



Clarity™

ADVANCED CHROMATOGRAPHY SOFTWARE

CONTROL MODULES

DISTRIBUTOR TRAINING

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

 DataApex
ADVANCED CHROMATOGRAPHY SOFTWARE

Petrzíkova 2583/13, 15800 Prague, The Czech Republic

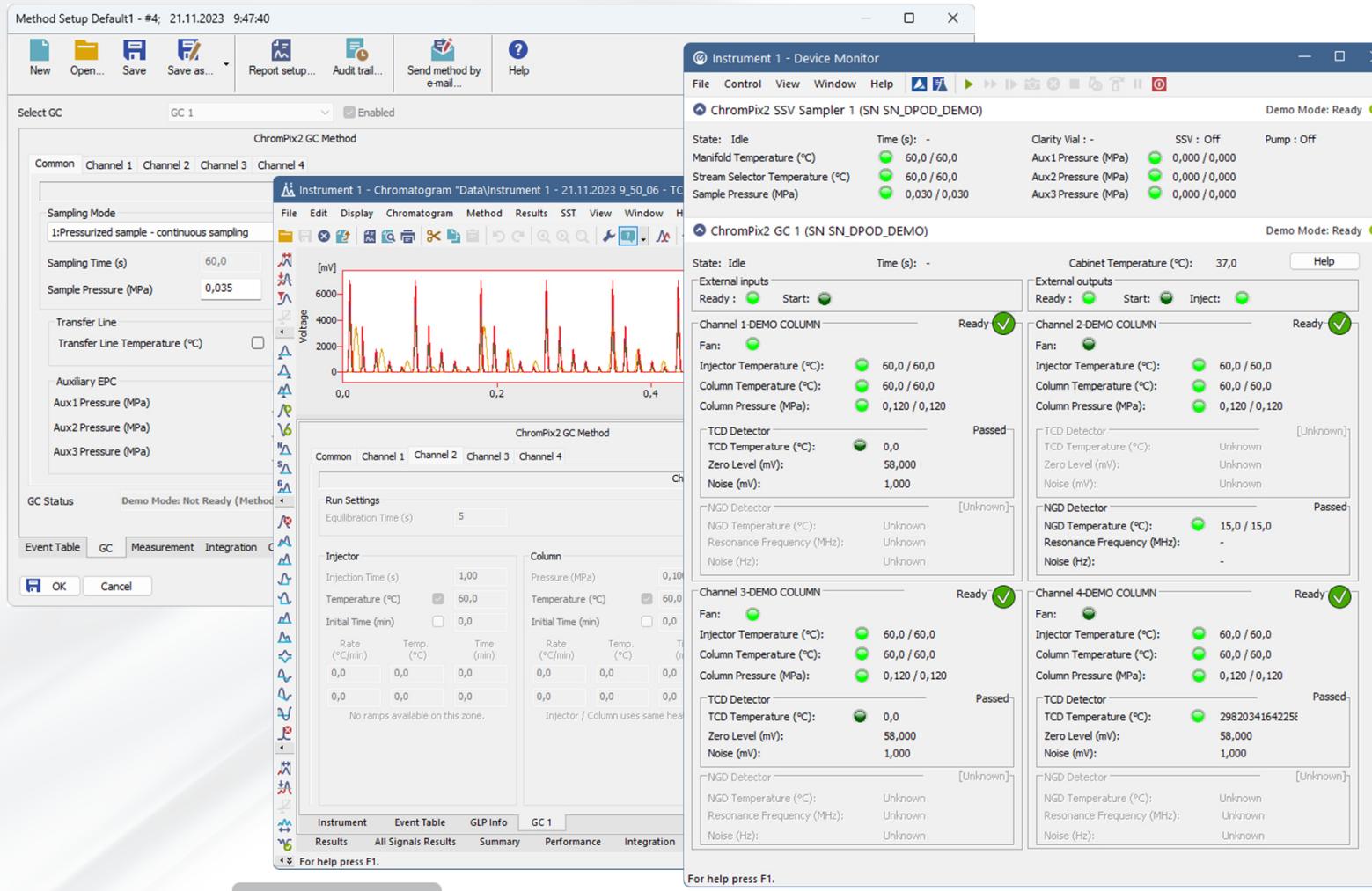
CLARITY – LIST OF CURRENTLY CONTROLLED INSTRUMENTS (version 9.0.01)

GCs (p/n A23)

