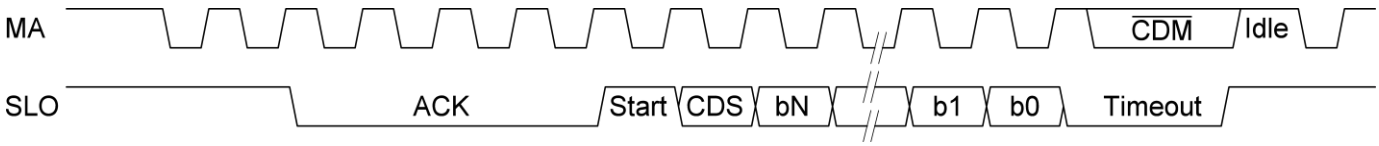
LENZ BiSS® C B3 interface:

LENZ B3 implements BiSS® C bidirectional point-to-point isochronous interface for fast acquiring angle data, read Electronic Data Sheet (EDS) and configure encoder.

For more information, please refer to BiSS® website: www.biss-interface.com.



MA — Clock pulse output of the BiSS C master;

SLO — Data output of the BiSS C slave;

ACK size — 4 T_{MA};

SCD size — 32 bits: b31…b0;

Position data size — 24 bits: b31…b8;

Error bit b7 — logic high when angle data is valid or not fully initialized;

Warning bit b6 — logic low when absolute position can't recover on restart or the air gap between the rotor and stator is too large;

CRC6 b5…b0 — the CRC polynomial for position, error and warning data is: $x^6 + x^1 + x^0$, start 0, the CRC bits are transmitted inverted.

Timing information:

	Minimum	Typical	Maximum
MA clock frequency, $1/T_{MA}$, MHz	0.1		5*
BISS timeout, us – during SCD reading – during register access	 12.6 13.5	 12.9 14	 13.2 14.5
Delay MA → SL include slave, MA input and SLO output RS485 drivers delays, ns		50	
Line delay due to cable length, MA + SLO, ns/m		10	
Idle time, ns	100		
SCD request rate, kHz $1/T_{MA}$ = 5 MHz, Idle = 100 ns			47.5

* Contact us for MA clock frequency up to 12.5 MHz.