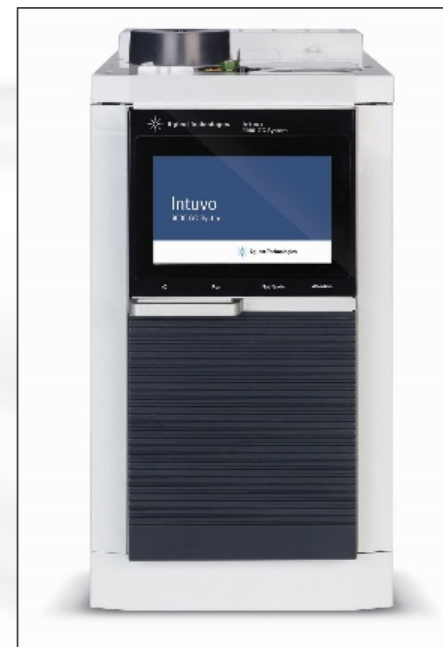Clarity™

ADVANCED CHROMATOGRAPHY SOFTWARE

CONTROL MODULES

DISTRIBUTOR TRAINING

DataApex

GC CONTROL MODULES

> Agilent

> Apix

> Ellutia

> Shimadzu

> Young In Chromass

> Etc.

HPLC CONTROL MODULES

> Agilent

> Ecom

> Knauer

> Shimadzu

> Sykam

> Young In Chromass

> Teledyne SSI

> Etc.

AS CONTROL MODULES

> Agilent

> CTC

> Spark Holland

> HTA

> Cetac

> Etc.