Producer	Name	Interface	Status	
Agilent	4890D, 5890 II, 5890A, 6890	RS232	Ready	
Agilent	6820, 6850, 6850 II, 6890 Plus, 6890N	RS232 or LAN	Ready	
Agilent	6850, 6890 Plus, 6890A, 6890N, 7820, 7890A, 7890B, 8860, 8890, Intuvo 9000	LAN - ICF	Ready	
Agilent	7890A, 7890B	LAN	Ready	
Ample Technology Center	ATC-6900 GC	LAN	Ready	
Apix ¹	ChromPix2, TwinPix	LAN	Ready	
Dani	GC1000	RS232 + A/D converter	Ready	
Dani ^{1,2}	Master GC	RS232 or LAN	Ready	
Ellutia ^{1,3}	Series 200	RS232 + A/D converter	Ready	
Ellutia ^{1,2}	Series 300	RS232 + A/D converter	Ready	
Ellutia ^{1,3}	Series 500	LAN + A/D converter	Ready	
Fuli ¹¹	GC 9720 Plus, GC 9790 Plus	LAN	Ready	
GOW-MAC	Series 816	LAN	Ready	
GOW-MAC	Series 838	LAN - ICF	Ready	
New	Labio Analytics Group S.a.r.l. ¹	GC11-UV	USB	Testing
New	Netel (India) Ltd. ¹¹	Analyte 2900A, Chrom Lite 3000A	A/D converter + RS232	Testing
New	Netel (India) Ltd. ¹⁴	Chrom Plus 6000	LAN	Testing
	Shanghai Sunny Hengping Scientific Instrument ¹¹	GC1290	LAN	Testing
	Shimadzu	GC14C, GC17A	RS232, OPT-USB + A/D converter	Ready

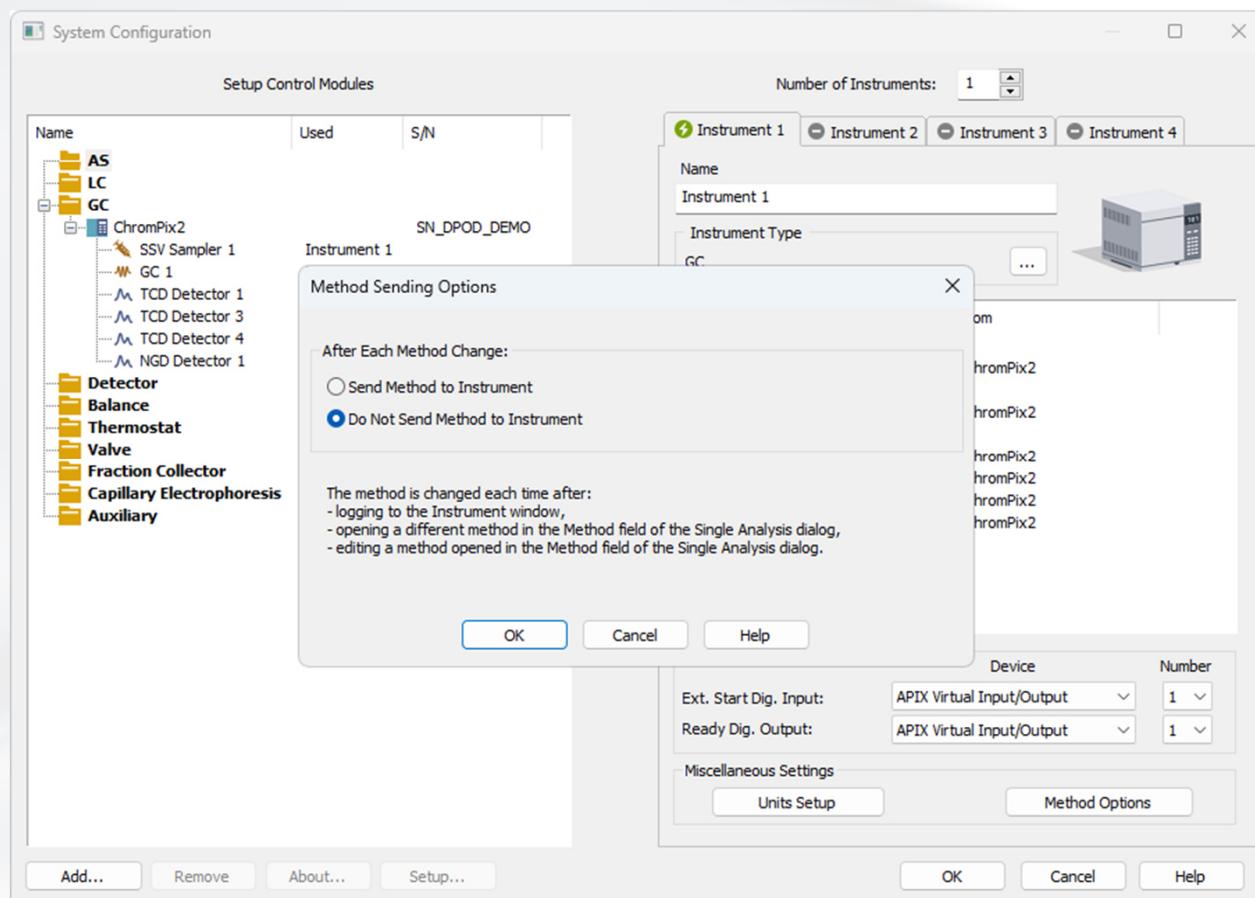
- Available at DataApex website or in the D004 datasheet

