



TECHNOWELL

TECHNOWELL-EUROPE

MANUFACTURERS OF OFF HIGHWAY STEERING & HALL-EFFECT TECHNOLOGY



FNR & TSI Shifters

Complete Steering Assemblies



FNR with Horn

FNR SHIFTERS

IP67 sealed against moisture & dust

Technowell forward, neutral and reverse shifters are expertly crafted for enhanced off-highway 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

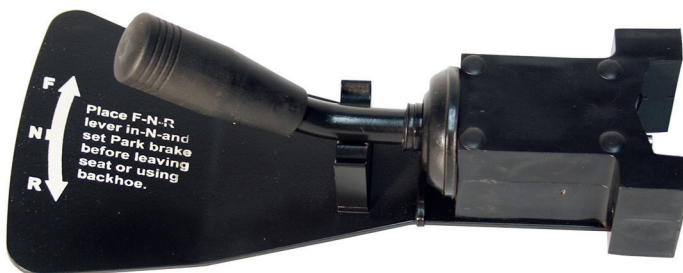


Simple FNR

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 a wide range of connectors
Expected life cycle	500.000 cycles
Lever	3 million (with drop-down neutral lock); 1 million (without drop-down neutral lock) cycles
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

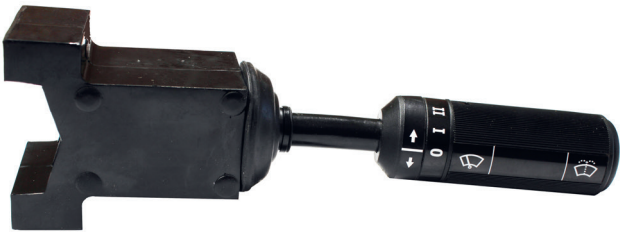
TURN SIGNAL INDICATORS

IP67 sealed against moisture & dust

Technowell turn signal indicators are built to perfectly complement our line of industry-leading shifters, or they 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

- Designed for rugged environment
- Completely sealed (IP67 rating)
- Wide range of optional features
- Customised solutions
- 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

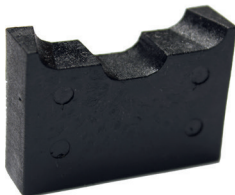
SPECIFICATIONS

Shifters	Specifications
Column size	38mm, 45mm, 55mm
Wash / Wipe	2 speed/1 speed, intermittent with wash/wipe 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



FNR Detent Lever Guide



TECHNOWELL



- Forward reverse FNR shifters
- Multifunction turn signal indicators
- Steering wheels
- Steering columns
- Hydraulic orbital steering units

TECHNOWELL GROUP

Technowell manufactures custom electro-hydraulic steering assembly solutions for the heavy duty off-highway vehicles market.

We work within the construction, agricultural, industrial forklift & electric vehicle sectors. Our strength is in the design and manufacture of customised electrical forward reverse shifters & multifunction turn signal indicators to suit the customer's specific requirements.

Our expertise comes from more than 20 years of experience in the design & installation of electrical shifters, hydraulic steering units, steering wheels & steering columns. We specialise in component parts as well as complete integrated solutions.

Technowell is driven by the principle of delivering reliable, first class, heavy duty products for off highway applications to satisfy the rigorous demands of our customers.

We strive to be "THE BEST", to ensure that quality is the foundation stone, need and strategy to attain our goals.

WE CARE:

- C - Concern for customers
- A - Aspire to be the best from the rest
- R - Relationship building approach
- E - Efficient service with quality

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