CURRENTLY CONTROLLED INSTRUMENTS

- Available at DataApex website or in the D004 datasheet

EFFECTS OF ADDED CONTROL MODULE
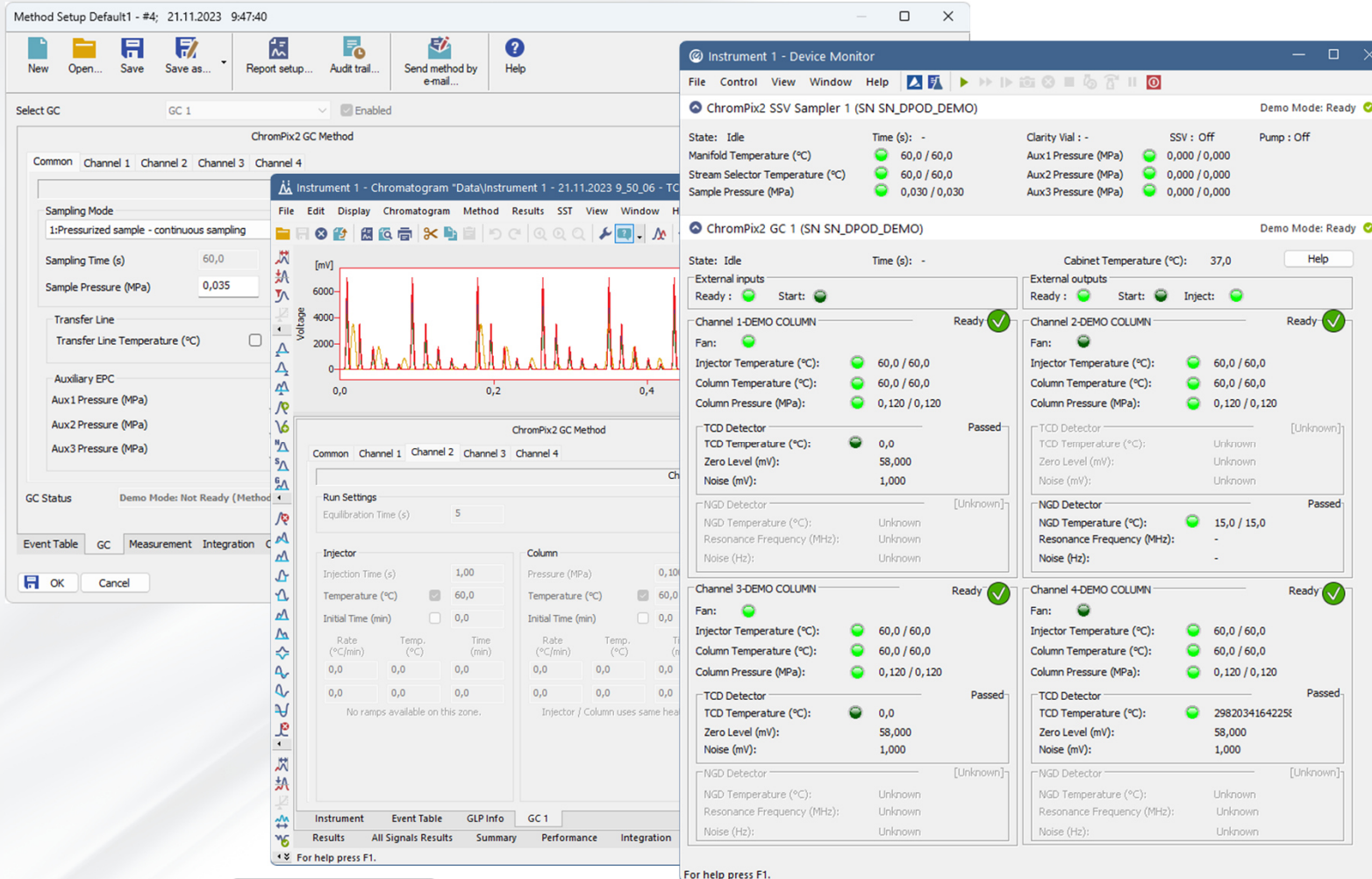

- Tab in the Method Setup
- Pane in the Device Monitor
- Tab in the Chromatogram

METHOD SENDING OPTIONS
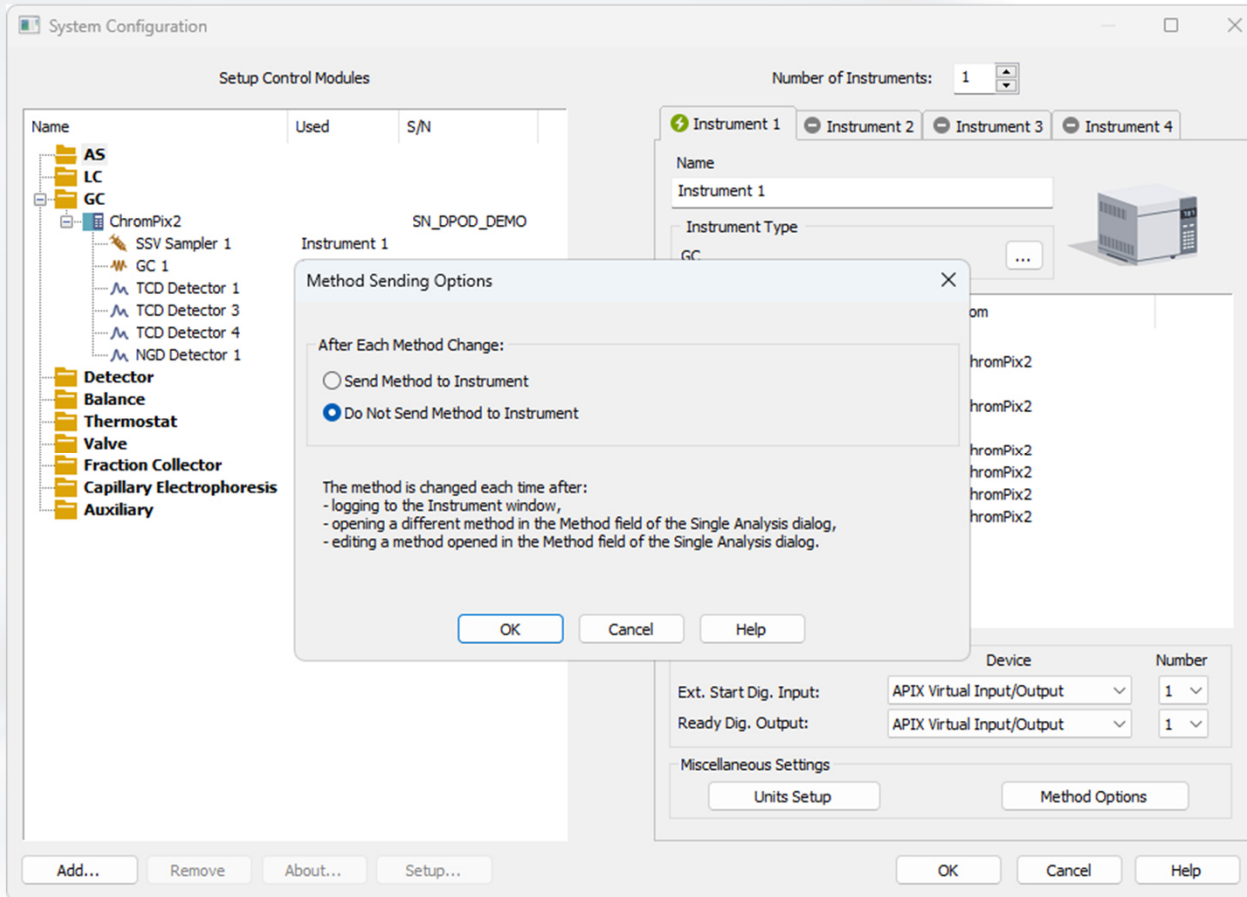
- Option to *Send* or *Do not send method* to instruments after method change

