

Application

The ActiFlow™ bulk solid activator reliably prevents bridge-building of cohesive bulk materials, eliminating the need for mechanical vertical agitation. The ActiFlow can be used with all Coperion K-Tron loss-in-weight modular feeders equipped with a Coperion K-Tron Control Module (KCM) and standard hopper; 4D/6D hoppers up to 320 dm³ (11.3 ft³) and 10D 250 dm³ (8.8 ft³).

Design

ActiFlow is a non product contact device, consisting of the ActiFlow device and the ActiFlow Control unit. The ActiFlow device is bolted to the outside of the rear wall of the extension hopper, above the feeder. Together with the ActiFlow Control unit, it continuously activates the material inside the hopper with an optimized frequency and amplitude. ActiFlow is self-tuning: the KCM constantly monitors the system and regulates the ActiFlow, adjusting the frequency and amplitude to compensate for changes in hopper fill level or material flow, thus preventing bridges or rat holes before they can form. Working in concert with Coperion K-Tron's patented Smart Force Transducer (SFT) load cells, advanced filtering algorithms are used to screen out vibrations, ensuring an accurate weight signal, even with the ActiFlow running. Only the ActiFlow device is added to the tare of the feeder setup. This equipment conforms to CE standards regarding EMC and safety and is also listed by an NRTL as complying with the electrical safety standard UL 61010-1.

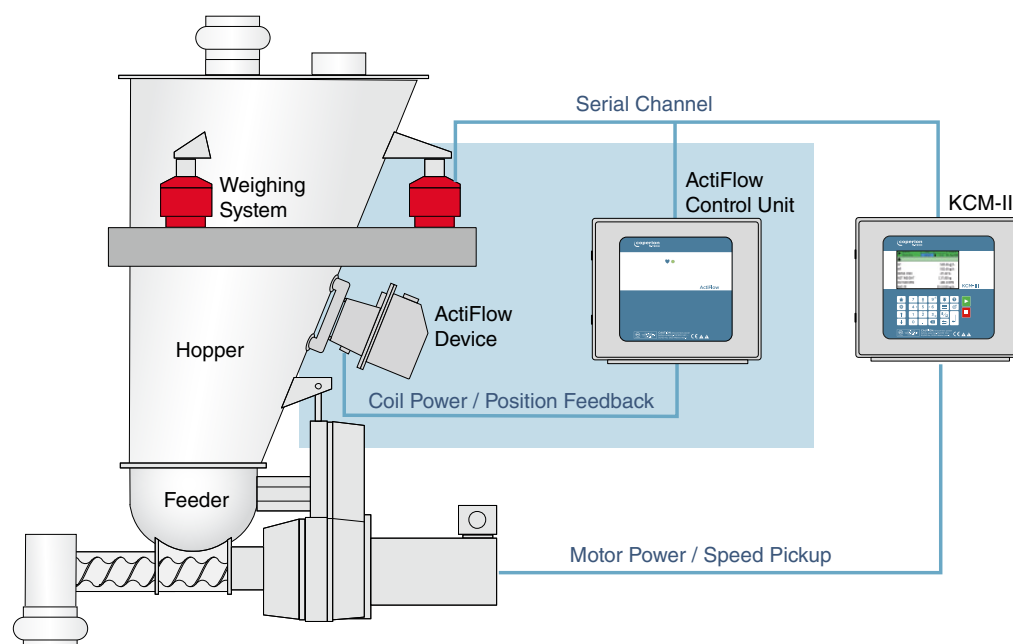
Mechanical Options

- ActiFlow Device in sanitary design for use in pharmaceutical applications (for platform scale configurations only)



The ActiFlow device is available in a standard version for general use (above) and a pharma version (below).

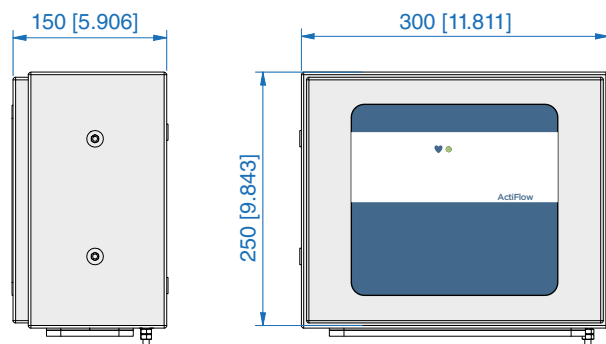
ActiFlow controller



Technical Data

Criteria	ActiFlow Device	ActiFlow Control Unit
Material of construction - Standard version	Cast aluminum painted, stainless steel (non product contact)	Stainless steel
Material of construction - Pharma (hygienic) version	Stainless steel	Stainless steel
Operating temperature range	0...50°C [32...122°F]	0...50°C [32...122°F]
Storage temperature range	-25...80°C [-13...176°F]	-25...80°C [-13...176°F]
Suitability for bulk materials	Most materials	n.a.
Impact on the bulk material	There is a minimal risk of product segregation with blended materials.	n.a.
Space requirement above the feeder	None	n.a.
Influence on feeding accuracy	Improved material flow	n.a.
Influence on feed rates	For certain bulk materials higher feed rates	n.a.
Maintenance	Maintenance free	Maintenance free
Hopper discharge	100%	n.a.
Restrictions on inlet/vent placement in hopper lid	None	n.a.
Hopper sizes with single ActiFlow	4D hopper: 50 and 80 dm ³ 6D hopper: 110 and 180 dm ³	n.a.
Hopper sizes with double ActiFlow	6D hopper: 250 and 320 dm ³ 10D hopper: 250 dm ³	n.a.
Unit weight	9.6 kg [21.6 lb]	9.5 kg [20.9 lb]
Cable length ActiFlow Device to Control Unit	standard 3 m [10 ft] max. 10 m [33 ft] with add'l junction box	n.a.
CE compliance	Yes	Yes
Max. power output	n.a.	0.9 kVA
Power supply ActiFlow control	n.a.	115 VAC, 50-60 Hz 230 VAC, 50-60 Hz
Enclosure rating	NEMA 4, IP65	IP65
Hazardous Location Options (see sheet I-000002)	NEC Class II, Div. 2, Group F & G ATEX 3D (outside), 2G 2D (outside) ActiFlow XPC2 for ATEX 2G 2D: IECEx SEV 22.0039X	NEC Class II, Div. 2, Group F & G ATEX 3D (outside) IECEx SEV 21.0003X CCC Certificate (China)

Dimensions ActiFlow Controller mm [in]



Available cable glands sizes: 8x M16 and 4x M20