

SENSiQ[®] Fixed Mount (SFM)

Pivot for load cell applications with nominal loads from 1 t ... 470 t

- Simple, rugged and flat design
- Dimensions compatible to Elastomer Mount SEM and Secure Mount SSM
- Minimal reaction to lateral forces
- Ease of installation
- Stainless steel (SFM 1 t ... 22 t) or S235 (SFM 33 t ... 470 t)
- Design and manufacturing certified after DIN EN 1090-2 EXC



Application

Fixed Mount are designed for simple weighing tasks, e.g. hopper level measurement.

Combined with one or two load cells (partial load measurement), the Fixed Mount offer a favourably priced but sufficiently accurate solution, particularly for applications with a defined centre of gravity, e.g. hoppers with liquid contents.

Construction

The Fixed Mount consists of a double T girder reinforced with ribs. The reinforcement ribs ensure a defined bending zone and increase the resistance to lateral forces, so that normally no additional tie-rods are required.

The Fixed Mount of the SFM type is dimensionally compatible with the SEM Elastomer Mounts, so that no height adjustment is necessary when the two types of mount are combined.

The mounts can be adjusted in height with the use of shims by max. 5 mm (SFM 330 shims by max. 8 mm, SFM 470 shims by max. 10 mm).

When using in combination with the Secure Mount SSM the height adjustment of the SFM is provided via optional compensation plates.

Normally, the SFM mounts are welded to the existing construction. Connecting surfaces without shims can also be screwed on.

Function

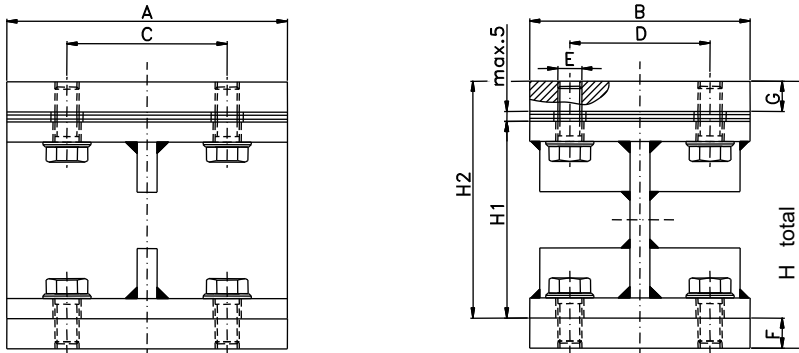
The deflection for measurement of load cell and mount causes a restoring force in the bending zone of the Fixed Mount, acting on load cell but being compensated upon calibration.

Depending on the point of application, significant weighing errors can be produced through horizontal forces acting vertically to the tilting line.

Therefore it is essential that the Fixed Mount be mounted on a common tilting line as shown in the installation drawings.

The load distribution between Fixed Mount and load cells highly depends on the symmetry of the load carrier/hopper and the horizontal forces (wind, pipe connections, agitator), particularly in the case of 4 support points. In contrast to a full load measurement using load cells, these forces have the potential to cause a significantly higher weighing error.

Fixed Mount 1 t ... 470 t



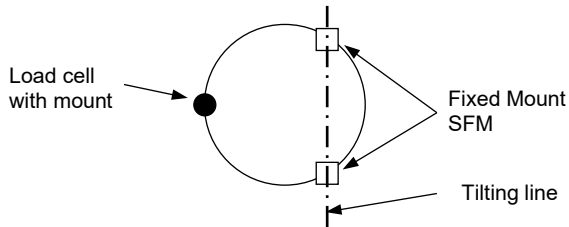
Dimensions

Type	Nominal load [t]	Weight [kg]	A	B	C	D	E	H1	H2	H total	F	G	Q1 = Q2 [kN]
SFM 4.7	1 ... 4,7	9	140	110	80	70	M12	98	113 +5	128 +5	15	15	5
SFM 22	10 ... 22	27	250	140	150	90	M16	130	150 +5	170 +5	20	20	22
SFM 33	33	46	270	180	180	110	M20	168	193 +5	218 +5	25	25	33
SFM 47	47	47	270	180	180	110	M20	168	198 +5	248 +5	50	30	47
SFM 68	68	94	300	270	180	180	M24	220	245 +5	270 +5	25	25	68
SFM 100	100	113	300	270	180	180	M24	220	240 +5	300 +5	60	20	100
SFM 150	150	176	380	280	300	190	M24	320	355 +5	390 +5	35	35	150
SFM 220	220	251	450	300	330	200	M30	373	418 +5	463 +5	45	45	220
SFM 330	330	400	500	350	380	220	M36	425	475 +8	545 +8	60	60	330
SFM 470	470	835	630	450	450	280	M42	455	515 +10	635 +10	120	60	470

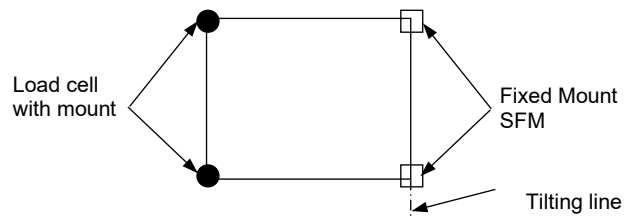
- Weight in kg including all shims
- Total height H2/H up to max. 5 mm (8 mm at 330 t, 10 mm at 470 t) exactly like SSM and SEM, adjustable in height using intermediate plates
- Q1 max. lateral force parallel to tilting line
- Q2 max. lateral force vertical to tilting line

Support point arrangement

Round hopper with 2 x SFM and 1 LC



Rectangular hopper with 2 x SFM and 2 LC



Items supplied (SFM complete with 5 mm shims; SFM 330 8 mm; SFM 470 10 mm)

Type	Ordering no. SFM-height as SEM *)	Including weld-on plates	Height	Ordering no. SFM-height as SSM *)	Including weld-on plates	Height
SFM 4,7	V021894.B02	-	H1	V021894.B01	above	H2
SFM 22	V021837.B02	-	H1	V021837.B01	above	H2
SFM 33	V021776.B02	-	H1	V021776.B01	above	H2
SFM 47	V021995.B02	above	H2	V021995.B01	above and down	H total
SFM 68	V021974.B02	-	H1	V021974.B01	above and down	H total
SFM 100	V021777.B02	above	H2	V021777.B01	above and down	H total
SFM 150	V022583.B02	-	H1	V022583.B01	above and down	H total
SFM 220	V022592.B02	-	H1	V022592.B01	above and down	H total
SFM 330	V038093.B03	-	H1	V038093.B07	above and down	H total
SFM 470	V049185.B02	above	H2	V049185.B04	above and down	H total

*) see data sheet BV-D2044

**) see data sheet BV-D2083

Also available:

- SENSiQ™ Secure Mount 0,25 t ... 470 t (BV-D2083)
- SENSiQ™ Secure Mount PLUS 10 t ... 330 t (BV-D2444)
- SENSiQ™ Pendulum Mount 1 t ... 100 t (BV-D2025)
- SENSiQ™ Elastomer Mount 0,25 t ... 470 t (BV-D2044)
- SENSiQ™ Fixed Mount PLUS 10 t ... 330 t (BV-D2442)

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