



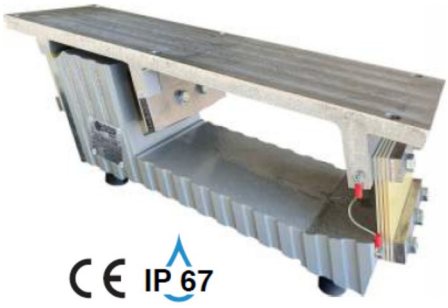
ELECTROMAGNETIC VIBRATORS

CVEM

italvibras g.silingardi FRANCE

CVEM ELECTROMAGNETIC VIBRATORS

CVEM Electromagnetic Feeders are used for conveying, dosing, separating and sprinkling applications. They can be supplied complete with tray or as a bare assembly if a custom designed tray is required. The dimensions for the available trays, and guidance on tray design can be found on page 4.
The intensity of vibration and hence the feed rate is regulated via the electromagnetic controller.
The three different controller options are featured on page 5.
The carcass of the vibrator is made of cast iron painted and epoxy baked at 200 ° C.
The standard series can be offered with EX II 3D certification (Atex Zone 22) upon request.



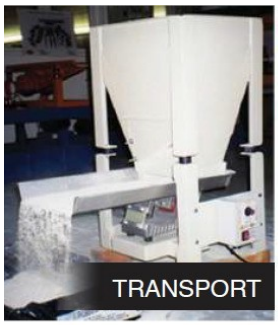




CVEM 25-M-P	II 3 D	Ex mc IIIC T100°C Dc
CVEM 50-M-P	II 3 D	Ex mc IIIC T80°C Dc
CVEM 55-M-P	II 3 D	Ex mc IIIC T80°C Dc
CVEM 60-M-P	II 3 D	Ex mc IIIC T135°C Dc
CVEM 90-M-P	II 3 D	Ex mc IIIC T80°C Dc

Alternative finishes are available upon request, such as RAL5002 Blue FDA / USDA approved paint finish, “but also in stainless steel on certain models.”
Easy to use and no maintenance.
CVEM-P series electromagnetic vibrators are EX II 3D certified (ATEX zone 22) As per ATEX Directive (2014/34 / EU).
They comply with the requirements of European standards with regard in particular to:
- the mechanical protection rating IP67 (EN 60529)
- insulation class F
- Ambient T ° C: from -20 ° C to + 40 ° C
- electrical construction in accordance with standard EN 60204-1 (2018)
- sound level measured in free air: ≤ 40 dB (A) according to IEC
- single-phase supply voltage 230V ± 10% - network frequency 50Hz ± 5%.

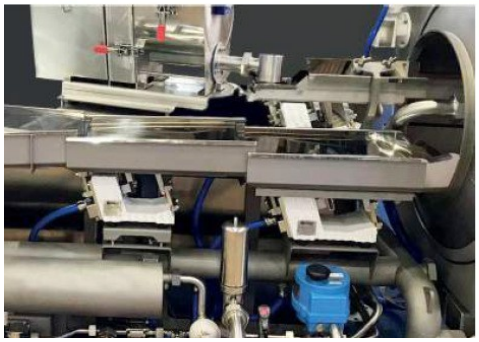
TYPICAL APPLICATIONS









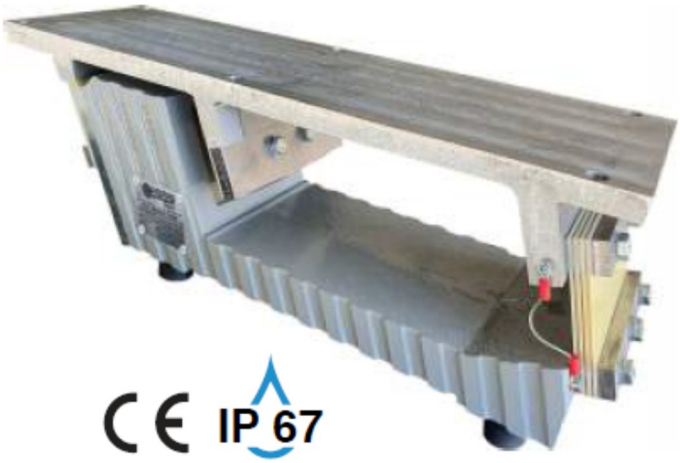






CVEM series electromagnetic feeders are intended for use as component parts of a complete machine. Therefore compliance of the machine with machinery directive 2006/42/EU (and successive amendments) or UK equivalent regulation, must be ensured before the CVEM feeder can be put into operation.

