

DAS5 - Replaced by Digitek Shark



Data Logger

DAS5 is a stand-alone data logger with a removable memory card and internal backup memory. It is derived from the TS10 data logging card of the Marelli Step10 system and combines a large quantity of non-volatile memory with a high data throughput to match the logging requirements of a professional motorsport electronic engine/vehicle control system. The principal communications links for data logging on the car are CAN and ARCNet buses while the connection for programming and downloading from/to a PC network is via 100baseT Ethernet using TCP/IP.

Connection to the unit is via two MIL-spec circular connectors, one of which is dedicated to analogue inputs.

DAS5 supports Compact Flash memory cards. The slot is PC Card format for ease of handling, consequently the Compact Flash card requires a PC Card type II adapter for insertion into the data logger.



Technical data

Logging

Internal flash disk 128, 256 Mbyte
Removable memory Compact flash
..... (do not include)
slot PCMCIA PC Card Type II
Internal RT clock 1

Analogue Inputs

Single ended inputs* (10 bit resolution) 16
input voltage range 0 to 5 V
anti-aliasing filter 500 Hz

**Up to 8 inputs can be configured for PT1000,
for other sensors please contact factory*

Digital I/O

Input capture 4
threshold 3.3 V
max. frequency 5 kHz
resolution 2 μ s/bit
pull-up to 5 V 2.2 k Ω
On/Off inputs 3
(Code load, Manual lap trigger, Marker)
range 0 to 5 V
Manchester encoded beacon input 1
range 0 to 5 V
Outputs (for indicator LEDs) 2
(OUT2= Ethernet link, OUT3= eject ready)
type open collector
max. current 50 mA

Communications

CAN lines* 3
speed 1 Mbit/s
terminations pinout selectable
identifiers standard 11 bit
applications data acquisition
..... dashboard comm.s
ARCNet* 2
Ethernet 1
physical 100BaseT
protocol TCP/IP
applications download
..... logger setup
RS 232 1
applications code load
..... real time telemetry

**Firmware programmable terminations*

Mechanical/Electrical characteristics

Power supply 8 to 18 V
protection load dump
..... polarity inversion
..... short circuit to Vbatt & GND
Protection on Inputs/Outputs
..... over voltage \pm 50 V; 1 ms
..... short circuit to GND, Vbatt
Ambient operating temperature -10 to 55 $^{\circ}$ C
Vibration tested at 10 g
..... 1500 Hz
Protection class IP 54
Connectors
analogue inputs SJT00RT-12-35PN
main SJT00RT-14-35PN
Dimensions approx.
without connectors 106 x 130.5 x 37.5 mm
Weight approx. (without card) 540 g

Ordering Information

Label	Description	Order code
Das5_128/A	Data Logger 128 Mbyte internal + flash card slot	083816126200

For further details please contact

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Specification subject to change without notice.

Characteristics

- 128 or 256 Mbyte internal memory
- Compact Flash removable memory (do not include)
- Sampling rates up to 1000 Hz
- Up to 1024 logged channels
- Up to 64 Kbyte/s logging rate
- 16 analogue inputs
(8 with HW configurable gain & pull-ups)
- 4 wheel speed inputs
- 3 CAN lines
- 2 ARCNet lines
- Event-triggered logging
- High speed download via standard 100BaseT Ethernet card (not supplied)
- Requires WINTAX2 PRO analysis software (compatible Win95/98/NT/2K/XP)
- Requires SYNAPSE logging setup tool

Connector Pin Out

DAS5 pin-out: SJT00RT-14-35PN					
Pin	Name	Descr.	Pin	Name	Descr.
1	VBATT	power supply	13	IC3	input capture #3
2	GND_Power	GND power supply	14	IC4	input capture #4
3	KEY	connect to VBATT to enable logging	15	GND_IC	input capture GND
4	VBATT_OUT	Vbatt output ¹	16	OUT1	digital output #1
5	CODELOAD	ground before power ON for code load	17	LINK_ETH	ON-OFF output #2 Eth link status
6	I-R BEACON	ON-OFF input #1 lap marker (ON-OFF)	18	EJECT_RDY	ON-OFF output #3 flash card status
7	MARKER	ON-OFF input #2 ref. marker (ON-OFF)	19	CAN1P	CAN1 high
8	EJECT	ON-OFF input #3 ground before eject	20	CAN1N	CAN1 low
9	RADIO BEACON	coded radio lap beacon	21	CAN2P ²	CAN2 high
10	GND_DIG	digital GND	22	CAN2N	CAN2 low
11	IC1	input capture #1	23	CAN3P	CAN3 high
12	IC2	input capture #2	24	CAN3N	CAN3 low
			25	GND_CAN	GND CAN 1,2,3
			26	ARC1_A	ARCNet 1 A
			27	ARC1_B	ARCNet 1 A
			28	ARC2_A	ARCNet 2 A
			29	ARC2_B	ARCNet 2 A
			30	RS232_TX	Serial port (not used)
			31	RS232_RX	Serial port (not used)
			32	GND232	Serial port (not used)
			33	ETH_TX_P	Tx Ethernet positive
			34	ETH_TX_N	Tx Ethernet negative
			35	ETH_RX_P	Rx Ethernet positive
			36	ETH_RX_N	Rx Ethernet negative
			37	n.c.	

DAS5 analogue pin-out: SJT00RT-12-35PN								
Pin	Name	Descr.	Pin	Name	Descr.	Pin	Name	Descr.
1	AIN1	analogue input #1	8	AIN8	analogue input #8	15	AIN15	analogue input #15
2	AIN2	analogue input #2	9	AIN9	analogue input #9	16	AIN16	analogue input #16
3	AIN3	analogue input #3	10	AIN10	analogue input #10	17	VREF	5 V max 50 mA
4	AIN4	analogue input #4	11	AIN11	analogue input #11	18	VREF	5 V max 50 mA
5	AIN5	analogue input #5	12	AIN12	analogue input #12	19	VREF	5 V max 50 mA
6	AIN6	analogue input #6	13	AIN13	analogue input #13	20	AGND	analogue GND
7	AIN7	analogue input #7	14	AIN14	analogue input #14	21	AGND	analogue GND
						22	AGND	analogue GND

¹ max 500 mA

² Used for code load