

Non-G-Resistant Data Acquisition System for Crash Test

DIS-7200 Series



Main Common Specifications

■ Operating Environment	
Operating Temperature	0 to 50°C
Operating Humidity	20 to 80% (Non-condensing)
Storage Temperature	-10 to 60°C
Storage Humidity	10 to 90% (Non condensing)
■ Interfaces	
Conforming to 10BASE-T/100BASE-TX	
■ AD Converters	
16 bits	
■ Trigger	
Mode	Ring buffer mode, Recorder mode
Type	Switch Trigger, Cascade Trigger, Software Trigger, Analog Trigger
*Trigger synchronization of multiple models is available.	
■ Power Supply	
15 to 28 VDC (Typical 24 VDC)	

Other Main Specifications of DIS-7200AS2

■ Digital Input	Total 32 (16 x 2), no-voltage contact
■ Sampling Frequencies	100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k Hz
■ Data Recording	Approx. 80 minutes (At 100k Hz)
■ Trigger Distribution Output	
Channels	4
■ Check Function	Memory, battery, trigger
■ Buzzers	Built-in alarm buzzer
■ Appearance	
Dimensions	45 W x 100 H x 210 D mm (Excluding protrusions)
Weight	Approx. 1.0 kg

Other Main Specifications of DIS-708AS1/716AS1/724AS1

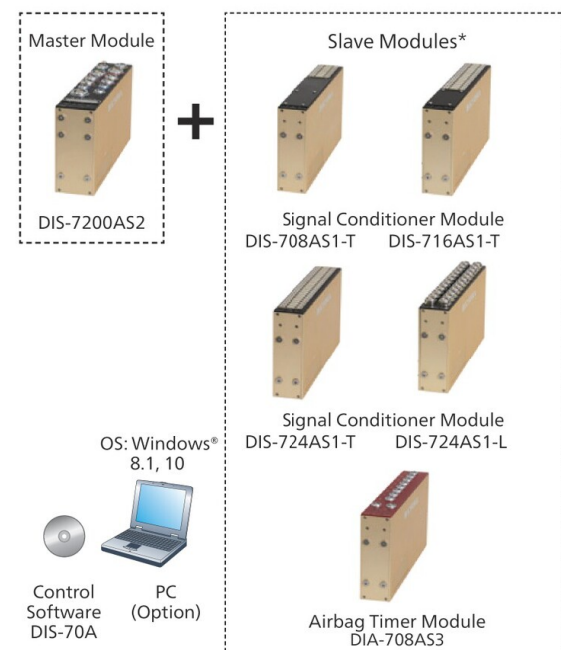
■ Analog Input	
Measuring Targets	Strain, voltage
Channels	DIS-708AS1-T: 8 DIS-716AS1-T: 16 DIS-724AS1-T/L: 24
* Round connector model is 24 channel only	
Connectors	DIS-708AS1-T, DIS-716AS1-T, DIS-724AS1-T 3RT01-RW7F(TAJIMI made) DIS-724AS1-L: ECG.1B.307(LEMO made)
Input Voltage	Within ±20 V
Gain	x0.1 to 0.9, x1 to 5000
Gain Accuracy	Within ±0.2%FS
Nonlinearity	Within ±0.1%FS
Bridge Excitation	10, 5, and 2 VDC Each channel ON/OFF is switchable.
Applicable Bridge Resistance	120 to 5k Ω (Half bridge system, full bridge system)
■ Low-pass Filter	
5th order Butterworth	
Cutoff Frequencies	50, 100, 200, 400, 1k, 2k, 4k, 10k, 20k Hz
Amplitude Ratio	Within -3 ± 1 dB
Attenuation	Within (-30±3) dB/oct.
■ Sampling Frequencies	100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k Hz
■ Data Recording	Approx. 80 minutes (At 100k Hz)
■ Check Functions	
Memory, battery, trigger, input terminal resistance, open circuit, bridge excitation, sensor, gain	
■ TEDS Functions	
Compatible with IEEE1451.4	
■ Appearance	
Dimensions	35 W x 100 H x 210 D mm (Excluding protrusions)
Weight	DIS-708AS1-T: Approx. 0.8 kg DIS-716AS1-T: Approx. 0.9 kg DIS-724AS1-T/L: Approx. 1.0 kg

Records data for component tests, dummy certification, etc.

- Compact & lightweight
- Modularization structure enables to optimize your system. (From 1 to multi-channel measurements.)
- Outputs ignition current based on the pre-set delay time. (DIA-708AS3)
- Synchronous measuring channels up to 1056 (Up to 999 channels when using DIS-70A)

Same performance as DIS-7000 Series.
For component tests, dummy qualification tests, airbag ignition tests, and for measuring barrier load cells etc.

