

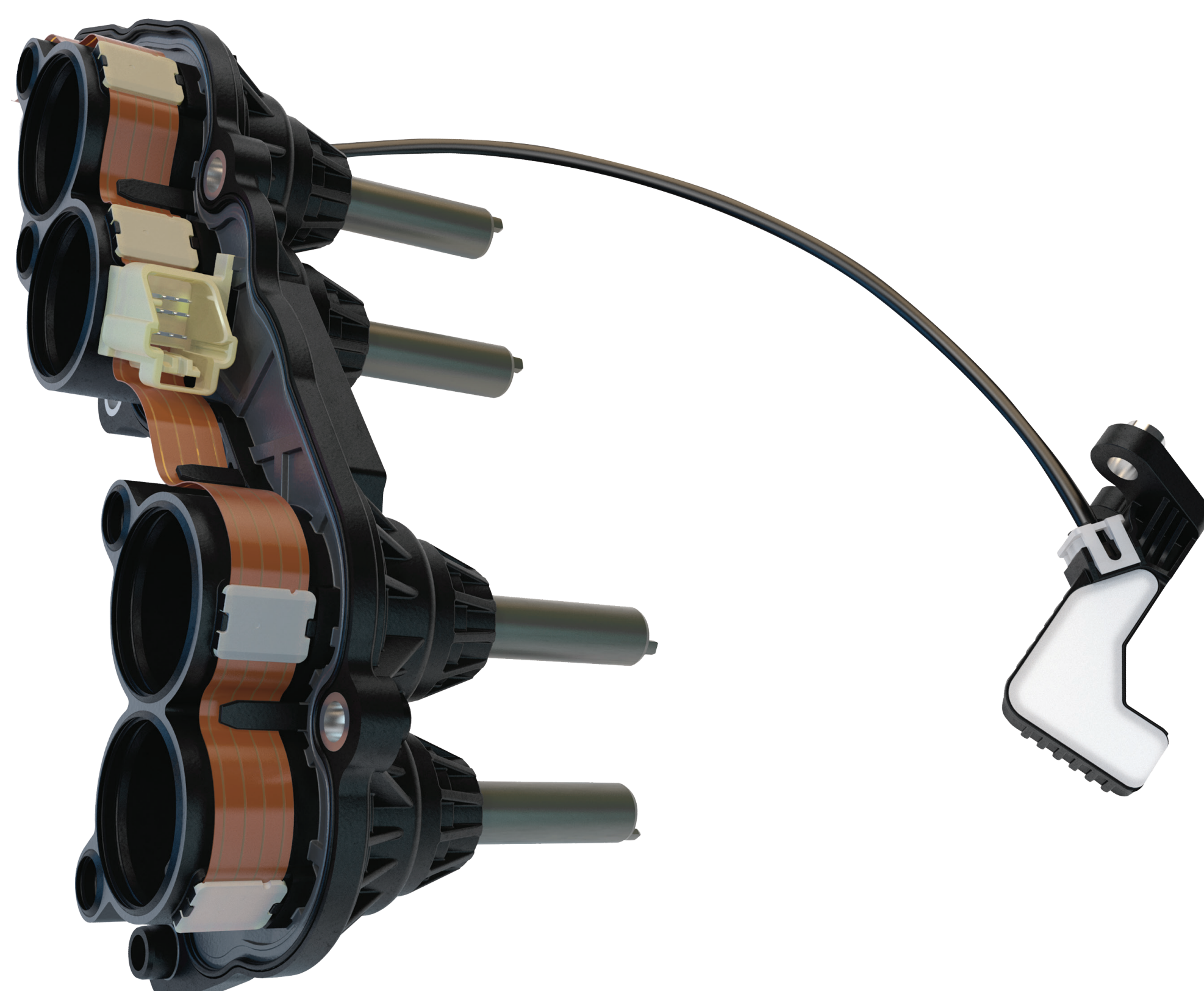


FTE automotive USA, Inc

Hydraulic Gear Shift Actuator Module (GSAM) for DCT's and AMT's

The Gear Shift Actuator Module (GSAM) has been specifically designed for double clutch transmissions (DCT). It can as well be utilized in automated manual transmissions (AMT). It shifts between gears by converting hydraulic pressure into mechanical stroke. Composed of mainly high tech plastic materials, the GSAM provides a 35% weight saving in comparison to standard gear shift technologies made of steel and aluminum.

- The module consists of 4 double acting hydraulic cylinders which actuate shift rails for 7 forward speeds + 1 reverse gear. Each cylinder shifts between 2 gears.
- The GSAM senses the position of each shift cylinder piston with integrated hall sensor and it communicates the positions to the transmission controller.
- The GSAM reads 2 input shaft speeds with an integrated and an attached speed sensor and communicates it to the transmission controller.
- One main electrical plug communicates the signals to the transmission control unit (TCU).
- The GSAM does not require a bleeding procedure since each cylinder is utilizing specially engineered dynamic hydraulic seals that feature a self-bleeding functionality.



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