DIGITAL INPUTS AND OUTPUTS
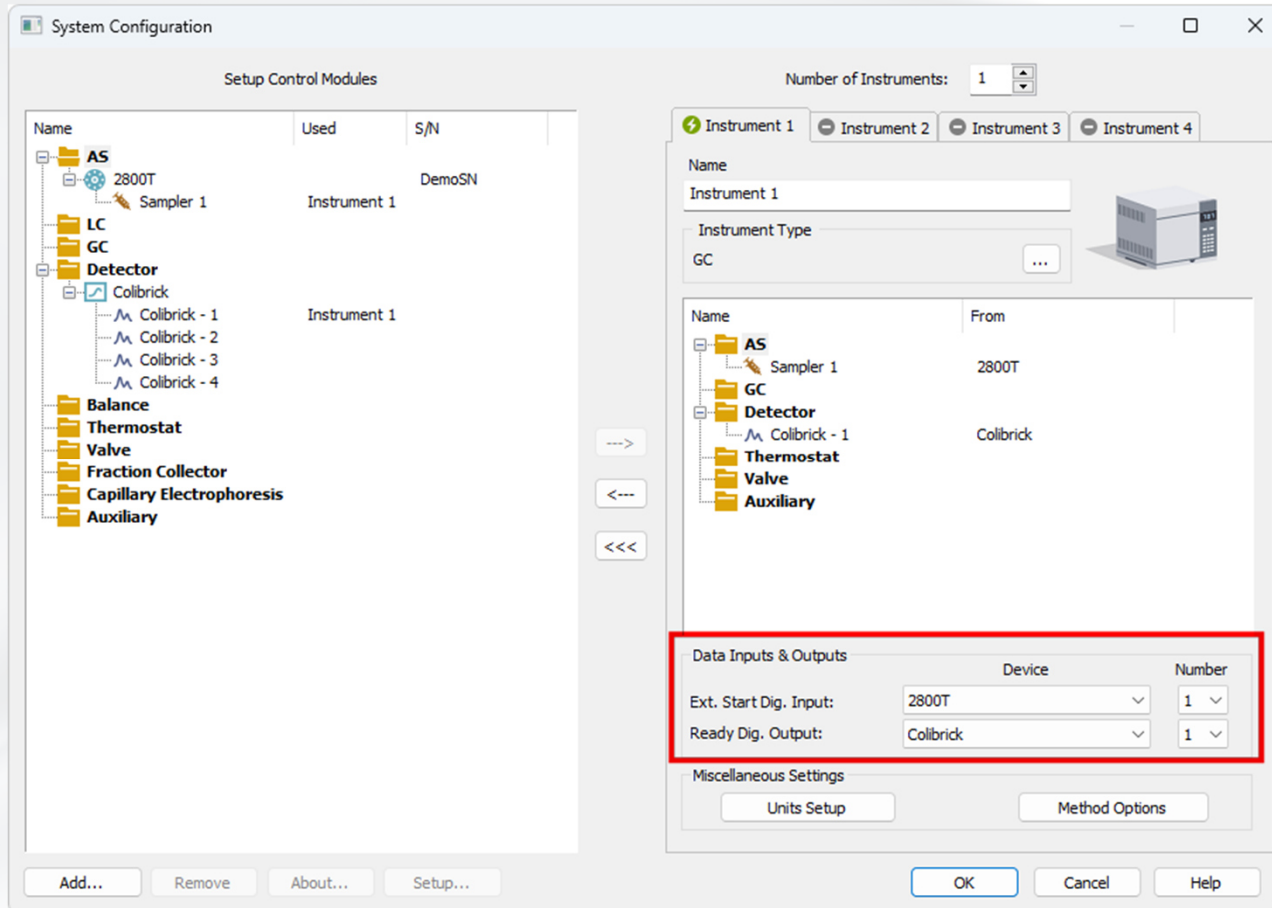
- **Ext. Start Dig. Input** – used to start the run

- **Ready Dig. Output** – controlled by Active sequence

ENABLE START FROM CLARITY

- Some control modules do not offer the Digital Start Input

- When the run will be started by Clarity or another module, the Clarity Start This Device needs to be checked