CVEM ELECTROMAGNETIC VIBRATORS



PERFORMANCE DATA					
Model	**CVEM 25-M**	**CVEM 50-M**	**CVEM 55-M**	**CVEM 60-M**	**CVEM 90-M**
Max. Trough Weight (Kg)	2	6	11	17	20
Typical Trough Length x Width (mm) (Guidance only)	250 x 100 300 x 50 400 x 50	500 x 120 550 x 120 600 x 150	700 x 150 700 x 180 800 x 200 900 x 200	1000 x 250 1200 x 200	1300 x 250 1500 x 200
115/1/50 CVEM-M Amps	O.22	1.30	2.17	2.70	5.21
115/1/50 CVEM-M-P Amps	ATEX ONLY available in 230/1/50				
230/1/50 CVEM-M Amps	0.23	0.48	1.21	1.50	3.41
230/1/50 CVEM-M-P Amps	O.17	0.34	0.62	1.24	2.28
Amplitude Peak to Peak (mm)	1.5	2.0	2.0	2.0	2.0
Torque for Spring Clamping kg/m	0.15	1.5	1.5	1.5	1.5
Frequency (vpm)	3000	3000	3000	3000	3000

DIMENSIONS

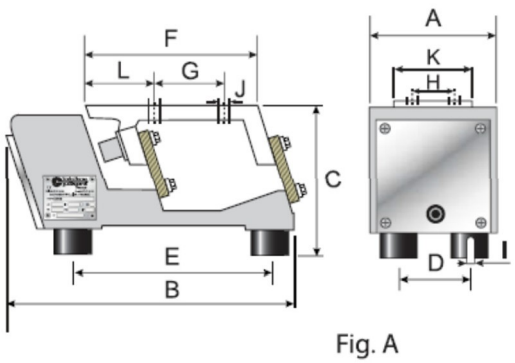


Fig. A

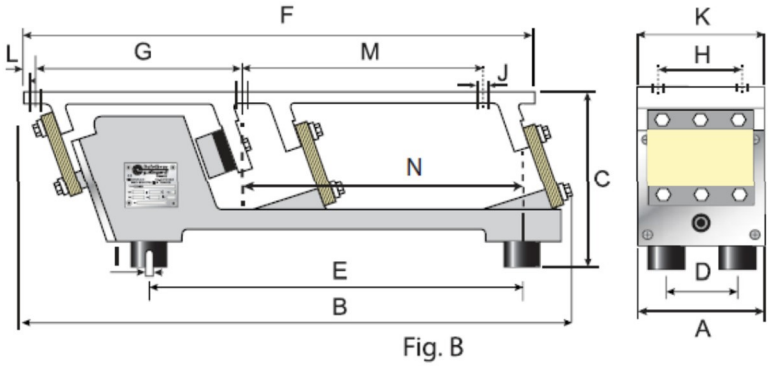
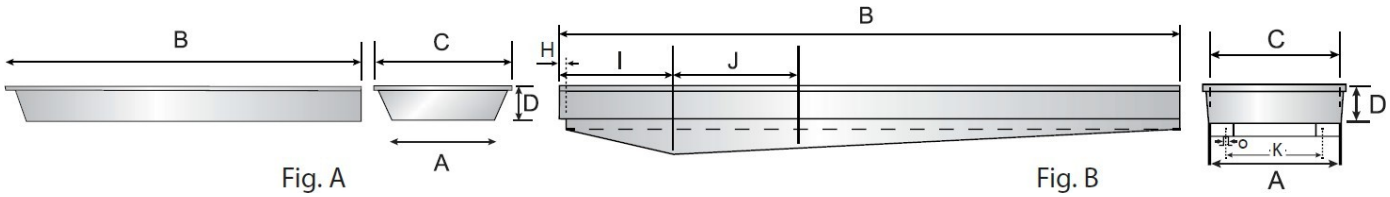


