and monitor time delays.

STEP 7. After you have made your selection, review the complete Product Specification Sheet to verify your selection is correct.

NOTE:

Start, Monitor, or Start & Monitor Delays are used to prevent unwanted shutdown or alarm during startup or normal operation of your machine.

(a) **Start Delay:** Prevents unwanted shutdown when excessive vibration exists (which exceeds the set-point of the vibration switch or monitor) during the start-up of the machine.

(b) **Monitor Delay:** Prevents unwanted shutdown when short excessive vibration spikes occur (which exceed the set-point of the vibration switch or monitor) during normal operation of the machine. This can be from various reasons including detonation, cavitation, other machinery in the immediate area, etc.

MODEL	VIB RANGE	FREQ RANGE (Hz)	TEMP RANGE DEG F	SUPPLY				RESET COIL VOLTAGE	OUTPUT			TIME DELAY	ENCLOSURE (See Note 1)		INT. SAFE	MTG	
				LOOP POWERED	24 VDC	48 VDC	120 VAC		240 VAC	SWITCH CONTACTS			4-20 mA	EXP PROOF			NEMA
										SPDT	DPDT						
365-AX or -DX	0-4.5 G	0-300	-40 to 140										(Note 2, 20)			Surface	
365-GX	0-4.5 G	0-300	-40 to 140										(Note 3)			Surface	
365A-AX or -DX	0-4.5 G	0-300	-13 to 140										(Note 4)	4 & IP66 (Note 5)		Surface	
365A-GX	0-4.5 G	0-300	-13 to 140										(Note 6)	(Note 6)		Surface	
E365A-AX or -DX	0-4.5 G	0-300	-13 to 140										(Note 7)	E365A-A E365A-D		Surface	
E365A-GX	0-4.5 G	0-300	-13 to 140										(Note 6)	E365A-G		Surface	
366-AX or -DX	0-4.5 G	0-300	-40 to 200										(Note 1)	366-A 366-D		Surface	
366-GX	0-4.5 G	0-300	-40 to 200										(Note 3)	366-G		Surface	
EURO366 SER.	0-4.5 G	0-300	-22 to 185										(Note 10)	(See Note 10)		Surface	
368R	0-4.5 G	0-300	-40 to 200	PNEUMATIC SUPPLY				PNEUMATIC	(PNEUMATIC OUTPUT)				(Note 11)	X	Surface		
375A-A1-X0	0-4.5 G	0-300	-20 to 140	(Note 12)			X		X		Fixed	(Note 11, 12)				Surface	
375A-A2-AX	0-4.5 G	0-300	-20 to 140	(Note 14)			X		Solid State TRIAC		Fixed	(Note 11, 12)				Surface	
375A-A3-XX	0-4.5 G	0-300	-20 to 140	(Note 15)			X		Solid State TRIAC		Fixed	(Note 11, 12)				Surface	
376A-A1-X0	0-4.5 G	0-300	-20 to 140	(Note 12)			X		X		Fixed		4 (Note 11)			Surface	
376A-A2-AX	0-4.5 G	0-300	-20 to 140	(Note 14)			X		Solid State TRIAC		Fixed		4 (Note 11)			Surface	
376A-A3-XX	0-4.5 G	0-300	-20 to 140	(Note 15)			X		Solid State TRIAC		Fixed		4 (Note 11)			Surface	
563A (Note 16)	0-4.5 G	0-300	-40 to 160		Opt	Opt	X	Opt	X		Adj.	Optional	(Note 17)			Surface	
566-A1	(Note 18)	8-1k	-40 to 176				X		2 Solid State TRIACS	X	Adj.	(Note 19)	(Note 11, 19)			Surface	
566-B1	(Note 18)	8-1k	-40 to 176				X		2 Solid State TRIACS	X	Adj.	(Note 19)	(Note 11, 19)			Surface	
566-A2 (Note 21)	(Note 18)	8-1k	-40 to 176				X		2 Solid State TRIACS	X	Adj.	(Note 19, 21)	(Note 11, 19, 21)			Surface	
566-B2 (Note 21)	(Note 18)	8-1k	-40 to 176				X		2 Solid State TRIACS	X	Adj.	(Note 19, 21)	(Note 11, 19, 21)			Surface	
570B-A	0-5 G	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
570B-B	0-10 G	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
570B-C	0-20 G	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
570B-D	0-0.5 IPS	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
570B-E	0-1 IPS	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
570B-F	0-2 IPS	2-2k	-40 to 185	10-30 VDC							X		4X & IP68			Stud	
571A SERIES	(Note 22)	2-2k	-40 to 185	14-30 VDC							X		4X & IP68			Stud	