AUTOSAMPLER SYNCHRONIZATION

▪ Typical AS configurations are

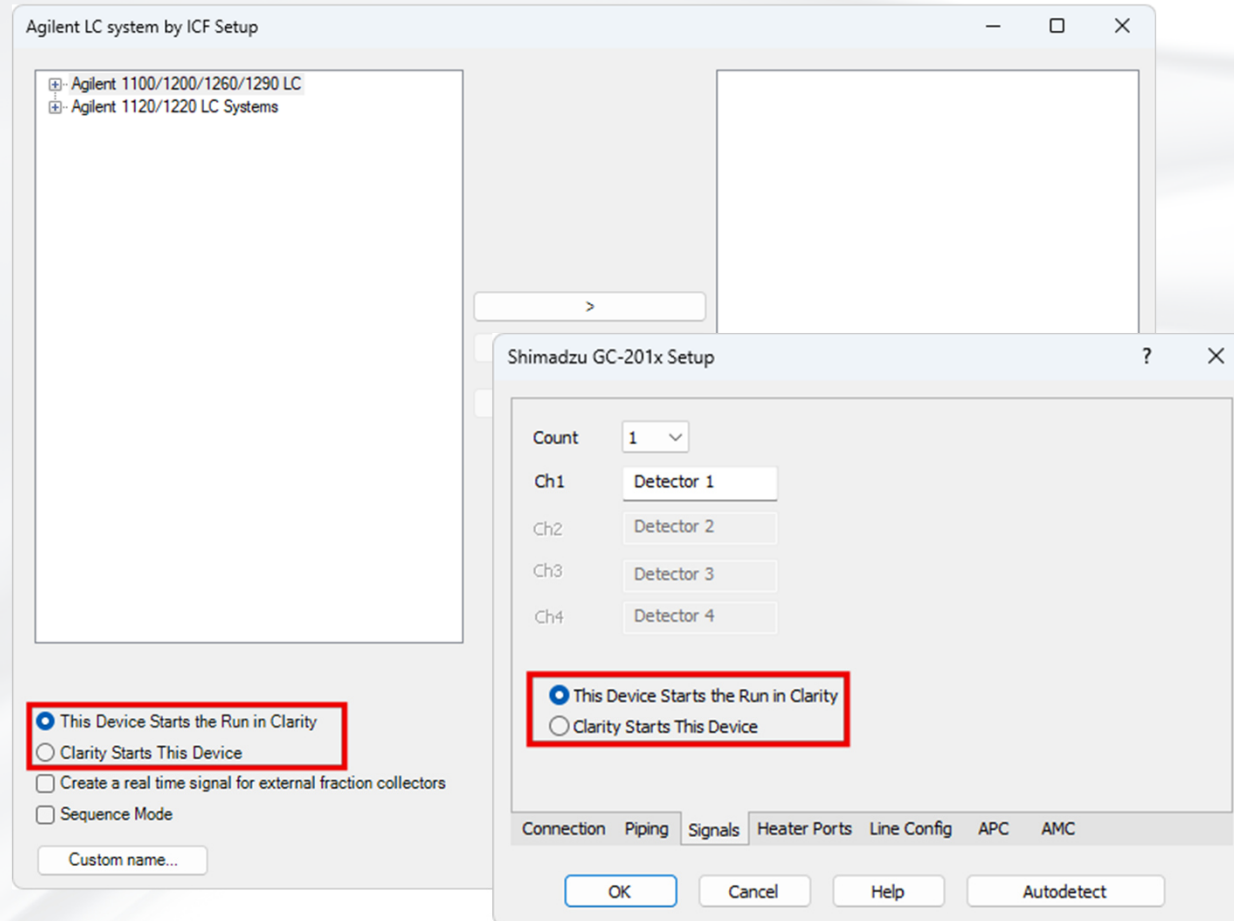- **AS** - **ACTIVE** sequence + AS Control + digital acquisition
- **AS** - **ACTIVE** sequence + AS Control + A/D converter
- **AS** + **GC** set - **ACTIVE** sequence
- **AS** + **LC** set - **ACTIVE** sequence
- **AS** - **PASSIVE** sequence (GC or LC)

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AUTOSAMPLER SYNCHRONIZATION
AS - ACTIVE SEQUENCE + AS CONTROL + DIGITAL ACQUISITION