Fig. B

Model	Weight	A	B	C	D	E	F	G	H	I	J	K	L	M	Fig
CVEM 25-M	5	78		124	50	160	135	60	-	M6	Ø7	40	94	-	A
CVEM 50-M	13	135		180	80	145	358	140	45	M8	Ø9	80	112	160	B
CVEM 55-M	20	143		187	100	175	405	160	80	M8	Ø9	117	8	160	B
CVEM 60-M	27	143		190	100	290	480	220	127	M8	Ø9	143	15	220	B
CVEM 90-M	42	172		215	100	410	572	235	154	M8	Ø9	171	15	235	B

CVEM ELECTROMAGNETIC VIBRATORS

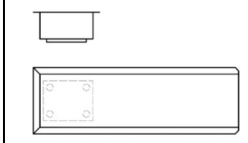
STANDARD TRAYS (Guidance only)



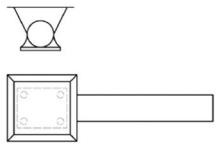
	Vibrator	Weight Kgs	Fig	Dimensions								
				A	B	C	D	H	I	J	K	O
707305	CVEM 25M	1.20	A	100	250	120	39					
707315	CVEM 25M	1.40	A	50	300	75	40					
707325	CVEM 25M	1.60	A	50	400	80	36					
707335	CVEM 50M	3.60	A	120	500	160	48					
707345	CVEM 50M	4.20	A	120	550	160	48					
707355	CVEM 50M	5.20	A	150	600	180	48					
707365	CVEM 55M	6.00	A	150	700	180	48					
707375	CVEM 55M	7.30	A	180	700	220	60					
707385	CVEM 55M	9.60	A	200	800	240	60					
707395	CVEM 55M	10.8	A	200	900	240	60					
707420	CVEM 60M	15.0	B	250	1000	300	60	15	220	220	127	M8
707440	CVEM 60M	16.6	B	200	1200	240	60	15	220	220	127	M8
707460	CVEM 90M	19.4	B	250	1300	300	60	15	235	235	154	M8
707480	CVEM 90M	20.0	B	250	1500	240	60	15	235	235	154	M8

TRAY TYPES AND APPLICATIONS

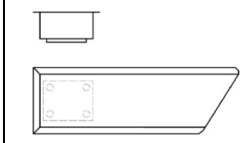
Flat Bottom
Current Stand
Constant tray
width
Vertical or sloped sides



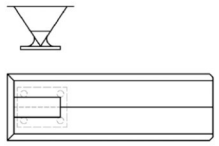
Tubular
For dustproof conveyor.
Maximum filling 1/2 tube
capacity. Slower output ten other
troughs



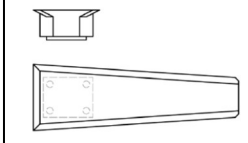
Bevelled Exit
To feed a transport band that is per-
pendicular to the equipment trough



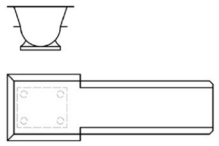
V-Shape
To get a narrow and concentrated
materials at the point of unloading



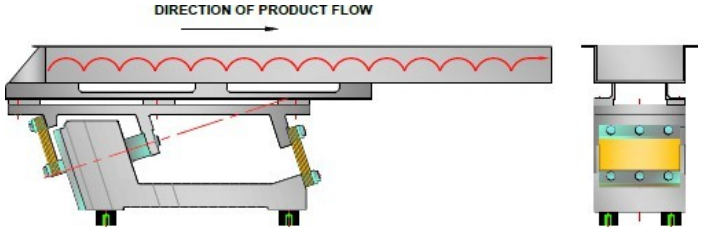
Decreasing Width
To concentrate the materials at the
point of unloading



Semi Circular
Used to transport light and rounded
items . Also with cap



The **CVEM** base assembly is supplied pre tuned for a certain tray mass, as stated in the table. As shown in the image below there is a straight line protruding from the electromagnetic coil through the base of the feeder. This line should directly intersect with the centre of mass of the tray to exert a steady and even amplitude across the length of the tray.



