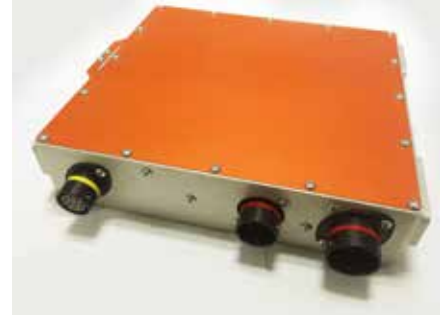


## Electric Gearshift System (EGS)



The Zytec EGS (Electrical Gearshift System) holds a unique place as the only high-level advanced gearshift system which is purely electro-mechanical. The system has been specifically developed to avoid the installation complexity, maintenance requirements, and weight associated with pneumatics or hydraulics, whilst delivering equivalent shift energies and ultra-rapid shift speeds. The latest version includes additional functionality in order to meet the latest HV components safety guidelines and offer users more flexible options within the control software architecture. Offered with the option of bespoke gearshift paddles, Zytec offer the complete and ultimate gearshift solution.

### SPECIFICATION

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EGS, comprising:  
 Gearshift Control Unit  
 Double-acting Gearshift Actuator  
 Steering Wheel Paddles (optional)  
 Dimensions: GCU: 185 x 212 x 44 mm  
 (excl connectors)  
 SA: 67 dia x 94 mm (excl actuating rod)  
 Mass: 2.0 + 1.2 kg (without harness)  
 Peak Actuating Force: 1000N  
 Peak actuating stroke:  $\pm 11.5$ mm  
 Operating Voltage: 12 V  
 Individual Shift time: 25ms  
 Bulk shift time: 5 in < 1s  
 Cooling: None required  
 Control: CAN  
 Environmental Sealing: GCU - Cabin

### APPLICABLE SERIES

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Single seaters  
 Endurance cars  
 GT3/SuperGT  
 Time attack cars

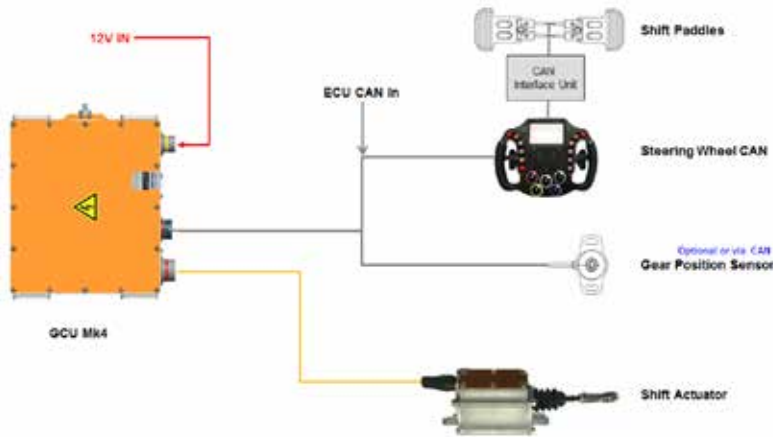
### EGS SYSTEM ARCHITECTURE

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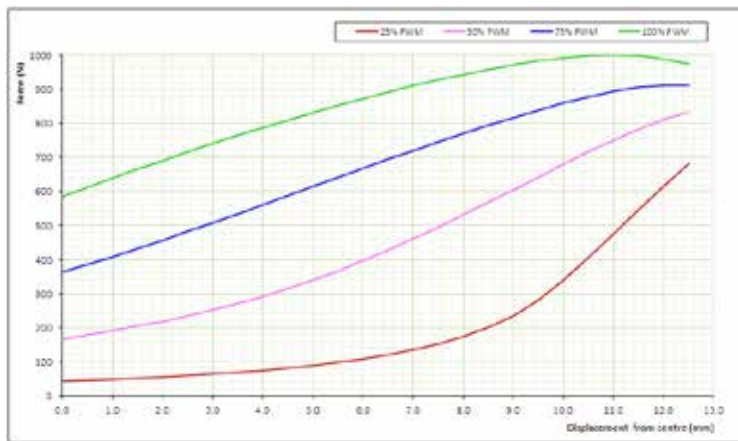
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# Electric Gearshift System (EGS)

## EGS SYSTEM ARCHITECTURE



## EGS ACTUATOR FORCE DISPLACEMENT



## CONNECTOR INFORMATION

Power Connector: AS6 16-08SN

Pin	Signal
A	+12V Supply (Master switch)
B	+12V Supply (Master switch)
C	Ground
D	Ground
E	Clutch Actuator +
F	Clutch Actuator -

Signal Connector: AS6 14-35SN

Pin	Signal
1	Diagnostic CAN Low
2	Vehicle CAN High
3	Vehicle CAN Low
4	Logging CAN High
5	Logging CAN Low
6	GCU HV Enable
7	GCU Enable
8	Spare Signal / Screen Ground
9	HW Shift Control Dig in 1
10	HW Shift Control Dig in 2
11	Spare Sensor Supply
12	Clutch Position Sensor Signal A
13	Clutch Position Sensor Supply
14	Clutch Pressure Sensor Supply
15	Gear Position Sensor Supply
16	ECS CAN High
17	ECS CAN Low
18	Diagnostic CAN High
19	Vehicle CAN Screen
20	Logging CAN Screen
21	Spare Signal / Screen Ground
22	Spare Signal / Screen Ground
23	Spare Ground
24	HW Shift Control Dig in 3
25	HW Shift Control Dig in 4
26	Clutch Position Sensor Signal B
27	Clutch Pressure Sensor Signal
28	Gear Position Sensor Signal A
29	ECS CAN Screen
30	Diagnostic CAN Screen
31	Spare Analogue Input 2
32	Spare Analogue Input 3
33	Clutch Position Sensor Ground
34	Clutch Pressure Sensor Ground
35	Gear Position Sensor Signal B
36	Spare Analogue Input 1
37	Gear Position Sensor Ground