



**Data Sheet Supplement
Version 1.0**

Dynamic Differential Hall Effect Sensor

TLE4924C-1 E6547

For all parameters not specified in this document the TLE4926C-HT E6547 data sheet is valid.



Type	Marking	Ordering Code	Package
TLE4924C-1 E6547	24D81	SP000718170	PG-SSO-3-92

1. Absolute Maximum Ratings

Parameter	Symbol	min.	typ.	max.	Unit	Conditions
Junction temperature	T_j	-40		155	°C	-
				165	°C	2000 h (not additive)
				175	°C	1000 h (not additive)
				195	°C	168 h (not additive)
						3x1 h (additive to the other life times).

2. Operating Range

Operating junction temperature	T_j	-40			°C	-
				155	°C	2000 h (not additive)
				165	°C	1000 h (not additive)
				175	°C	168 h (not additive)
						reduced signal quality permissible (e.g. jitter).

3. AC/DC characteristics in Running Mode

Over operating range, unless otherwise specified. Typical values correspond to $V_S=12V$ and $T_A=25^\circ C$

delay time	t_d	7	12.5	18	μs	Only valid for $T_j=25^\circ C$. $T_j=-40^\circ C - T_j=175^\circ C$ $T_j=-40^\circ C - T_j=175^\circ C$ Higher magnetic slopes and overshoots reduce t_d , because the signal is filtered internal. ³
Falling edge				20 ¹	μs	
Rising edge				25 ²		

¹ only valid for the falling edge.

² Not subject to production test-verified by design/characterisation

³ measured with a sinusoidal-field with 10mTpp and a frequency of 1kHz.

4. Magnetic Characteristics in Running Mode

Minimum signal amplitude	$ \Delta B_{\min} $	0.85	1.4	1.95	mT	
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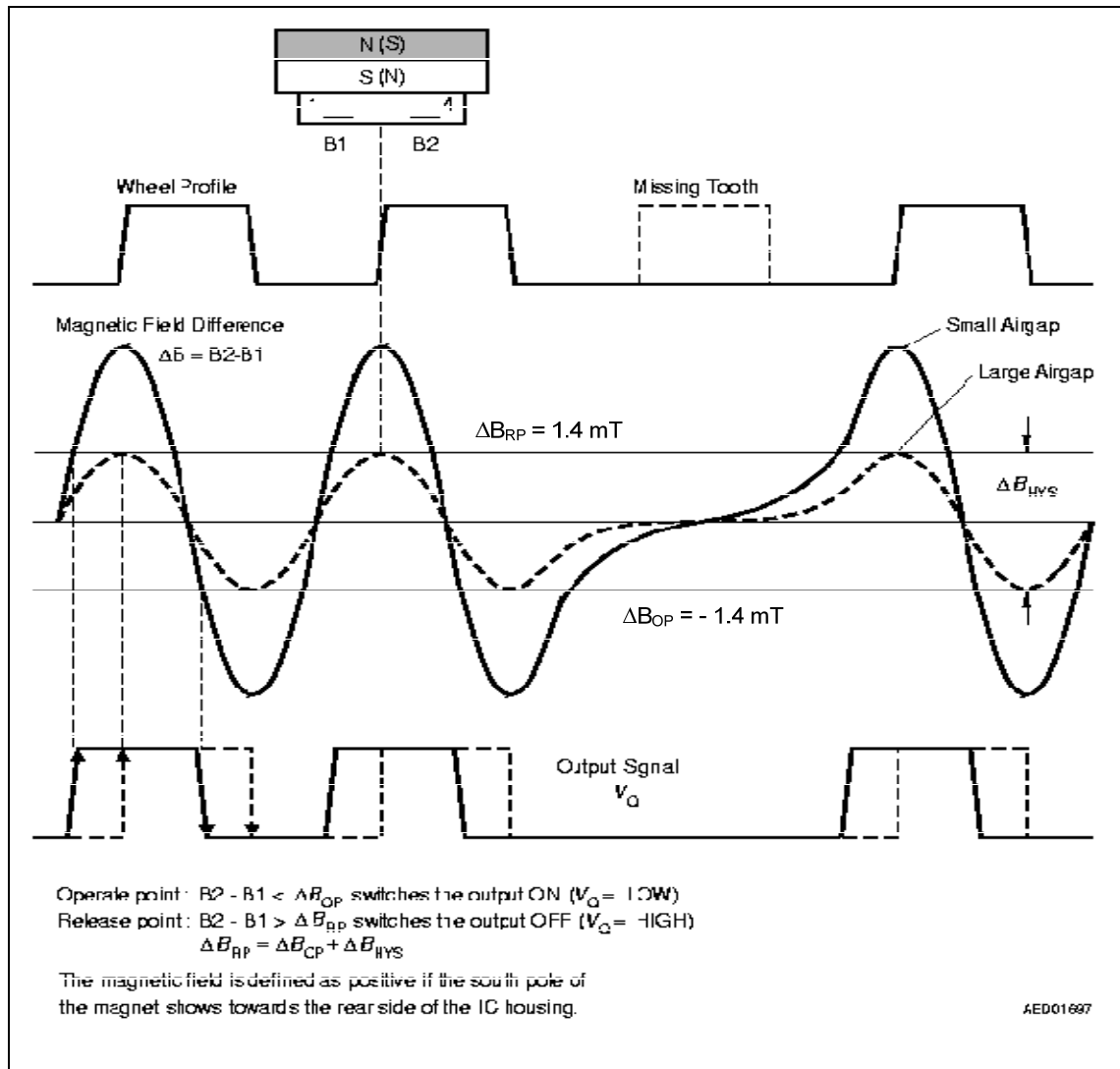