CONTINUOUS VIBRATION AT A POSITIVE DRIVE ANGLE WILL PRODUCE A SERIES OF MICRO-HOPS INTO THE PRODUCT AND CONVEYS IT FORWARD

CVEM ELECTROMAGNETIC VIBRATOR CONTROLLERS

CVEM ELECTROMAGNETIC VIBRATOR CONTROLLERS

CRO3 (R3FSC)	CC03 (CV6F)	FQ1
		

	115 Volt	230 Volt	400 Volt	Manual	0-10v/2-20mA	Freq/Tension
CR03(R3FSC)	**X**	**X**		**X**		
CC03(CV6F)	**X**	**X**	**X**	**X**	**X**	
FQ1	**X**	**X**		**X**	**X**	**X**

Choosing the right Controller

CR03 Simple and Basic Design. Large Knob works simple increasing /decreasing current

CC03 Automatic Control using remote signal

FQ1 Non Standard Applications, Tray may be too long/too heavy can change frequency above/below 50hz

Features:

IP54 Standard

Stabilized Power

Slow or Quick Start

3000/6000 Vibrations/Min

Option:

IP65

CVEM ELECTROMAGNETIC VIBRATOR CONTROLLERS

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ELECTROMAGNETIC VIBRATOR CONTROLLER CR03

Electronic Controller for Electromagnetic Vibratory Feeders

R3FSC 4A 115V 230V IP 65

General

Stabilized, compact and economic controller. This controller is available in the following versions: only circuit, circuit with DIN35 support and external potentiometer, plastic or metallic box.

General Characteristics

Voltage 115/230V, 50/60 Hz • 3000/6000 vpm • Input Double ON/OFF(free contact, signal voltage) • Slow/fast ramp • Reg. vibration min/max • Led ON • Overload function• Line input with schuko plug • Vibrator output with connector.

Applications

Regulation of linear feeders and small bowl feeders till 4 Amps.

Options

Box IP65 (NEMA 4X) • Customized label • Connector for vibrator.

Technical Specs

Feeding Tension:	115/230 V ± 10% – 50/60 Hz
Consumption:	1,5 W max
Max Current:	4 A (RMS)
Min Load:	50 mA (RMS)
Vibration Frequency:	3000/6000 vpm (50 Hz) RC-AC
Ramp Time:	0,2 sec. / 2 sec. (adjustable)
Min Regulation:	80 V ± 30%
Max Regulation:	220 V - 30%
On/Off:	free voltage contact
Protection Degree:	IP55 in box (IP65-NEMA 4/4X)
Storage Temperature:	–15°C / +80°C
Operation Temperature:	–5°C / +55°C
European Norms:	EMC CE
Warranty:	1 year (from date on circuit)



METALLIC BOX
PV R3FSC Z2 STM
140x115x60



METALLIC BOX
PV R3FSC Z2 SM1
150x100x80



PLASTIC BOX
PV R3FSC Z2 STD
165x100x67



CIRCUIT
PV R3FSC A2 STD

Available Versions

Type	Box	Colour	Dimensions	Code	Price €
R3FSC	Circuit		94 x 94 x 35	PV R3FSC A2 STD	
R3FSC/DIN	Circuit		115 x 185 x 50	PV R3FSC D2 STD	
R3FSC	Fire-retardant plastic	RAL 7035	165 x 100 x 67	PV R3FSC Z2 STD	
R3FSC	Aluminum	RAL 7035	140 x 115 x 60	PV R3FSC Z2 STM	
R3FSC	Aluminum	RAL 7035	150 x 100 x 80	PV R3FSC Z2 SM1	

CVEM ELECTROMAGNETIC CONTROLLERS

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ELECTROMAGNETIC VIBRATOR CONTROLLER CC03

Electronic Controller for Electromagnetic Vibratory Feeders

CV6F-CV8F

Amp 6/8 | 230V 400V | 0/10V 4/20mA

General

Stabilized professional controller, compact, economic, current till to 6,3A (CV6F) RMS, 8A RMS(CV8F), in metallic or plastic box, only circuit or circuit with support DIN35 with external potentiometer.

