

FEATURES

- Linearity: <math><0.1\%</math> F.S.
- Integrated Amplifier optional
- Optional: Load Button

APPLICATIONS

- Process Control Equipment
- Weighing Calibration Tool
- Robotics and Effectors
- Laboratory and Research
- Calibration Presses

FN2420

Compression Load Cell

SPECIFICATIONS

- **Compression Design**
- **Ranges from 20 kN to 5000 kN [4.5 klb to 1124 klb]**
- **Very High Stiffness**
- **Optional Build in Amplifier**

The **FN2420** is a high accuracy compression load cell often used in applications involving calibration presses. It comes with many options, including a concave loading fixture and an integrated amplifier for high-level output. The **FN2420**'s design and optional concave loading fixture minimize transverse effects. Constructed in stainless steel, the sensor is suitable for use in many hostile environments and can be customized for increased protection.

With a long-standing experience as a designer and manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

To meet your needs, we also offer extensive turnkey systems. The matched components (sensor, power, amplifier and digital display) are formatted, calibrated and ready for immediate use.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

PERFORMANCE SPECIFICATIONS (typical values at 23°C)

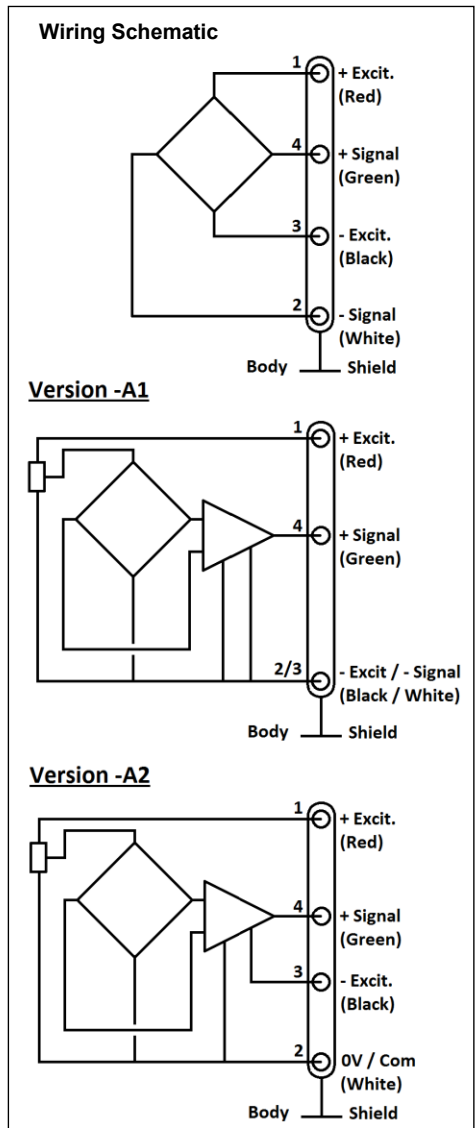
