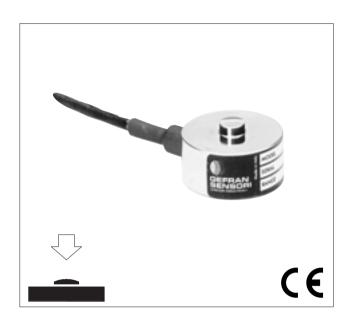
GEFRAN

AM

MINIATURE FORCE TRANSDUCER FOR COMPRESSION APPLICATIONS



Main features

• Range of measurement: from 5 to 20 kN

Accuracy class: 1%

· All stainless steel construction

Corrosion resistant

• Grade of protection: IP65 (DIN 40050)

• Small size

The AM force transducers series have been designed to measure static and dynamic compression forces.

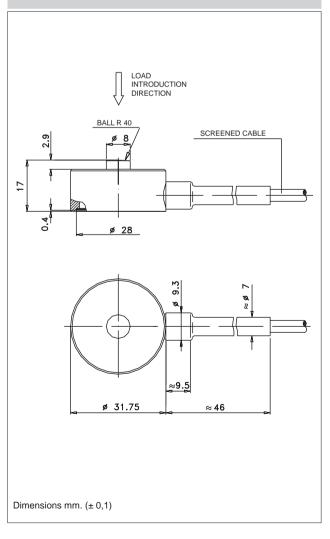
They are particularly suitable for monitoring pounding operations in compression which require a rugged transducer, insensitive to high resonance frequencies caused by non-homogeneous leads in dynamic sequences.

The accuracy and the stability are not affected by continuous cycling under harsh conditions even with dynamic loads. The small size of the AM force transducers makes them ideal for retrofitting in existing equipment.