DataApex

DHA Extension / System Configuration
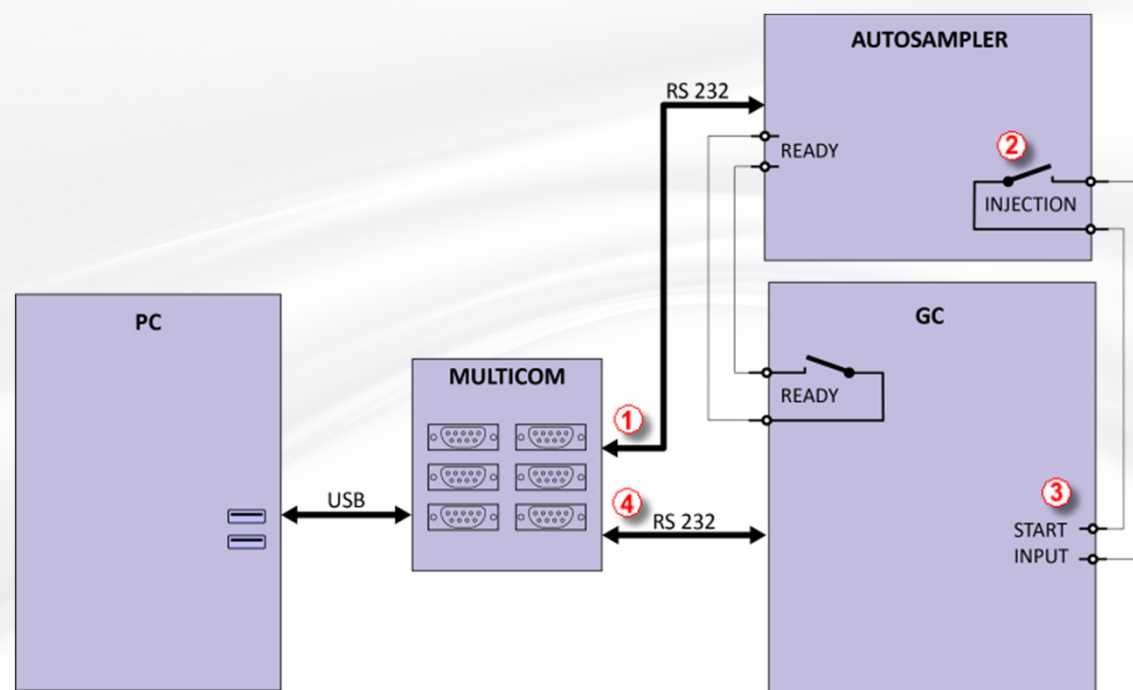
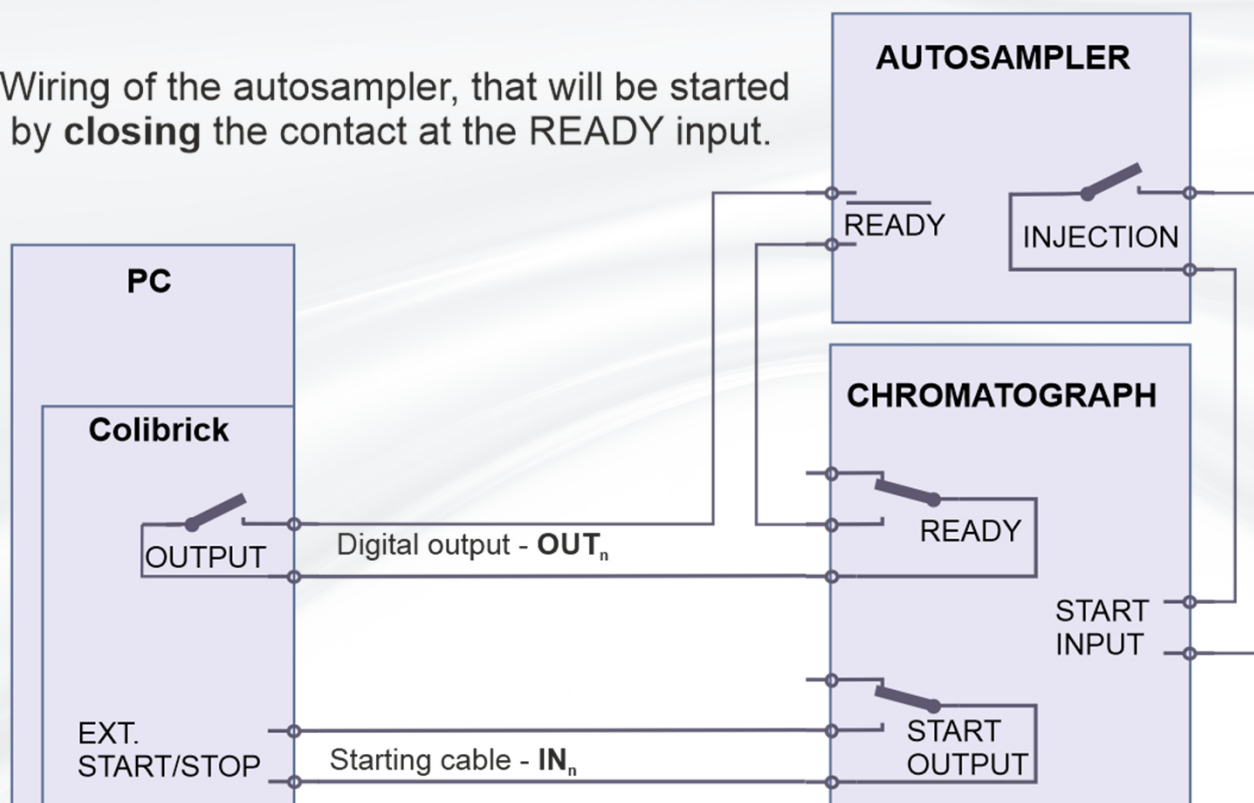# AUTOSAMPLER SYNCHRONIZATION