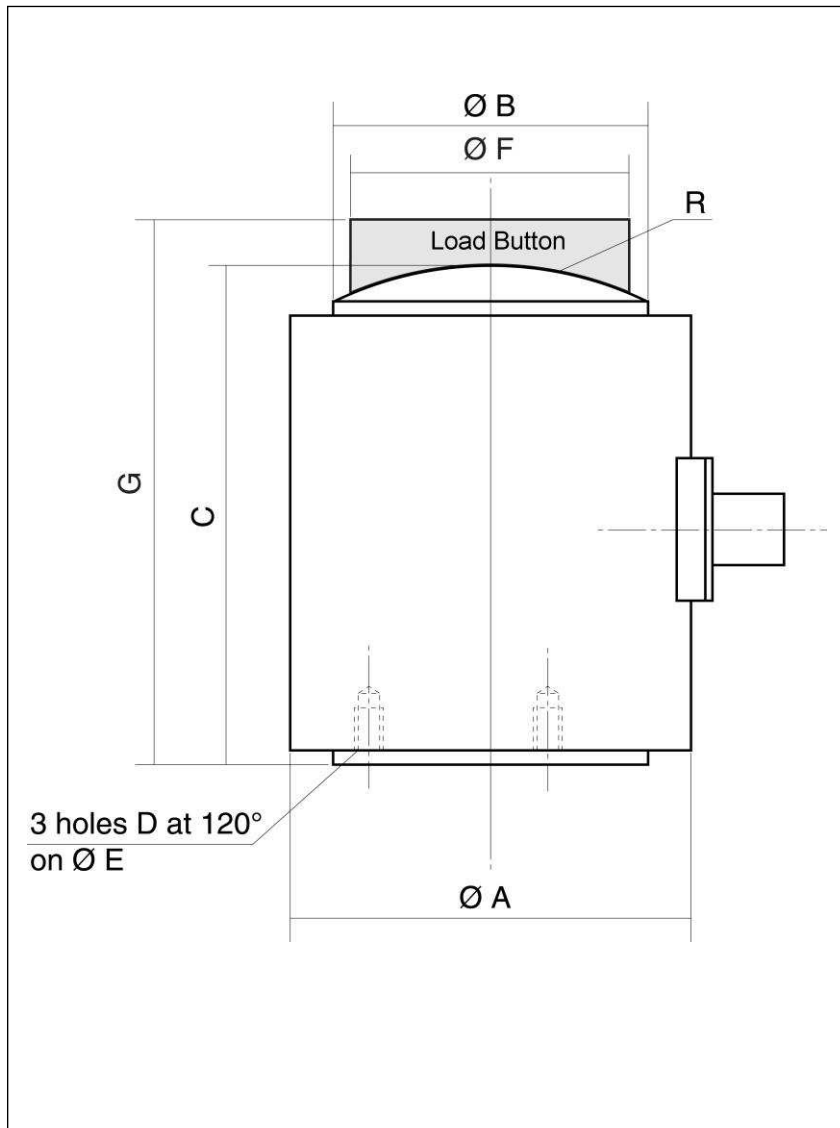
Ranges (FS) (N)	20k	50k	100k	200k	500k	1000k	2000k	3000k	5000k
Ranges (lbf)	4.50 k	11.2 k	22.5 k	45.0 k	112 k	225 k	450 k	674 k	1124 k
Material	Stainless Steel								
Stiffness (N/m)	6.5E+08	1.3E+09	2.0E+09	3.1E+09	5.7E+09	9.0E+09	1.3E+10	1.6E+10	2.0E+10
Stiffness (lbf/ft)	4.4E+07	9.0E+07	1.4E+08	2.1E+08	3.9E+08	6.2E+08	9.0E+08	1.1E+09	1.4E+09
Standard electrical output	4B JAEGER				7B JAEGER				

Version	Standard	A1	A2
Power supply	10Vdc	10Vdc to 30Vdc	±12Vdc to ±18Vdc
Sensitivity (FSO)	20 mV	4Vdc ±0.2V	5Vdc ±0.25V
Offset	<±1 mV	0.5Vdc ±0.2V	0V ±0.25V
Input Impedance / Consumption	350 to 700 ohms	<30mA	
Output Impedance	350 to 700 ohms	1000 ohms	
Overrange Without Damage	1.5x FS		
Overrange Without Destruction	3x FS		
Linearity & hysteresis	< ±0.25% FS		
Operating Temperature Range (OTR)	-20°C to +80°C (-4°F to 176°F)		
Compensated Temperature Range (CTR)	0°C to +60°C (32°F to 140°F)		
Thermal Zero Shift in CTR	< 0.5% FS/50°C		
Thermal Sensitivity Shift in CTR	< 1%/50°C		
Insulation	> 1000 Mohms		
Protection Index	IP50		

Notes

1. Signal goes negative in compression with standard wiring configuration
2. Electrical Termination: Connector output including mate
3. Materials: Body in stainless steel, aluminum cover
4. Output impedance < 100Ω on request
5. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