Figure 1 System operation with visible fixed hysteresis

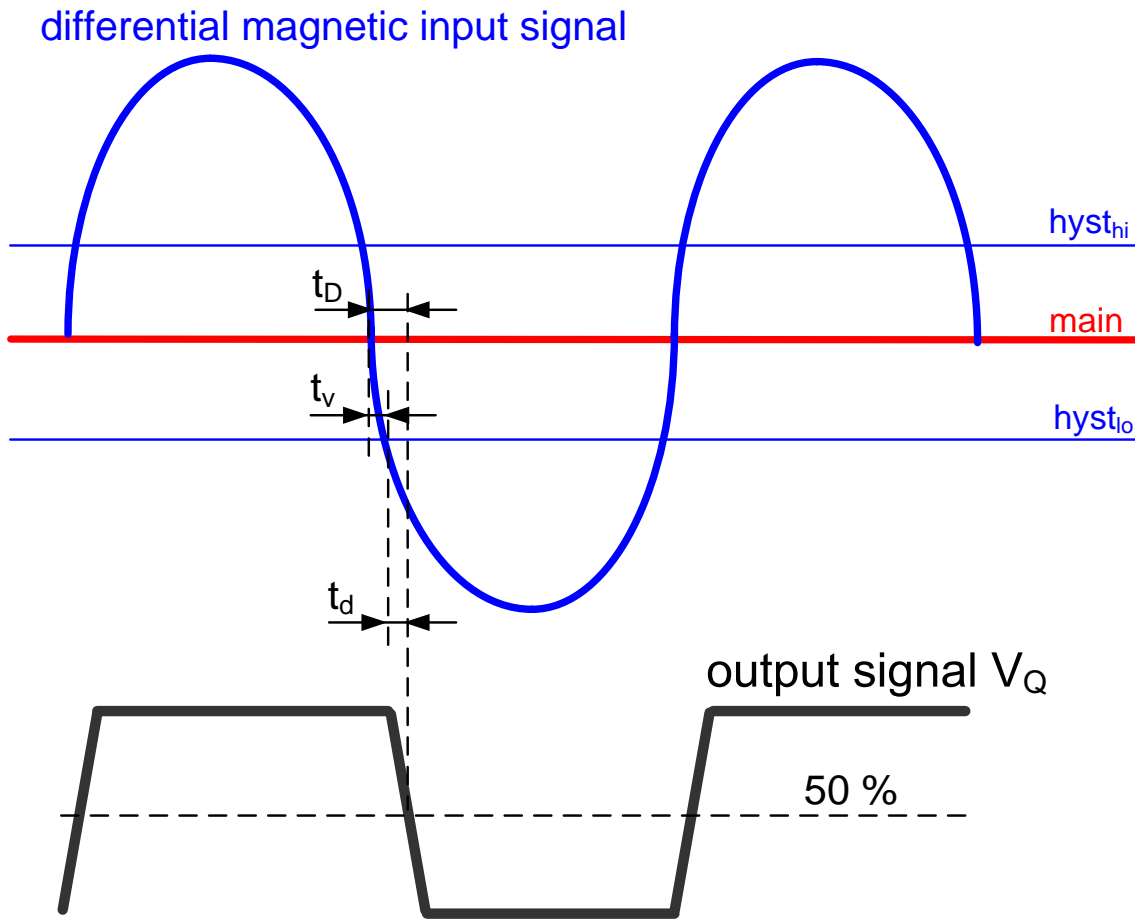


Figure 2 Delay time definitions

$$t_D = t_v + t_d$$

t_D = Delay defined from $diff_B = 0$ to 50 % of output edge

t_d = Delay on signal path

t_v = Systematic delay because of visible hysteresis concept

t_v is a function of the magnetic signal amplitude and frequency



Revision History:

November 2009

Version 1.0

Previous Version: -	
Page	Subjects (major changes since last revision)
-	-

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