AS - ACTIVE SEQUENCE + AS CONTROL + A/D CONVERTER
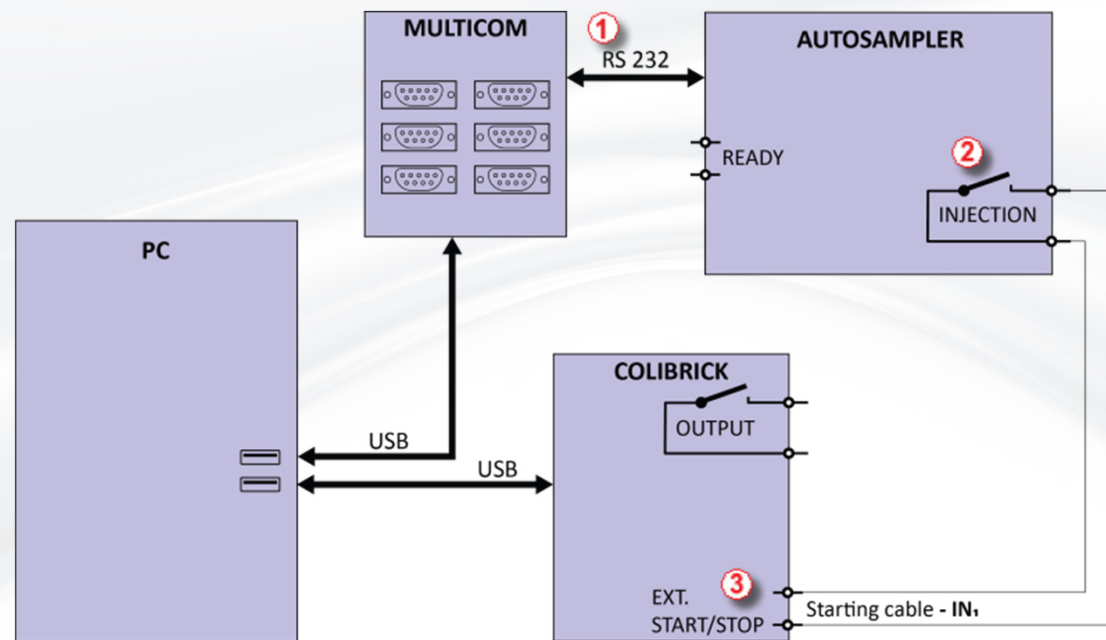
AUTOSAMPLER SYNCHRONIZATION

AS + GC SET - ACTIVE SEQUENCE

Wiring of the autosampler, that will be started by **closing** the contact at the READY input.

