

Stationary KiDAU Advanced

Type K3880AS

Stationary system

The Stationary KiDAU Advanced Type K3880AS is an expansion module designed for the Stationary System Base Unit Type K3800AS. It is characterized by the following technical features:

- 8 analog channels
- Constant voltage excitation
- Constant current excitation
- Direct recording in flash memory
- Compatible to CrashDesigner
- SAE J211 and ISO 6487 conform

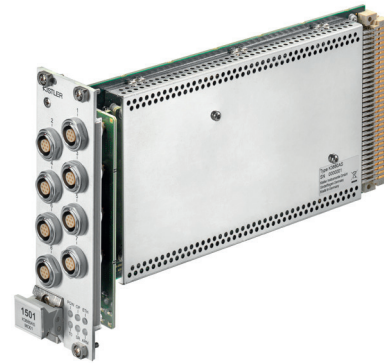
Description

The Stationary KiDAU Advanced has 8 analog inputs. The application of different connectors as well as pin assignments for the 8 analog inputs will be mapped by means of different SD-panels.

Each analog channel comprises a programmable input amplifier, bridge excitation circuit, low pass filter and a 16 Bit A/D converter. The amplifier precision is better than 0.1 % and the input impedance above 10 MΩ. The gain values can be programmed from 0.5 ... 10 000. An internal reference voltage is used for precise control of the amplifier setting, which is achieved via software.

The bridge excitation voltage is programmable separately for each channel. Bridge completion for half bridges can be switched internally. All current sensors may be supplied, a short circuit limitation is provided. In contrast to former designs, the input low-pass filter is designed only as an adaptive antialiasing filter. All necessary filtering according to SAE filter classes has to be done in the evaluation and analysis software or the CrashDesigner.

Each channel of the Stationary KiDAU Advanced has its own A/D converter with a 16 Bit resolution. All channels are sampled simultaneously, ensuring that no time lack occurs between different channels. The maximum sampling rate is 100 kHz. Each channel has a dedicated D/A converter of its own for compensation of the offset voltage. All adjustments are implemented by software, automatically or by command.



Technical data

Power consumption, max	W	15
Weight	kg	0.4
Input voltage, relating to -EXC	V	-5 ... 18
Programmable gain		0.5 ... 10 000
Bridge excitation, regulated on each channel	V	0 ... 18
Constant current excitation	mA	1 ... 20
Programmable bridge completion		yes
Maximum rated output	mA	60
Filter		adaptive, anti-aliasing
Resolution	Bits	16
Sampling rate, max.	kHz	100
Programmable offset compensation		yes
Signal bandwidth, max.	kHz	40
Sense lines available on socket		yes
Shunt check		2 quadrant, internal resistor
Recommended external shunt resistance	kΩ	>9.5
Sensor ID verification		Dallas
Memory type		non-volatile flash
Recording time		
8 ch @ 20 kHz	s	1 800
8 ch @ 100 kHz	s	359
Trigger		double trigger, 1 x level trigger, SW start stop
Communication		100BaseTX Ethernet

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Application

The Stationary KiDAU Advanced Type K3880AS represents the stationary counterpart of the KiDAU Advanced OnBoard Adapter Type K3880C and is designed for usage under non-crash conditions. Possible applications include – but are not limited to – test dummy preparations or component tests.

The Stationary KiDAU Advanced can store data for a 359 s cycle at a sampling rate of 100 kHz which allows the user to start recording data before the test is actually started. This ensures that the measuring system works correctly and prevents data loss. The trigger point is registered and recorded as in previous systems. Once a valid trigger point is stored in the Stationary KiDAU Advanced data memory, the user can only select the actual measured data for transfer to a PC, and it is no longer necessary to read out the complete system memory. The Stationary KiDAU Advanced is designed with a trigger input and output for synchronization with other units. The first analog channel or a remote StartOfRecord software trigger can be selected for triggering.

The trigger threshold and trigger criterion can be freely selected for the first analog channel. An uninterrupted power supply is not needed to retain the data because flash-EEPROMs are used for the memory. The data remains available for many years!

Ordering key

Type K3880AS

SD panel

MD01	M1
MD02	M2
MD03	M3
MD04	M4
MD05	M5
MD06	M6
MD07	M7
MD08	M8
MD09	M9
MTE1	T0
MTE2	T1
MTE4	T4
MTE5	T5
MTE6	T6
F 01	T8
F 02	T9
MU	A2
MF	A3
Tajimi 3RT01	SC
Amphenol/Souriau PT02	S3