Anatomy of in-cylinder CO₂ trace
NDIR500 fast CO&CO₂ analyzer through sampling spark plug in 1.8-litre port-fuel-injected gasoline engine at idle

Data invalid during this period due to low pressure at intake stroke and the resulting long sample gas transport delay through sampling system.

Sample transport delay

CO₂ produced by flame passing over spark plug sampling point

CO₂ in residual gas

New sample gas is delivered to NDIR500 sample head near end of compression stroke.