



### ENGINE OIL MANAGEMENT

HELLA has positioned itself as an innovative and well-established market leader in the field of oil management for over seventeen years. The oil sensor functions range from monitoring oil temperature, oil level and pressure to tracking viscosity and density.

The function of each individual oil sensor is essential to overall improved fuel efficiency and control of the engine oil condition during driving conditions. Modern engine oil management systems provide on-time information which reduces the total cost of vehicle ownership (For Example: Extended oil life, lower fuel consumption, etc.).

One of HELLAs key factors for successfully maintaining product leadership in the oil sensor market is continuous system development. HELLA guarantees a high level of collaboration and support in both sales and production processes, working closely with customers across the world. HELLA guarantees a collaborative interface with customers during production in sales and development in locations across the world.

#### ADVANTAGES

- → Over 17 years of expertise in engine-oil monitoring and sensor applications
- $\rightarrow$  Market leader with over 11 million oil sensors (PULS +OPS) in field
- → System advantages ensure compliance with EUR0 5/6
- → Precise temperature measurement

## PACKAGED ULTRASONIC LEVEL SENSOR + TEMPERATURE

Technical Data		
Measurement range, static	18 mm to 147 mm	
Measurement range, dynamic	18 mm to xx mm	
Accuracy level measurement	± 2 mm	
Level measurement	-10 °C to 150 °C	
Temperature accuracy	± 2 K	
Operational temperature	-40 °C to 150 °C (short time 165 °C)	
Supply voltage	9 V to 16 V	

### OIL PRESSURE SENSOR + TEMPERATURE

Technical Data	
Temperature range	-40 °C to 150 °C
Maximum temperature	160 °C (max. 100 hours)
Temperature accuracy	± 1K (140 °C to 160 °C)
Supply voltage range	4.75 V to 5.25 V
Digital output signal	PWM & SENT (Analog: on request)
Response time	2 ms
Samples rate	> 3 kHz

# PACKAGED ULTRASONIC LEVEL SENSOR + CONDITION

Technical Data	
Measurement range, static	18 mm to 147 mm
Measurement range, dynamic	18 mm to xx mm
Accurate level measurement	± 2 mm
Level measurement	-10 °C to 150 °C
Temperature accuracy	± 2 K
Operational temperature	-40 °C to 150 °C (short time 165 °C)
Supply voltage	12 V
Oil condition response	< 8 sec.

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