

**CAN-ASA**

High precision Airspeed and Altitude Sensor with CAN-Bus Interface

First, **UAVCAN\_ENABLE** and **UAVCAN\_SUB\_DPRES** must be set:

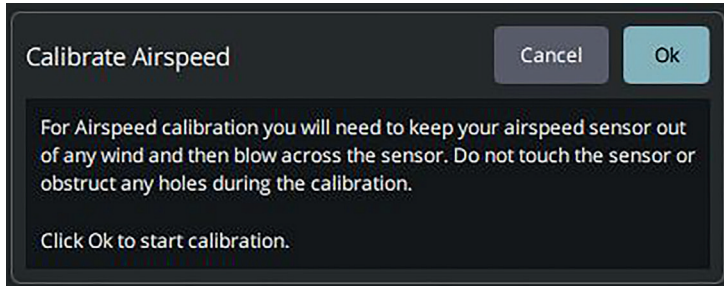
UAVCAN_BITRATE	1000000 bit/s	UAVCAN CAN bus bitrate
UAVCAN_ENABLE	Sensors and Actuat...	UAVCAN mode
UAVCAN_LGT_ANTCL	When autopilot is p...	UAVCAN ANTI_COLLISION light operating mode
UAVCAN_LGT_LAND	Always off	UAVCAN LIGHT_ID_LANDING light operating mode
UAVCAN_LGT_NAV	Always on	UAVCAN RIGHT_OF_WAY light operating mode
UAVCAN_LGT_STROB	When autopilot is a...	UAVCAN STROBE light operating mode
UAVCAN_NODE_ID	1	UAVCAN Node ID
UAVCAN_PUB_ARM	Disabled	publish Arming Status stream
UAVCAN_PUB_MBD	Disabled	publish moving baseline data RTCM stream
UAVCAN_PUB_RTCM	Disabled	publish RTCM stream
UAVCAN_SUB_ASPD	Disabled	subscription airspeed
UAVCAN_SUB_BARO	Disabled	subscription barometer
UAVCAN_SUB_BAT	Disable	subscription battery
UAVCAN_SUB_BTN	Disabled	subscription button
UAVCAN_SUB_DPRES	Enabled	subscription differential pressure
UAVCAN_SUB_FLOW	Disabled	subscription flow
UAVCAN_SUB_FUEL	Disabled	subscription fuel tank
UAVCAN_SUB_GPS	Enabled	subscription GPS
UAVCAN_SUB_GPS_R	Enabled	subscription GPS Relative
UAVCAN_SUB_HYGRO	Disabled	subscription hygrometer
UAVCAN_SUB_ICE	Disabled	subscription ICE
UAVCAN_SUB_IMU	Disabled	subscription IMU
UAVCAN_SUB_MAG	Enabled	subscription magnetometer
UAVCAN_SUB_RNG	Disabled	subscription range finder

**A reboot is then required.**

Set the airspeed parameters as follows; the factor of 1.15 was determined by comparative measurements.

ASPD_BETA_GATE	1 SD	Gate size for sideslip angle fusion
ASPD_BETA_NOISE	8.594 deg	Wind estimator sideslip measurement noise
ASPD_DO_CHECKS	0	Enable checks on airspeed sensors
ASPD_FALLBACK_GW	Disable fallback to ...	Enable fallback to sensor-less airspeed estimation
ASPD_FP_T_WINDOW	2.0 s	First principle airspeed check time window
ASPD_FS_INNOV	18.0 km/h	Airspeed failure innovation threshold
ASPD_FS_INTEG	10.0 m	Airspeed failure innovation integral threshold
ASPD_FS_T_START	-1.0 s	Airspeed failsafe start delay
ASPD_FS_T_STOP	1.0 s	Airspeed failsafe stop delay
ASPD_PRIMARY	First airspeed sensor	Index or primary airspeed measurement source
ASPD_SCALE_1	1.15	Scale of airspeed sensor 1
ASPD_SCALE_2	1.00	Scale of airspeed sensor 2
ASPD_SCALE_3	1.00	Scale of airspeed sensor 3
ASPD_SCALE_APPLY	Apply the estimate...	Controls when to apply the new estimated airspeed scale(s)
ASPD_SCALE_NSD	0.00010 1/s/sqrt(Hz)	Wind estimator true airspeed scale process noise spectral density
ASPD_TAS_GATE	4 SD	Gate size for true airspeed fusion
ASPD_TAS_NOISE	5.0 km/h	Wind estimator true airspeed measurement noise
ASPD_WERR_THR	1.980 km/h	Horizontal wind uncertainty threshold for valid ground-minus-wind
ASPD_WIND_NSD	0.10 m/s^2/sqrt(Hz)	Wind estimator wind process noise spectral density

Once you've done that, carry out the calibration; PX4 needs this to authorise take-off.



Start the individual calibration steps by clicking one of the buttons to the left.

```
[cal] calibration started: 2 airspeed
[cal] Ensure sensor is not measuring wind
[cal] Offset of 0 Pascal
[cal] Blow into front of pitot without touching
[cal] Create air pressure! (got 0, wanted: 50 Pa)
[cal] Positive pressure: OK (50 Pa)
[cal] calibration done: airspeed
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For technical questions you can contact us here:  
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