

# Electromagnetic shaker system

## F3/Z602WA

### SPECIFICATIONS

Usable frequency range	25 - 10,000 Hz
Blocked force output <sup>1</sup>	see graph on page 2
Maximum continuous current	0.75 amp rms
Nominal electrical impedance	16 Ω
DC electrical resistance	6 Ω
Resonant frequency, blocked	<50 Hz
Connector <sup>2</sup>	BNC
Cable for use with WST7B <sup>3</sup> amplifier	R1-8B-8B-J93-10-P1
<b>Accelerometer nominal values</b>	
Voltage sensitivity	100 mV/g
Frequency response:	
±0.5 dB	20 - 6,000 Hz
±1.0 dB	15 - 10,000 Hz
±3.0 dB	10 - 20,000 Hz
Power requirements: voltage source	18 - 30 VDC
current regulating diode	2 - 10 mA
Bias output voltage, nominal	8 VDC
Output impedance	<100 Ω
Electrical noise, equiv. g:	
Spectral	
10 Hz	15 µg/√Hz
100 Hz	5 µg/√Hz
1,000 Hz	1 µg/√Hz
Connector <sup>2</sup>	BNC
Output cable	R1-2-J93-10-L1
<b>Force gage nominal values</b>	
Voltage sensitivity	100 mV/lb (22.5 mV/N)
Power requirements: voltage source	18 - 30 VDC
current regulating diode	2 - 10 mA
Bias output voltage, nominal	12 VDC
Output impedance	<100 Ω
Electrical noise, equiv. lb:	
Spectral	
10 Hz	5 µlb/√Hz (22 µN/√Hz)
100 Hz	2 µlb/√Hz (9 µN/√Hz)
1,000 Hz	1 µlb/√Hz (4 µN/√Hz)
Connector <sup>2</sup>	BNC
Output cable	R1-2-J93-10-L2
Mass below force gage (including stud)	20 grams (0.044 lb)
Effective stiffness	6 x 10 <sup>6</sup> lb/in (1 x 10 <sup>9</sup> N/m)
Diameter of mounting surface	0.55 in. (1.4 cm)
Mounting stud, stainless steel	10-32
Recommended screw down torque	20 in-lb (2 Nm)
Temperature range	0° to +80°C
Base material	anodized aluminum
<b>Weight:</b>	
Parts rigidly attached to structure	0.30 lb (0.14 kg)
Suspended weight	0.53 lb (0.24 kg)
Total weight	0.83 lb (0.38 kg)



### Key features

- Permanent magnet shaker
- Reaction-type shaker generates very large dynamic forces for research and testing
- Impedance head design allows measurements to be taken on lightweight structures
- Designed for operation over a wide range of audio frequencies
- Manufactured in ISO 9001 facility

See reverse for dimensions, graphs and system diagram.

**Notes:** <sup>1</sup> Blocked force output refers to the force output against a mass of infinite mechanical impedance.

<sup>2</sup> Refers to connector at shaker end of cable.

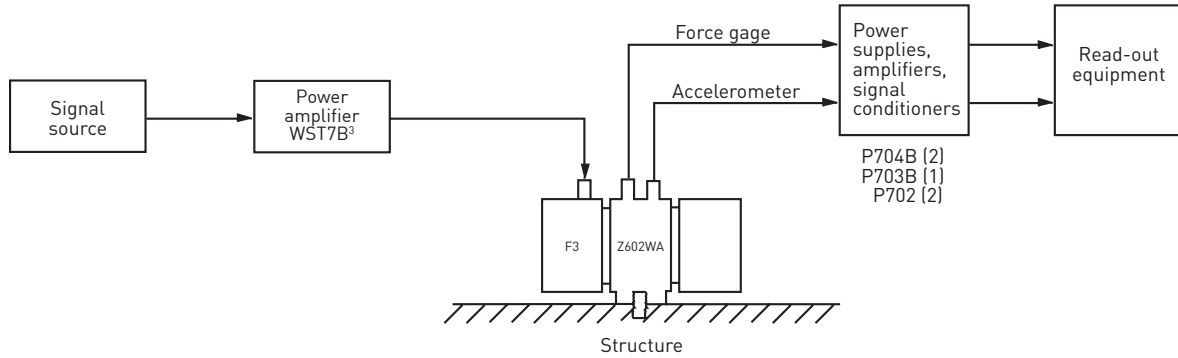
**Accessories supplied:** All input and output cables; mounting stud; spanner wrench; calibration data

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

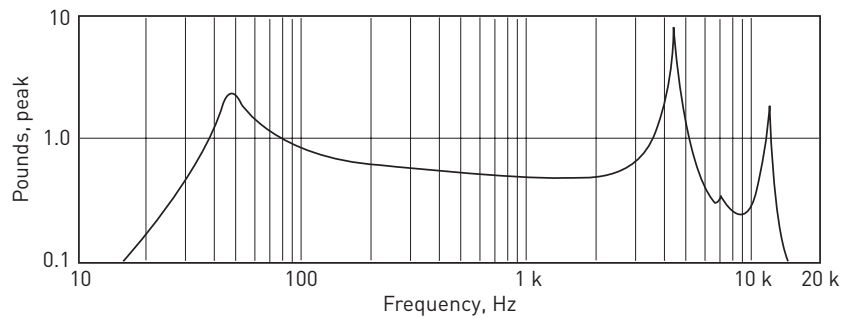
# Electromagnetic shaker system

## F3/Z602WA

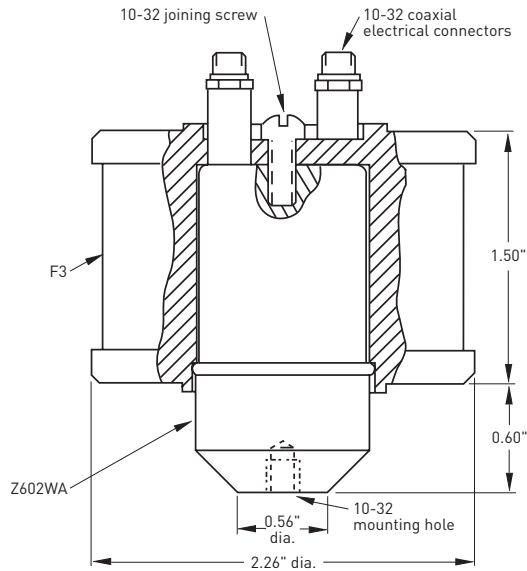
### Recommended system diagram



Typical blocked force output  
[F3 shaker powered by WST7B<sup>3</sup>]



### Dimensions



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.