

Stationary System

Type K3800AS

Base Unit

The Stationary System Base Unit Type K3800AS is a 19" rack carrier system for Kistler's new line of high performance measurement systems comprising stationary variants of the Automotive and Test - Vehicle Safety OnBoard data acquisition devices.

The features of the Stationary System Base Unit can be summarized to:

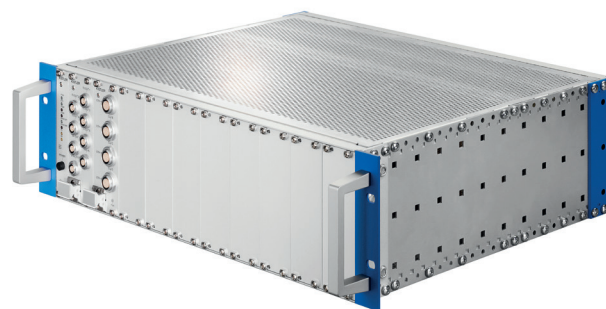
- Up to 8 expansion modules
- 4 x CL2 interfaces supplying up to 240 W @ 48 VDC
- 5 x T0 Output Closer Contact
- 1 x SR Output Closer Contact
- 1 x Sync Output RS485
- 1 x T0 Tape Switch Input
- 1 x SR Tape Switch Input
- 12 V Auxiliary Voltage for light barriers
- Interface to external StarPoint Type K3981B
- 100Mbit Ethernet Interface

Description

The Base Unit with its associated data acquisition expansion modules is designed to provide the same excellent performance and high reliability of the OnBoard devices but for stationary laboratory applications. Possible applications include – but are not limited to – dummy preparation/calibration and component tests.

Application

The Stationary System Base Unit supports up to a maximum of 8 user configurable expansion modules. By default every Base Unit provides all necessary hardware to operate all available expansion modules. In addition to that, the Base Unit provides interfaces to external crash-test infrastructure. Furthermore, existing OnBoard devices can be directly connected to (and powered by) the Base Unit via 4 CL2 Interfaces. The communication and distribution of trigger signals between all connected devices is handled by the System Base Unit.



Technical data

Input power

AC Input voltage range	VAC	100 ... 240
AC Input frequency	Hz	50/60
Inrush current	A	30
Nominal input current		
@100 VAC	A	10
@230 VAC	A	4.4
Power consumption, max.	W	700
Leakage Current (230 V 60 Hz)	mA	<3.5

Degree of protection

EN60529		IP20
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Environmental conditions

Altitude	m	≤2 000
Temperature range storage	°C	-20 ... 65
Temperature range operation	°C	0 ... 40
Humidity range storage	%RH	10 ... 85
(non condensing)		
Humidity range operation	%RH	30 ... 85
(non condensing)		

Size & Weight

Weight	kg	9 ... 11
Dimensions, LxWxH	cm	44.3x48.3x13.3
(19", height: 3 units)		

Trigger input

Idle voltage SR	VDC	9.5 ... 10.5
Idle voltage T0	VDC	9.5 ... 10.5
Short circuit current SR	mA	20
Short circuit current T0	mA	20
Threshold voltage, trigger	VDC	<1.2
Threshold voltage, no trigger	VDC	>3.5

Technical data (continued)**Trigger output**

Max differential input voltage (TVS diode prot.)	V	36
Max input voltage against chassis (per pin)	V	±36
Max recommended clamp current (@ 40°C ambient)	mA	500
Overcurrent protection (polyfuse) (@ 20°C ambient)	mA	2 200
Max resistance closed	Ω	2

12 V Auxiliary supply

Auxiliary supply voltage	V	10 ... 13
Auxiliary supply current, max.	mA	500
Overcurrent protection (polyfuse) (@ 20°C ambient)	mA	2 200

Sync output (RS-485 level, 5 V differential)

Max. recommended drive current	mA	25
Sync frequency	Hz	1 000
Time base accuracy	ppm	<10

Trigger delays

TRIG IN SR to SR OUT	μs	150 ±10
TRIG IN T0 to T0 OUT	μs	150 ±10
TRIG IN SR to CL2 A/B/C/D SR	μs	150 ±10
TRIG IN T0 to CL2 A/B/C/D T0	μs	150 ±10
CL2 A/B/C/D T0 to T0 OUT	μs	2.0 ±1.3
CL2 A/B/C/D SR to SR OUT	μs	2.0 ±1.3

Available expansion modules

Data acquisition module 8ch analog	Type K3880AS
Data acquisition module 16ch digital	Type K3840AS

Ordering key

- Stationary System Base Unit Type K3800AS