

HV-Interface-IC for Sensor Applications

Body 4mm x 4mm

Features

- Supply voltage: 5 V - 36 V
- 5 V/20 mA linear regulator
- Adjustable fix frequency buck regulator (8 V - 34 V)
- 100 mA P-Type and N-Type open drain outputs, over-current and short-circuit protected
- 2 LED current sinks 2 mA
- 2 operational amplifiers
- RoHS compliant

AIC1605

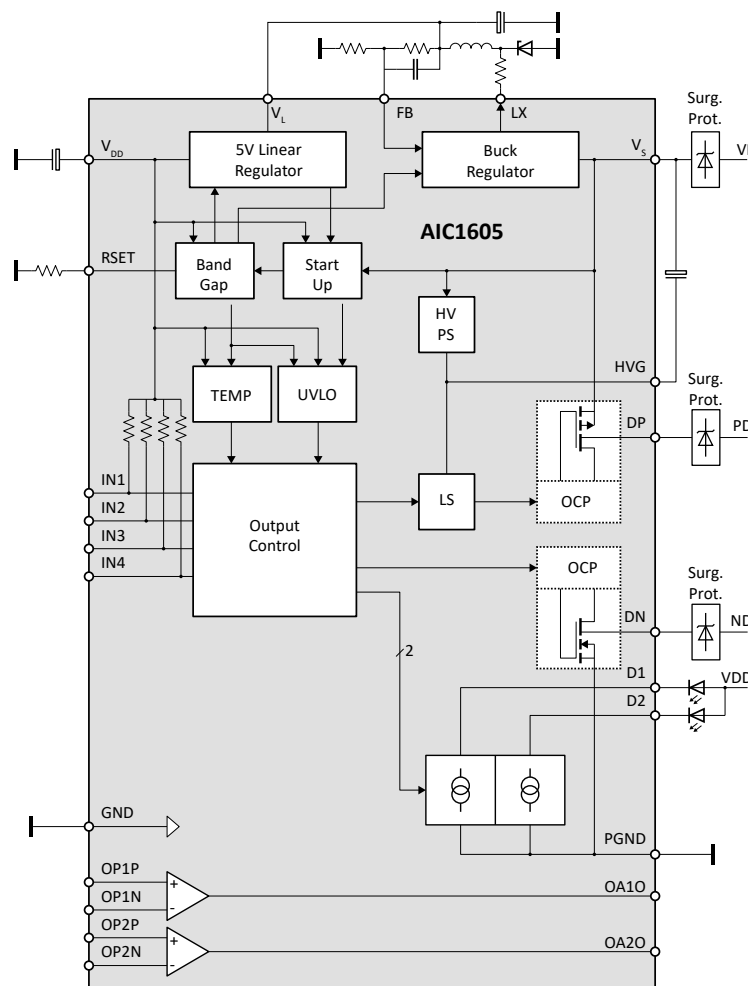
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Product Overview

The AIC1605 provides high voltage N-Type and P-Type open drain outputs, a buck and linear regulator as well as two OP-AMPs and two LED drivers. It is highly suitable for building a three-wire sensor interface. It can also be used as a supply and output stage for other applications.

Typical Applications

A wide range of target applications includes inductive proximity sensors, optical switches, sensor preamplifier, LED driver, DC motor control, among others.



AIC1605 Typical Application Circuit

AIC1605

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Product Specifications - Key Parameters

Specification Parameter	Symbol	Max	Unit
Supply voltage	V_{VS}	37.8	V
Max voltage at pins DP, DN, D1, D2, LX, VL, HVG (high voltage pins)	V_{pin_hv}	$VS+0.3$	V
Maximum analog voltage supply (if applied from external)	V_{VDD}	5.5	V
Maximum voltage at all other pins (low voltage pins)	V_{pin_lv}	$V_{DD}+0.3$	V
Drain output current	I_{DN}, I_{DP}	100	mA
Buck regulator output current for external loads	I_{B0}	50	mA
Linear regulator output current for external loads	I_{VDD}	25	mA
Storage temperature range	T_{stg}	150	°C
Junction temperature	T_J	150	°C
ESD protection test voltage (HBM, MIL-STD-883D, Method 3015.7 class 2)	V_{ESD}	2000	V

POWER, PERFORMANCE, VALUE



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