AUTOSAMPLER SYNCHRONIZATION

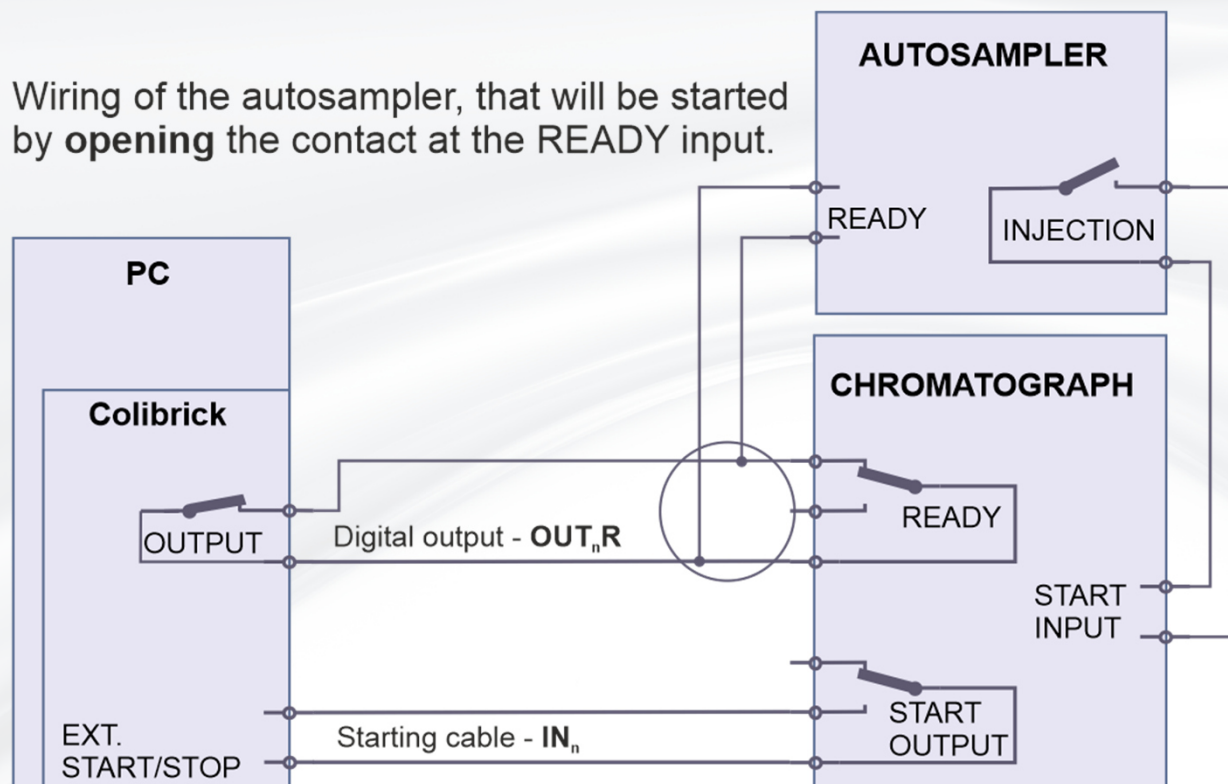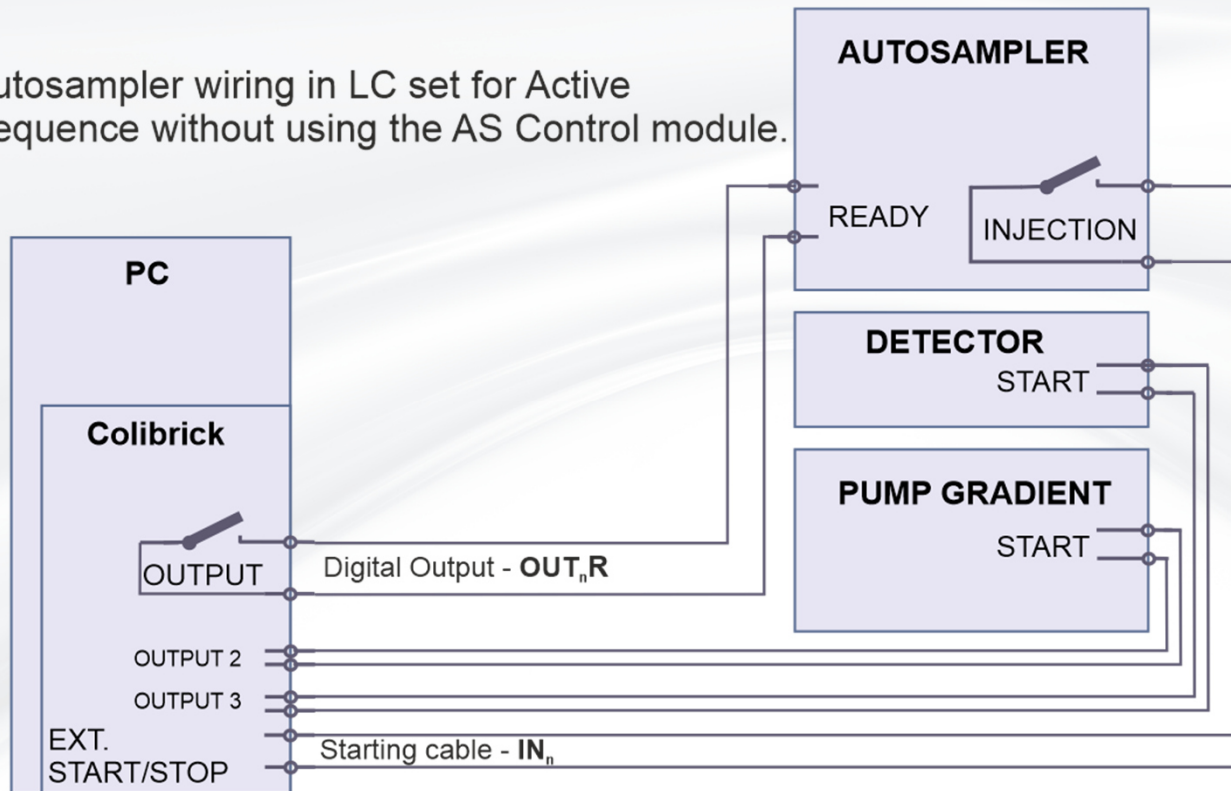## AS + GC SET - ACTIVE SEQUENCE