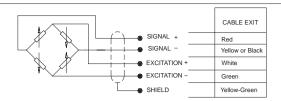
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Nominal full scale load (Ln) Nominal output at FSO Output tolerance at Ln Cembined errors: Non linearity Histeresis, Repeatibility Creep (after 30 min. at Ln) Zero load out of balance signal Thermal drift in Sensitivity compensated Zero range Calibration Nominal bridge resistance Solothm Nominal supply voltage Nominal supply voltage Tompensated temperature range Compensated temperature range Storage temperature range Permitted dynamic load Maximum applicable load Rupture load Maximum elastic deformation at Ln Grade of protection (DIN40050) Storage temperature range SumV/V 2± 5% FSO 2± 1% FSO 2± 1% FSO 2± 10,02% FSO°C 2± 0,02% FSO°C 2± 0,04% FSO°C 2± 0,02% FSO°C 2± 0,02% FSO°C 2± 0,04% FSO°C 2± 0	Accuracy	1%		
Output tolerance at Ln Combined errors: Non linearity Histeresis, Repeatibility Creep (after 30 min. at Ln) Zero load out of balance signal Thermal drift in Sensitivity compensated Zero range Calibration Nominal bridge resistance South Maximum supply voltage Maximum temperature range Storage temperature range Permitted dynamic load Maximum static lateral load Maximum elastic deformation at Ln ±5% FSO ±5% FSO"C <a a="" c<="" href="mailto:±0,02% FSO"> <a href<="" td=""><td>Nominal full scale load (Ln)</td><td colspan="3">520 kN</td>	Nominal full scale load (Ln)	520 kN		
Combined errors: Non linearity Histeresis, Repeatibility Creep (after 30 min. at Ln) Zero load out of balance signal Thermal drift in Sensitivity compensated Zero Calibration Nominal bridge resistance Isolation resistance Nominal supply voltage Maximum supply voltage Tompensated temperature range Storage temperature range Permitted dynamic load Maximum static lateral load Maximum elastic deformation at Ln A ± 1% FSO	Nominal output at FSO	2mV/V		
Histeresis, Repeatibility Creep (after 30 min. at Ln) Zero load out of balance signal Thermal drift in Sensitivity compensated Zero range Calibration Nominal bridge resistance Isolation resistance Nominal supply voltage Maximum supply voltage Compensated temperature range Storage temperature range Permitted static load Rupture load Maximum static lateral load Maximum elastic deformation at Ln * ± 0,02% FSO°C * ± 0,04% FSO°C * < ± 0,04% FSO°C *	Output tolerance at Ln	<± 5% FSO		
Zero load out of balance signal Thermal drift in Sensitivity compensated Zero range Calibration Nominal bridge resistance 350 Ohm Isolation resistance > 10 GOhm Nominal supply voltage 10 V Maximum supply voltage 15 V Compensated temperature range -20+50°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load 150% Ln Rupture load 40% Ln Maximum elastic deformation at Ln V ± 0,02% FSO°C < ± 0,04% FSO°C < ± 0,0		< ± 1% FSO		
Thermal drift in Sensitivity compensated Zero Zero Calibration Sensitivity compensated Zero Sensitivity Calibration Sensitivity Calibration Sensitivity Calibration Sensitivity Calibration Sensitivity Calibration Sensitivity Calibration Sensitivity Sensitivit	Creep (after 30 min. at Ln)	< ± 0,2% FSO		
compensated range Zero Calibration < ± 0,04% FSO°C	Zero load out of balance signal	< ± 1% FSO		
Isolation resistance > 10 GOhm Nominal supply voltage 10 V Maximum supply voltage 15 V Compensated temperature range -20+50°C Maximum temperature range -20+60°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load > 300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	compensated Zero			
Nominal supply voltage Maximum supply voltage Compensated temperature range -20+50°C Maximum temperature range -20+60°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load Maximum applicable load Rupture load Maximum static lateral load Maximum elastic deformation at Ln 10 V 15 V 16 V 16 V 17 C 18 V 18 V 18 V 18 O°C 18	Nominal bridge resistance	350 Ohm		
Maximum supply voltage Compensated temperature range -20+50°C Maximum temperature range -20+60°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load Maximum applicable load Rupture load Maximum static lateral load Maximum elastic deformation at Ln 15 V 15 V 16 V 18 V	Isolation resistance	> 10 GOhm		
Compensated temperature range -20+50°C Maximum temperature range -20+60°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load >300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln <0,2 mm	Nominal supply voltage	10 V		
Maximum temperature range -20+60°C Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load >300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln <0,2 mm	Maximum supply voltage	15 V		
Storage temperature range -30+80°C Permitted static load 130% Ln Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load >300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln <0,2 mm	Compensated temperature range	-20+50°C		
Permitted static load 130% Ln Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load > 300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	Maximum temperature range	-20+60°C		
Permitted dynamic load 100% Ln Maximum applicable load 150% Ln Rupture load > 300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	Storage temperature range	-30+80°C		
Maximum applicable load 150% Ln Rupture load > 300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	Permitted static load	130% Ln		
Rupture load > 300% Ln Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	Permitted dynamic load	100% Ln		
Maximum static lateral load 40% Ln Maximum elastic deformation at Ln < 0,2 mm	Maximum applicable load	150% Ln		
Maximum elastic deformation at Ln < 0,2 mm	Rupture load	> 300% Ln		
	Maximum static lateral load	40% Ln		
Grade of protection (DIN40050) IP65	Maximum elastic deformation at Ln	< 0,2 mm		
1	Grade of protection (DIN40050)	IP65		
Electr. connections screened cable 4x0,15 / 2 m.	Electr. connections screened cable	4x0,15 / 2 m.		
Elastic element material Stainless steel	Elastic element material	Stainless steel		

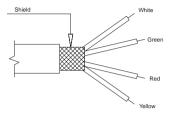
MECHANICAL DIMENSIONS



ELECTRICAL CONNECTIONS

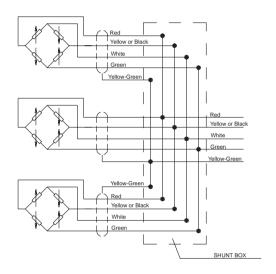


4x0.25 Screened cable



* The screen is isolated from the transducer body. It is recommended that the ground is connected at the instrument end.

Cells connected in parallel



In systems that use several cells, the parallel connection automatically sums the loads on each individual cell.

Using this method of measurement, the maximum load will be the sum of the loads on the individual cells and the sensitivity will be the average value of these cells. It is important that the user ensures that no cell is stessed beyond its maximum rating under any load condition.

CONVERSION TABLE

Kg	N	Lb	
1	9.807	2.205	
0.102	1	0.225	
0.454	4.448	1	

OPTIONAL ACCESSORIES ORDER CODE

Force transducer AM MEASUREMENT RANGE (kN) 0 - 5 KN5U 0 - 10 KN1D 0 - 20 KN2D If request, it is possible to supply models with non-standard mechanical and/or electrical features.

Ex.: AM - KN5U AM force transducer with range of measurement 0 - 5 kN.

