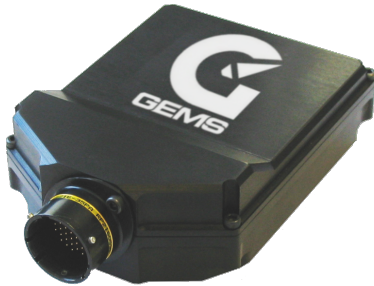


## TC82



### Description

The TC82 is a powerful gear shift control system capable of running as a complete stand alone controller or interfacing to a wide range of engine control systems to provide fast safe and reliable gear shift.

It features fully configurable inputs and outputs as well as a simple to set up CAN interface, position feedback shift control with configurable torque reduction and throttle blip interface, 8MB of data logging which can be configured to only log gear shift so high speed logging can be enabled with maximum usage of the logging memory.

### Specifications

Parameter	Value
Operating Voltage	7 -18 volts
Current Consumption	Drives off < 100 ma
Analogue Inputs	8 0-5 volt analogue inputs with user selectable pull ups 2 0-5 volt differential analogue inputs 4 0-5 volt analogue inputs
Speed Inputs	6 x User configurable speed inputs
Driver Outputs	8 x 5 Amp PWM/peak and hold drives
DAC outputs	2 0-5 volt Analogue outputs
Internal Sensors	Battery voltage Internal Temperature
Logging Memory	8Mb
Logging Speed	Configurable up to 1KHz
Communications	1 x CAN 1 x RS232 serial 1 x USB
Casing	Anodised Aluminium
Dimensions	110x90x40 mm
Weight	310grams

## Connector Details

ID	Connector	Mating Connector
1	AS216-35PA	AS616-35SA

## Pin Out

Pin	Function	Normally Used for	NotesFunction
1	Power 0v	Main Power	
2	PWM 5	Cut Signal	Simple on/off cut signal
3	PWM 6	Down Shift Valve	
4	PWM 7		
5	Speed 4	RR Wheel speed	For Traction control
6	Power 0v	Main Power	
7			Do not Connect
8	Power 12v +	Main Power	
9	USB DM	USB	USB white
10	PWM 1		
11			Do not Connect
12	Power 0v	Main Power	
13	Speed 3	LR Wheel speed	For Traction control
14	Power 12v +	Main Power	
15	USB DP	USB	USB green
16	PWM 8		
17	Speed 5	LF Wheel speed	For Traction Control
18	Analogue OP 2		0-5 v Analogue output
19	Power 0v	CAN Screen	
20	Analogue 1	Clutch position Input	
21	Analogue 3	Up Switch	
22	USB power	USB	USB red
23	USB 0v	USB	USB black
24	RS232 0v	RS232 Coms	
25	Speed 1	Tacho input signal	
26	Analogue op 1	Alternative cut signal	For systems that use Analogue inputs to the EMS for Cut and Blip demand
27	Analogue 4	Pneumatic system temp	
28	Analogue 14	Traction control pot	
29	Analogue 5	Down switch	
30	Analogue 6	Up shift pressure	
31	Speed 6		
32	Speed 1 0v	Tacho Signal 0v	
33	Analogue 8	Detent/Neutral Switch	
34	Analogue 13		
35	RS232 Rx	RS232 Coms	
36	CAN 1 Hi	CAN	
37	Analogue 9 +	Throttle position signal	
38	Analogue 9-	Throttle position 0v	
39	Analogue 16		
40	PWM 2	Throttle Blip Valve	
41	Analogue 15		
42			Do not connect
43	RS232 Tx	RS232 Coms	
44	CAN1 Lo	CAN	
45	Analogue 10+	Gear Position signal	

46	Analogue 10-	Gear Position 0v	
47	Speed 2	RF Wheel speed	Traction Control
48	PWM 3	Pump relay drive	
49	10v Sensor supply		
50	5v Sensor supply		
51	Analogue 7	System pressure	
52	Analogue 2	Down Shift pressure	
53	PWM 4	Up shift valve	
54	Dig 0v		For speed signals
55	Analogue 0v		For Analogue inputs