

## 12-CYLINDER IGNITION DRIVER

ID12.2



## Description

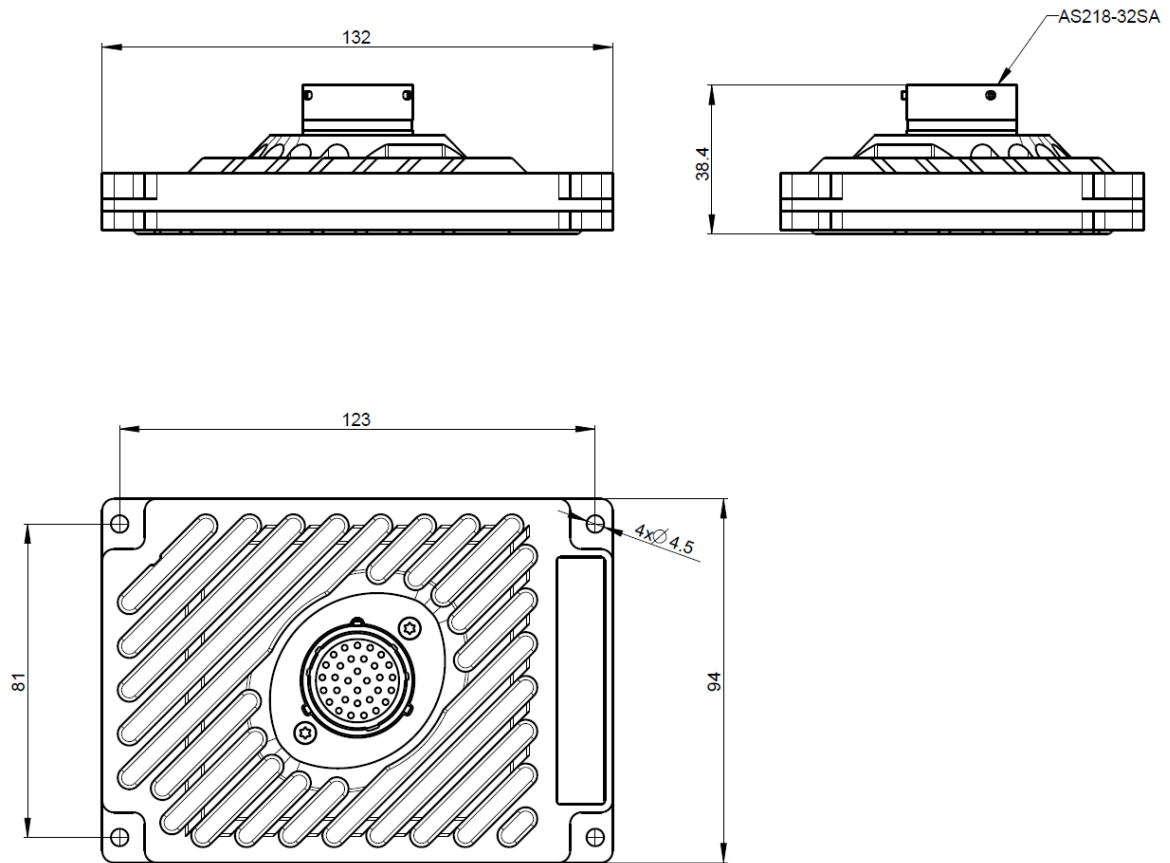
IO	
Driver type	SCIS IGBT
TTL Inputs	x12 (logic level $R_{max} = 30k\Omega$ )
Ignition Outputs	x12 (LOW SIDE)
Internal Temperature	x1 NTC
Electrical	
Operating Voltage Range	6V to 30V
Fly-back Voltage Protection	450 V
Maximum Charging Current	40A (7.5A continuous)
Maximum Self Clamp Energy	400mJ
TTL Input Voltage Range	$\pm 10$ V
TTL Input Threshold Voltage	2.5 V
Typical Switching Delay	3 $\mu$ s
Mechanical	
Operating Temperature	-25°C to +85°C
Maximum Dimensions	132 x 94 x 39 mm
Case material	Aluminium
Weight	~290 g
Connection	
Connector	DEUTSCH AS218-32SA
Mating connector	DEUTSCH AS618-32PA

## Internal Temperature Sensor calibration

Temp [°C]	-20	-10	0	10	20	25	30	35	40	50
$V_{3k\Omega\_pull-up}$ [V] <sup>(1)</sup>	4.811	4.697	4.532	4.306	4.015	3.846	3.663	3.468	3.264	2.841
R [ $\Omega$ ]	76540	46500	29050	18620	12230	10000	8219	6792	5641	3949
Temp [°C]	60	70	80	90	100	110	120	130	140	150
$V_{3k\Omega\_pull-up}$ [V] <sup>(1)</sup>	2.421	2.026	1.672	1.366	1.110	0.901	0.731	0.595	0.486	0.399
R [ $\Omega$ ]	2816	2043	1507	1128	856.5	659.2	513.7	405	322.9	260

<sup>(1)</sup>  $V_{ref} = 5V$

Drawing



Pinout

Connection			
Connector		DEUTSCH AS218-32SA	
Mating connector		DEUTSCH AS618-32PA	
Pin	Signal	Pin	Signal
A	Ignition Coil #10 NEG	T	Ignition Coil #6 NEG
B	Ignition Coil #12 NEG	U	TTL Input #12
C	Ignition Coil #3 NEG	V	TEMP SIG
D	Ignition Coil #1 NEG	W	TEMP GND
E	Ignition Coil #7 NEG	X	TTL Input #1
F	Battery GND	Y	TTL Input #5
G	Battery GND	Z	TTL Input #9
H	Ignition Coil #5 NEG	a	TTL Input #4
J	Ignition Coil #9 NEG	b	TTL Input #2
K	Ignition Coil #11 NEG	c	TTL Input #8
L	Ignition Coil #4 NEG	d	Battery GND
M	Ignition Coil #2 NEG	e	TTL Input #10
N	Ignition Coil #8 NEG	f	TTL Input #3
P	Battery GND	g	TTL Input #7
R	Battery GND	h	TTL Input #11
S	Battery GND	i	TTL Input #6