■ System content



*Up to 15 slave modules are connectable per single master module.

*You cannot connect the DIS-7000 Series modules.

Strength and Stability

Controllability Evaluation

Component

Engine and Powertrain

Crash Safety

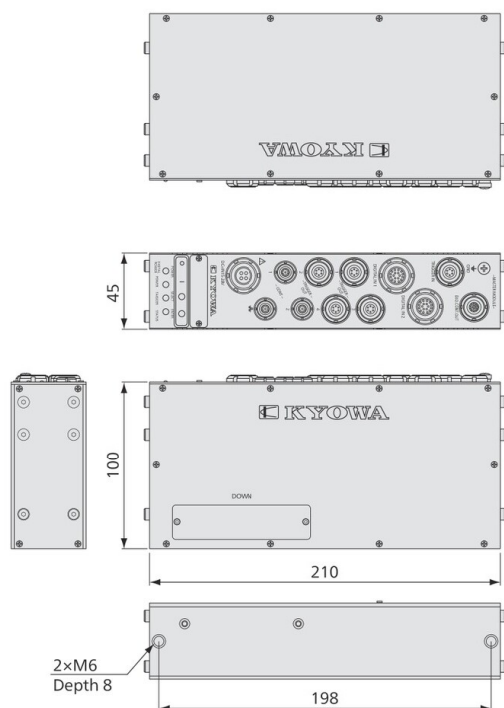
Other Main Specifications of DIA-708AS3

■ Ignition Current	
Channels	8
Connectors	DIA-708AS3: ECP.05.302 (LEMO made)
	Plug: FFA.05.302 (LEMO made)
Output Current	Setting range: 0.5 to 3.0 A and OFF
	Accuracy: Within ± 0.05 A
Maximum Output Voltage	Approx. 18 V
Load Resistance	1 to 9 Ω
	(Including cable resistance value to the inflator)
Output Time	Setting range: 0.2 to 5 ms
	Accuracy: Within 0.1ms
Delay Time	Setting range: 0.1 to 9999 ms
■ Recording Current Waveform	
Measuring Accuracy	Within $\pm 3\%$ FS (FS=5.0 A)
■ Sampling Frequencies	10k, 20k, 50k, 100k Hz
■ Data Recording	Approx. 40 minutes (At 100k Hz)
■ Check Functions	Memory, battery, trigger, current output

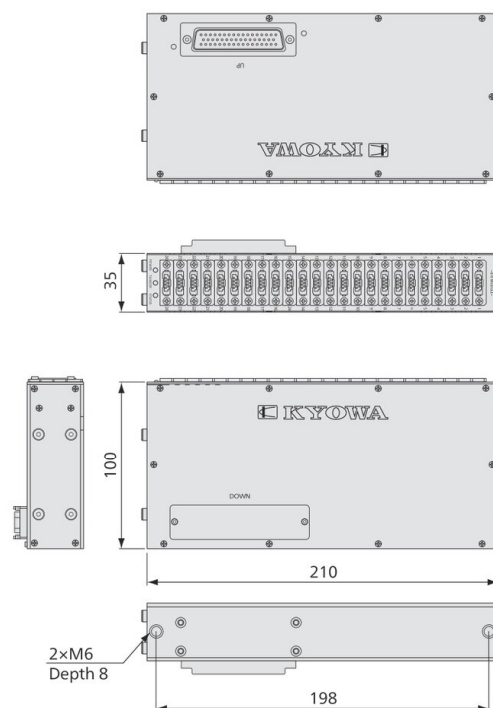
■ Safety Functions	
Load Resistance Measurement	Apply weak current to the inflator and measure the resistance.
SAFETY Function	In a state with the SAFETY plug inserted to the SAFETY connector, no trigger signal can be input. In addition, the current output terminals are shorted in the DIA-708AS3 so as not to flow the accidental current to the inflator.
■ Appearance	
Dimensions	35 W × 100 H × 210 D mm (Excluding protrusions)
Weight	Approx. 0.9 kg

■ Dimensions

Master Module
DIS-7200AS2



Slave Module
DIS-724AS1-T



*The DIS-708AS1-T, DIS-716AS1-T, DIS-724AS1-L, and DIA-708AS3 are the same in size, but difference in input connectors.

Strength and Stability

Controllability Evaluation

Component

Engine and Powertrain

Crash Safety