General Characteristics

Voltage (115V) 230V or 400V, 50/60 Hz • 3000/6000 vpm • Automatic input 0/10V-4/20mA • Multiple ON/OFF input • Slow/fast ramp • Reg. vibration min/max Manual/Automatic • Line input with schuko plug • Vibrator output with connector.

Applications

Regulation of linear and bowl feeder till 8 Amps with automatic input (PLC).

Options

Box IP65 (NEMA 4/4X) • INOX Box • Customized label • Double speed • Connector for vibrator • Available with PRX92-PRX99 circuits for NPN-PNP sensor.

Technical Specs

Feeding Tension:	115/230 V ± 10% – 50/60 Hz
Consumption:	1,5 W max
Max Current:	6/8A (RMS)
Min Load:	50 mA (RMS)
Vibration Frequency:	3000/6000 vpm (50 Hz) RC-AC
Ramp Time:	0,2 sec. / 2 sec. (adjustable)
Min Regulation:	80 V ± 30%
Max Regulation:	220 V - 30%
On/Off:	free voltage contact
Protection Degree:	IP55 in box (IP65-NEMA4-4X)
Storage Temperature:	–25 °C / +80°C
Operation Temperature:	–15°C / +55°C
European Norms:	EMC CE
Warranty:	1 year (from date on circuit)



METALLIC BOX CV6F
PV CV6FX Z2 STM
165x140x65



METALLIC BOX CV6F/CV8F
PV CV8FX Z2 SM1
PV CV10F Z2 SM1
195x130x90



PLASTIC BOX CV6/F
PV CV6FX Z2 STP
165x130x70



CIRCUIT CV6F/CV8F
PV CV6FX D2 STD

Available Versions

Type	Box	Colour	Dimensions	Code	Price €
CV6F	Fire-retardant plastic	RAL 7035	165 x 130 x 70	PV CV6FX Z2 STP	
CV6F	Aluminum	GREY RAL 7035	165 x 140 x 65	PV CV6FX Z2 STM	
CV8F	Metallic Box	GREY	240 x 130 x 110	PV CV6FX Z2 STD	
CV6F-CV8F	Circuit		145 x 115 x 45	PV CV6(8)FX A2 STD	
CV6F-CV8F/DIN35	Circuit		145 x 140 x 55	PV CV6(8)FX D2 STD	
CV6F-CV8F	Aluminum	RAL 7035	195 x 130 x 90	PV CV6(8)FX Z2 SM1	

CVEM ELECTROMAGNETIC VIBRATOR CONTROLLERS

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ELECTROMAGNETIC VIBRATOR CONTROLLER FQ1

Electronic Controller for Electromagnetic Vibratory Feeders

▶ FQ1 PWM 6A 115V 230V DIGITAL

General

This controller is available in metallic box with two potentiometers and display, with keys and display, with a potentiometer without dispaly or in circuit with DIN35.

General Characteristics

Voltage (115V) 230V, 50/60 Hz • 3000/6000 vpm • Double Input ON/OFF • Soft/fast ramp • Manual Regulation amplitude/frequency (30/80Hz - 80/130Hz) min/max • Limitation Max Output current • Line input with schuko plug • Vibrator output with connector - Delay 8 sec max On/Off vibrator with sensor NPN/PNP or relay contact - Automatic Input from PLC 0/10V-0/20mA - Status relay

Applications

Digital regulation of linear and bowl feeder till 6,3 Amps - The FQ1 PWM allows optimizing operation of the vibratory feeder by searching for its resonance frequency (max performance) thereby eliminating its lengthy and difficult mechanical calibration.

Options

Customized label • Connector for vibrator • Frequency Meter.