Dimensions in mm [inch]

F.S. Ranges in N	20k		50k		100k		200k		500k		1000k		2000k		3000k		5000k	
A	30	[1.18]	35	[1.38]	42	[1.65]	54	[2.13]	78	[3.07]	98	[3.86]	128	[5.04]	154	[6.06]	196	[7.72]
B	20	[0.79]	25	[0.98]	32	[1.26]	44	[1.73]	68	[2.68]	87	[3.43]	112	[4.41]	134	[5.28]	172	[6.77]
C	40	[1.57]	45	[1.77]	55	[2.17]	65	[2.56]	90	[3.54]	110	[4.33]	140	[5.51]	170	[6.69]	220	[8.66]
D (Thread)	M2.5		M3		M4		M4		M6		M6		M6		M8		M10	
E	15	[0.59]	20	[0.79]	25	[0.98]	35	[1.38]	55	[2.17]	75	[2.95]	100	[3.94]	120	[4.72]	150	[5.91]
R	30	[1.18]	40	[1.57]	50	[1.97]	80	[3.15]	100	[3.94]	120	[4.72]	200	[7.87]	300	[11.81]	400	[15.75]
F*	15	[0.59]	19	[0.75]	26	[1.02]	35	[1.38]	54	[2.13]	69	[2.72]	98	[3.86]	118	[4.65]	129	[5.08]
G*	50	[1.97]	55	[2.17]	70	[2.76]	85	[3.35]	115	[4.53]	140	[5.51]	180	[7.09]	215	[8.46]	275	[10.83]

*Load Button

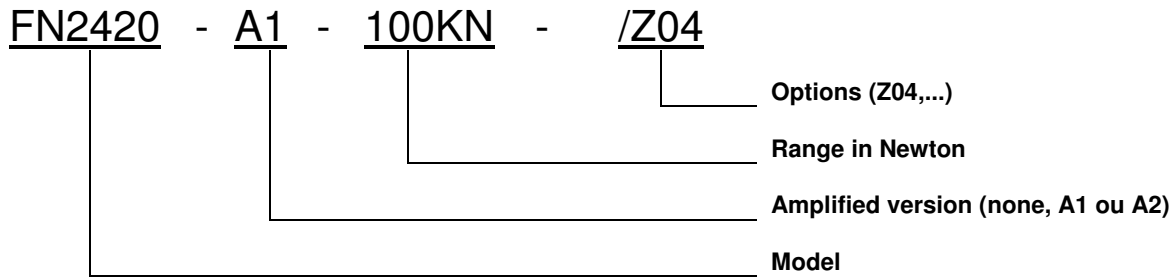
FN2420

Compression Load Cell

OPTIONS

Z04	CTR -40°C to +90°C (-40°F to 194°F) (OTR -40°C to +90°C (-40°F to 194°F))
Z35	CTR +20°C to +120°C (68°F to 248°F) (OTR -20°C to +120°C (-4°F to 248°F))
Z36	CTR +20 to +150°C (68°F to 302°F) (OTR -20°C to +150°C (-4°F to 302°F)) - not available with A1/A2

ORDERING INFO



SUPPLIED ACCESSOIRES

EFMX-4M: mating plug Jaeger 530-801-006 with clamp 530-841-006 standard and Z04 option for ranges 20kN to 100kN
EFMX-4H: mating plug Jaeger 530-804-006 with clamp 530-844-006 for Z35 or Z36 option & ranges 20kN to 100kN
EFMX-7M: mating plug Jaeger 530-272-006 with clamp 530-371-006 standard and Z04 option for ranges 200kN to 5MN
EFMX-7H: mating plug Jaeger 530-604-006 with clamp 530-693-006 for Z35 or Z36 option & ranges 200kN to 5MN

RECOMMENDED ACCESSORIES

OPTGA001xxx: Load Button



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