Wiring of the autosampler, that will be started by **opening** the contact at the READY input.
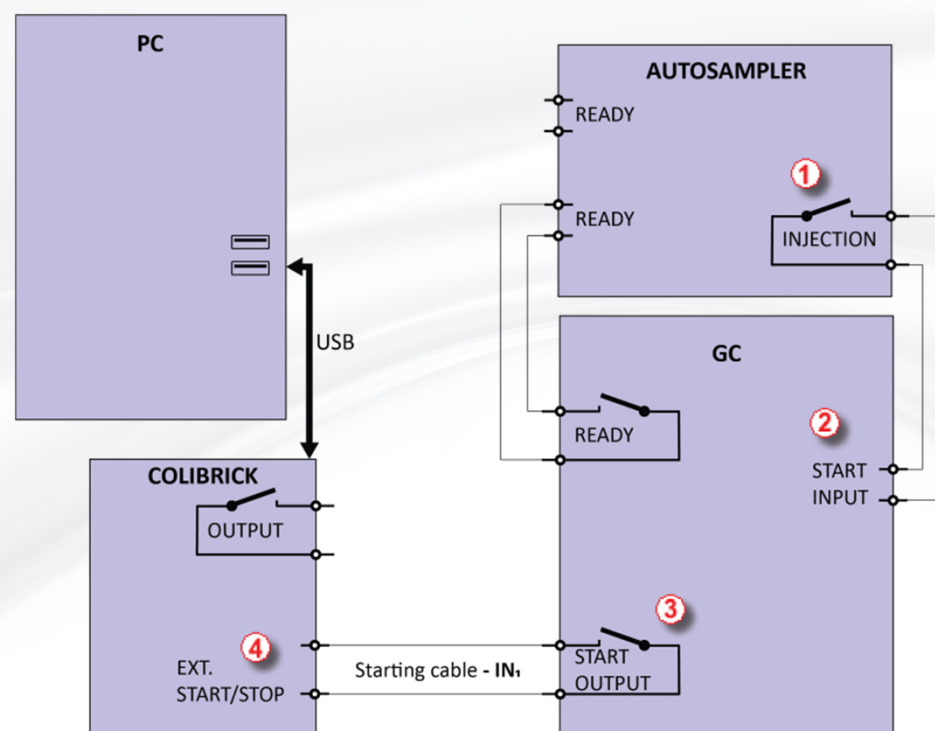
AUTOSAMPLER SYNCHRONIZATION

AS + LC SET - ACTIVE SEQUENCE

Autosampler wiring in LC set for Active Sequence without using the AS Control module.

AUTOSAMPLER SYNCHRONIZATION

AS - PASSIVE SEQUENCE (GC OR LC)

ACTIVE SEQUENCE – START BY CLARITY

- Elemental Analyzers
    - No Start Out contact on the analyzer

- Sampling by Gas valves
    - the actual sampling is programmed in the event table as part of the run

- Solution:
    - A/D card – connect Start In to Ready out
    - Virtual digital I/O module (simulates connection like a DEMO detector)

OVERLAPPED MODE IN AS

- Sequence in Clarity sends to autosampler one injection at a time

- Overlap mode is available for selected AS
  - Prep ahead mode (CTC PAL-xt series)
  - Sequence mode (Spark, CTC PAL3)
  - Overlapped mode (Sykam)
  - Use Optimised Sequence (HTA200H)

- Important for derivatization and headspace

- Method Setup – besides Autostop time, the correct analysis time must be set in the Autosampler method

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THANK YOU FOR YOUR ATTENTION

DataApex