

- Ext. communication to Host System
- A Feeder
- B Weighing System
- C Control Module
- D Operator Interface

Each Coperion K-Tron Weigh Feeder consists of the components A, B, C and D.

Component B is specified here.

Application

This K-SFS-I scale is designed for use with Coperion K-Tron Compact Line feeders. It is equipped with a patented Smart Force Transducer (SFT) sensor, which provides accurate, stable and reliable digital weight measurement under a broad range of operating conditions.

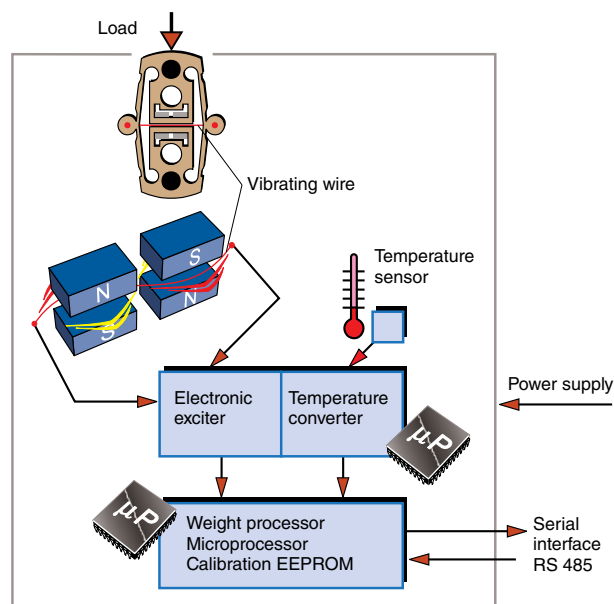


Main Features

- Direct digital weighing
- Onboard microcontroller
- Excellent repeatability and stability
- High resolution 1:8,000,000 in 20 ms
- High tolerance to vibration and electrical noise
- Electronic linearization
- Electronic temperature compensation
- Stiff, rugged construction
- Serial channel interface RS 485
- Addressable two-way communication
- Built-in overload protection of +100%
- Built-in underload protection of -50%

Vibrating Wire Principle of Operation

The SFT exploits the dependency of a vibrating wire's resonant frequency on its tension to measure applied loads. Through mechanical means the applied load is transmitted to the wire, causing a change in its resonant frequency, which is accurately measured and from which the weight of the applied load is computed by the onboard microprocessor. A fully calibrated (linearized, spanned and temperature compensated) signal is transmitted via RS 485 serial communication to the controller.



Technical Data

Load range:	120, 240 N [12, 24 kg] (various preload configurations available)
Combined error:	< ± 0,03% (Note: all percentage values are in relation to load capacity)
Resolution:	1 : 8,000,000 in 20 ms
Repeatability:	<= 0.001% (standard deviation of 30 measurements; measuring time 2 s.)
Temperature drift (per °Kelvin):	SPAN: 0.002% (-10 ... 60°C [14 ... 140°F]) ZERO: 0.003% (-10 ... 60°C [14 ... 140°F])
Operating temperature range:	-20 to 60°C [-4 to 140°F]
Storage temperature:	-25 to 80°C [-13 to 176°F]
Power supply:	7.2 ... 12.5 VDC
Power consumption:	max. 0.36 W at 12 VDC
Communication distance:	max. 500 m [1640 ft]
Output:	RS 485
Materials of construction enclosure:	Stainless steel DIN 1.4301 [AISI 304]
Enclosure rating:	IP65, NEMA 4
Weight:	7 kg [15.4 lb]
Hazardous location options:	
ATEX	K-SFS-I XPC3
NEC	
Warranty:	Full five-year warranty from date of shipment

⊕ II 3D Ex tc IIIC T65°C Dc

Class II, Division 2, Groups F & G

Dimensions mm (in)



Caution: these measurements are for general reference only. Please consult dimensional drawing for exact measurements