- NOTES: 1. X in Model Number indicates reset coil voltage. Replace X with a number indicating reset coil voltage as follows: 2 = 24 VDC; 4 = 48 VDC; 7 = 120 VDC; 8 = 120 VAC; 3 = 240 VAC.
2. Most models are CSA Certified & FM Approved for Class I & II, Division 1, Groups C, D, E, F & G – see Product Specification Sheet.
3. 365-G & 366-G same as 365-D & 366-D except switch contacts are gold for low voltage/current applications. 365-G not CSA Certified or FM Approved. 366-G not CSA Certified.
4. Most models are UL & c-UL Listed for Class I & II, Division 1, Groups B, C, D, E, F & G; AEx d IIB+H T6; Ex d IIB+H T6 – see Product Specification Sheet.
5. For NEMA 4X (epoxy painted enclosure) add suffix E. For space heater (same voltage as reset coil) add suffix H. Add suffix EH for both.
6. 365A-G & E365A-G same as 365A-D & E365A-D except switch contacts are gold for low voltage/current applications
7. X in Model Number indicates reset coil voltage. Replace X with a number indicating reset coil voltage as follows: 2 = 24 VDC; 4 = 48 VDC; 7 = 120 VDC; 8 = 120 VAC.
8. UL & c-UL Listed for Class I & II, Division 1, Groups B, C, D, E, F & G; AEx d IIB+H T6; Ex d IIB+H T6 and DEMKO Certified for ATEX EEx d IIB+H T6
9. Most models are CSA Certified for Enclosure 4 & 12 – see Product Specification Sheet.
10. EURO366 Series is explosion proof & weather proof version of 366. ATEX Certified for EEx-d-IIA/B/C-T6 IP65 T85° C for use in Europe – see Product Specification Sheet.
11. For epoxy painted enclosure (base only on Models 368R & 376A) add suffix E
12. X in Model Number denotes options for selecting fixed Start Delay times – see Product Specification Sheet.
13. Most models are FM Approved for Class I & II, Division 1, Groups C, D, E, F & G – see Product Specification Sheet. For epoxy painted enclosure add suffix E.
14. X in Model Number denotes options for selecting fixed Monitor Delay times – see Product Specification Sheet.
15. X in Model Number denotes options for selecting fixed Start and Monitor Delay times – see Product Specification Sheet.
16. Monitor to be used with Model 365, 365A, E365A, 366 or EURO366 Vibraswitches; provides adjustable Start (0-999 seconds) and Monitor (0-99 seconds) Time Delays.
17. NEMA 4 standard. Optional NEMA 4X (Grey Epoxy Painted Steel) or NEMA 4X (Stainless Steel); External Reset Pushbutton(s) and Alarm Indicators – see Product Specification Sheet.
18. Selectable: Velocity 0-1.5 in/sec RMS or 0-3 in/sec RMS; Acceleration 0-5 G's RMS or 0-10 G's RMS.
19. FM Approved/CSA Certified Explosion Proof for Class I, Division 1, Groups C & D; Class II, Division 1, Groups E, F & G. CSA Certified for Enclosure 4 (watertight) – equivalent to NEMA 4.
20. For epoxy painted enclosure (base only on Model 366) add suffix E. For space heater (same voltage as reset coil) add suffix H. For both add suffix EH.
21. Remote Mount Transducer (up to 1000 feet) using ungrounded twisted pair wires. Remote Transducer Housing FM Approved for Class I, Division 1, Groups B, C & D; Class II, Division 1, Groups E, F & G; NEMA 4. CSA Certified for Class I, Division 1, Groups C & D; Class II, Division 1, Groups E, F & G; Enclosure 4.
22. 571A Series is an Intrinsically Safe version of the 570B-A, -B, -C -D, -E & -F. CSA Certified for the USA and Canada for Class I, Division 1, Groups A, B, C & D. 571A Series is also ATEX Certified for EEx ia IIC T3 and CE Certified for Europe.



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