



**FNR with Horn**

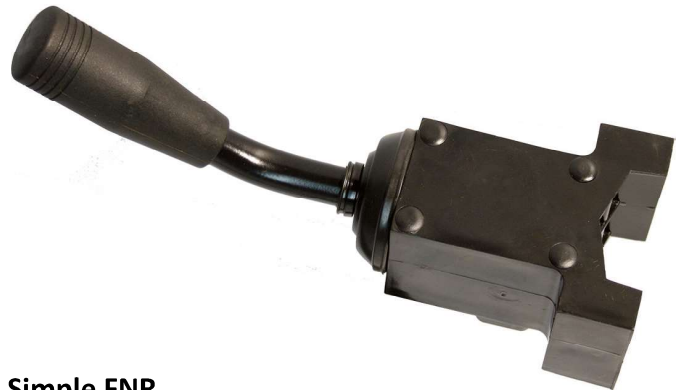
## FNR SHIFTERS

**IP67 sealed against moisture & dust**

Technowell forward, neutral and reverse shifters are expertly crafted for enhanced off-highway application performance, precision, direction, and speed control. Typical applications are backhoe loaders, dump trucks, tractors, etc. Designed to control forward and reverse operation for off & on highway drive transmissions. Our shifters are available with & without horn. We also offer flexibility in any new design applications. Our electromechanical shifters are completely sealed and built to withstand rugged conditions and harsh environments.

## FEATURES

- Designed for rugged environment
- Completely sealed (IP67 rating)
- With or without horn button
- With or without neutral lock
- 2.5 Nm torque to shift FNR
- Large sliding contacts for a solenoid load of 3A @ 12.8V (with arc suppression)
- Self-cleaning sliding contact technology
- Mounting clamp available separately with or without locating pin



**Simple FNR**

## SPECIFICATIONS

Shifters	Specifications
Mounting	left, right
Column size	38mm, 45mm, 55mm
Neutral lock	none, drop-down
Speeds	2, 3, 4 and 6
Buttons	horn, wash or kick-down
Connectors	Deutsch, wire harness with wide range of connectors
Expected life cycle	500.000 h
Lever	3 million (with drop-down neutral lock); 1 million (without drop-down neutral lock)
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Operating voltage range	1 V to 48 V
Vibration	up to 60Hz
Solenoid load	3 A @ 12.8 V with arc suppression
Handle dead weight limit	750 Newtons

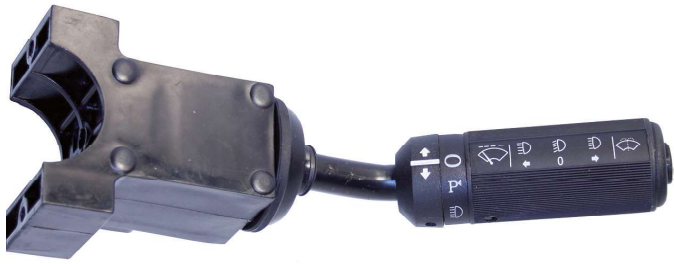
## OTHER FNR VERSIONS



**FNR Gear Shifter with Mechanical Lock**



**Multi Speed FNR**



**Combination Shifter**

## TURN SIGNAL INDICATORS

**IP67 sealed against dust & moisture**

Technowell turn signal indicators are built to perfectly complement our line of industry-leading shifters, or can be mounted as independent units. A wide variety of operations are available — from wash/wipe controls, headlamp controls and buttons to auto-cancel options. Each shifter is built to withstand harsh environments. From off-highway construction & agricultural applications, to on-highway trucks & buses, Technowell turn signals are perfectly suited for wash/wipe control and head lamp control.

## FEATURES

- Customised solutions
- Designed for rugged environment
- Completely sealed (IP67 rating)
- Wide range of optional features
- 2.5 Nm torque to shift TSI
- Large sliding contacts for a solenoid load of 3A @ 12.8V (with arc suppression)
- Self-cleaning sliding contact technology
- Flexible design capability
- Mounting clamp available separately with or without locating pin



**Turn Signal Switch**

## SPECIFICATIONS

Shifters	Specifications
Column size	38mm, 45mm, 55mm
Wash / Wipe	1 speed, hi/lo, intermittent with wash option
Lights / Buttons	turn signal, head lamp full beam, head lamp dipped, flash to pass, hazard warning / horn, wash
Connectors	Deutsch, wire harness with wide range of connectors
Auto cancel	available
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Operating voltage range	1 V to 48 V
Vibration	up to 60Hz
Solenoid load	3 A @ 12.8 V with arc suppression
Minimum life cycle (Based on 12V testing)	Turn Signal: 100.000 h (8A), Wiper 50.000 h (2A), Washer 20.000 h (2A), Head Lamp Dimmer 20.000 h (15A)
Handle dead weight limit	750 Newtons

## ACCESSORIES



**Mounting Clamp round**



**Mounting Clamp hexagonal**