

# TECHNICAL INSIGHT

A PUBLICATION OF NSK EUROPE

## Electric Clutch Release Actuator with Torque Sensor Concept

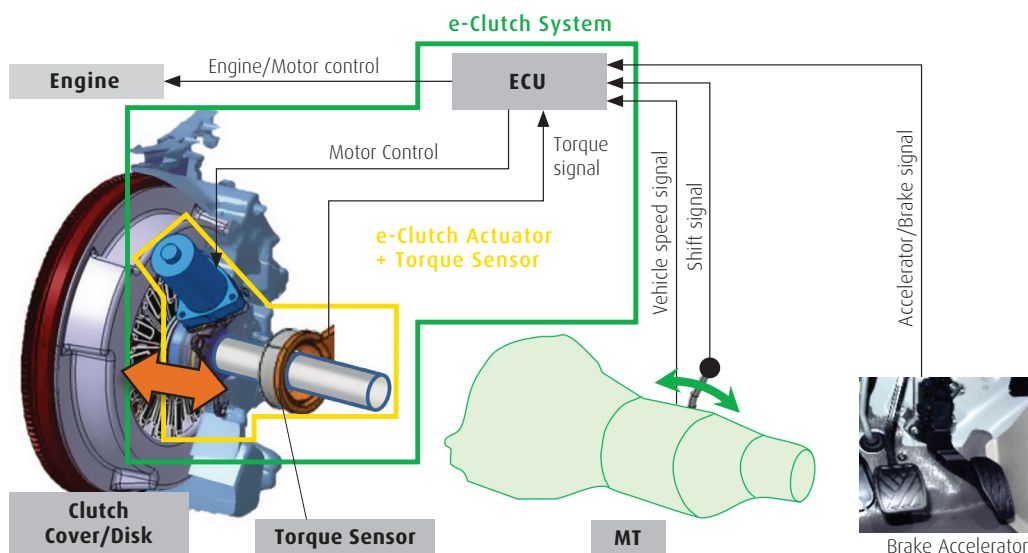
Clutch control can be optimised by using real time measured torque information



To improve shift quality and maintenance cycle

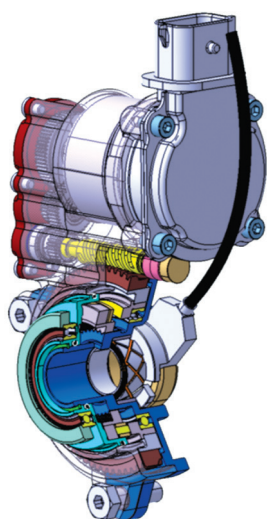
### General Description and Features of the Product (Structure and Operating Principles)

#### Target System

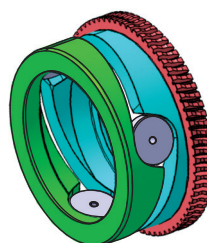


#### Key 1: Electric Clutch Release Actuator

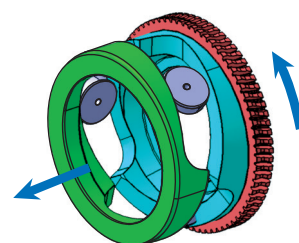
- › Actuation principle  
Converts rotary motion to linear motion using cam actuation



- › Original position



- › Actuation position



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## Key 2: Magnetostrictive Torque Sensor

### › Principle of measurement

Detects stress by magnetostrictive effect which is then converted to torque



### Features

1. Measurable from 0 rpm
2. Non-contact type sensing
3. Compact and light (30g)
4. Quick response (8msec)

e-Clutch Actuator Spec. example	
Release load	0 to 850 [N]
Stroke	7 [mm]
Weight	1.8 [kg]
Stroke speed (in 5mm)	0.1 [s]
Temperature	-40 to 120 [°C]