Technical Specs

Feeding Tension:	115V or 230V ± 10% 50/60Hz
Consumption:	2,5 W max
Max Current:	6,3 A (RMS)
Min Load:	50 mA (RMS)
Vibration Frequency:	30/80Hz(50Hz) - 80/130Hz(100Hz)
Time of Ramp:	1 sec.
Input Sensor:	NPN/PNP or Free voltage contact
Automatic Input:	0/10V-0/20mA (with 470 Ohm)
On/Off:	free contact
Delay ON/OFF:	0/8 sec
Protection Degree:	IP65 in box (NEMA4-4X)
Storage Temperature:	-15°C./ + 80°C.
Operation Temperature:	–5°C / +55°C
Altitude:	till to 2000 meters
European Norms:	EMC CE
Warranty:	1 year (from date on circuit)



METALLIC BOX FQ1 PWM
PV FQPPO Z2 STD
195x130x90



METALLIC BOX FQ1 PWM
PV FQPKE Z2 STK
195x130x90



METALLIC BOX FQ1 PWM
PV FQPBA Z2
STB195x130x90



CIRCUIT DIN35
PV FQPPO D2 STD

Available Versions

Type	Box	Colour	Dimensions	Code	Price €
FQ1PWMB	Metallic	RAL 7035	195 x 130 x 90	PV FQ1PW Z2 STB	
FQ1PWMB	Circuit Din		195 x 120 x 50	PV FQ1PW D2 STB	
FQ1PWM	Metallic	RAL 7035	195 x 130 x 90	PV FQ1PW Z2 STD	
FQ1PWM	Circuit Din		195 x 120 x 50	PV FQ1PW D2 STD	
FQ1PWMK	Metallic	RAL 7035	195 x 130 x 90	PV FQ1PW Z2 STK	



MVSI

The most extensive range of industrial electric vibrators on the market.
Approved for potentially explosive dust atmospheres (ATEX, IECEx, GOST).
Range from 0 to 67200 lbs.



MVSI-TS

MVSI industrial electric vibrators with split covers.



MVSI-ACC

MVSI industrial electric vibrators for axial coupling.



MVSI-E

"Ex e" increased safety electric vibrators for potentially explosive atmosphere (ATEX, IECEx, GOST).
Range up to 24550 lbs.



MVLS

Low Speed electric industrial vibrators.
Range up to 18000 lbs centrifugal force.
RPM from 1200 to 500.



CDX

"Ex d" explosion-proof industrial electric vibrators for operation in potentially explosive atmospheres (UL, CSA, ATEX, IECEx, GOST).
Range up to 49250 lbs.



MVTX

"Ex d" explosion-proof screen vibrators for operation in potentially explosive atmospheres.
Bear UL, cUL, ATEX and IECEx marking.
Range up to 17450 lbs.



MVCC

Direct current vibrators (12 or 24 V) designed for continuous duty on mobile machines.
Range from 0 to 3350 lbs.



MVSS

Electric industrial vibrators in stainless steel AISI 316L for the chemical, petroleum chemistry, food, pharmaceutical processing sectors.
Range from 0 to 9520 lbs.



MICRO

Electric vibrators designed for continuous service in processes where a lower centrifugal force is required.
Range from 0 to 143 lbs.



M3

Electric industrial vibrators with multi-holes mounting feet and minimum dimensions.
Range up to 684 lbs.



ITV-VR

Variable high frequency electric vibrators with fixed or cradle connection for industrial building sector. Range from 0 to 19800 lbs.



ITVAF

High frequency electric vibrators with fixed or cradle connection for industrial building sector. Range from 0 to 19800 lbs.



VU

Unidirectional linear motion exciters designed for medium and large size vibrating machines. Range up to 6400 in-lbs (102000 lbs).



MTF

Vertical electric vibrators with side flange.
Range from 0 to 5750 lbs.



MTF-E

"Ex e" increased safety vertical electric vibrators with side flange for potentially explosive atmosphere (ATEX, IECEx, GOST).



VB

Vertical electric vibrators with double tapered flange.
Range from 0 to 11000 lbs.



VB-E

Vertical electric vibrators with side flange.
Range from 0 to 5750 lbs.



MVB

Vertical electric vibrators with side flange and shaft projecting on both sides.
Range from 0 to 15400 lbs.



MVB-FLC

Vertical electric vibrators with central flange and shaft projecting on both sides.
Range from 0 to 15400 lbs.



MVB-E

"Ex e" increased safety vertical electric vibrators with side flange and shaft projecting on both sides, for potentially explosive atmosphere (ATEX, IECEx, GOST).



MVB-E-FLC

"Ex e" increased safety vertical electric vibrators with central flange and shaft projecting on both sides, for potentially explosive atmosphere (ATEX, IECEx, GOST).