EFFECTS OF ADDED CONTROL MODULE



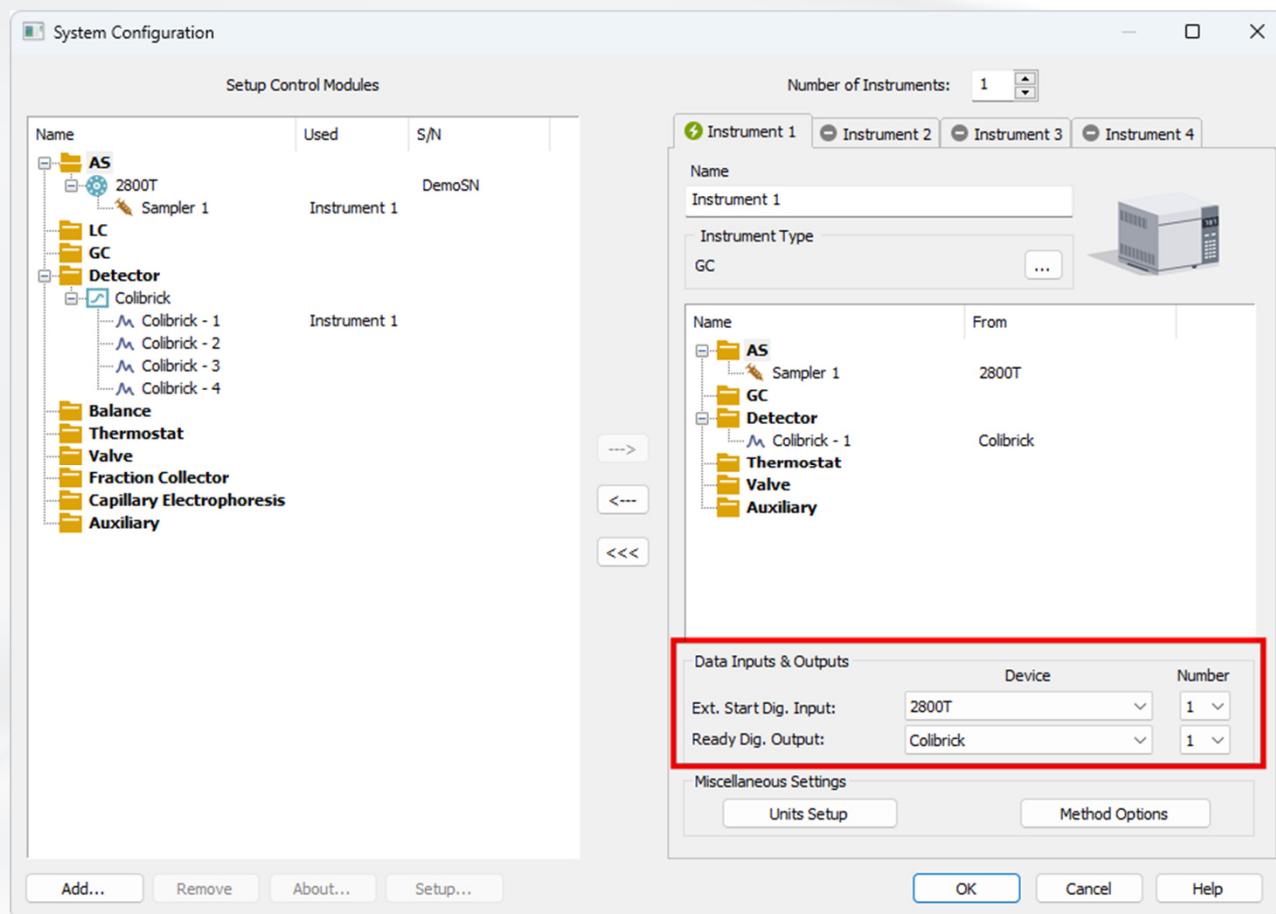
- Tab in the Method Setup
- Pane in the Device Monitor
- Tab in the Chromatogram

METHOD SENDING OPTIONS



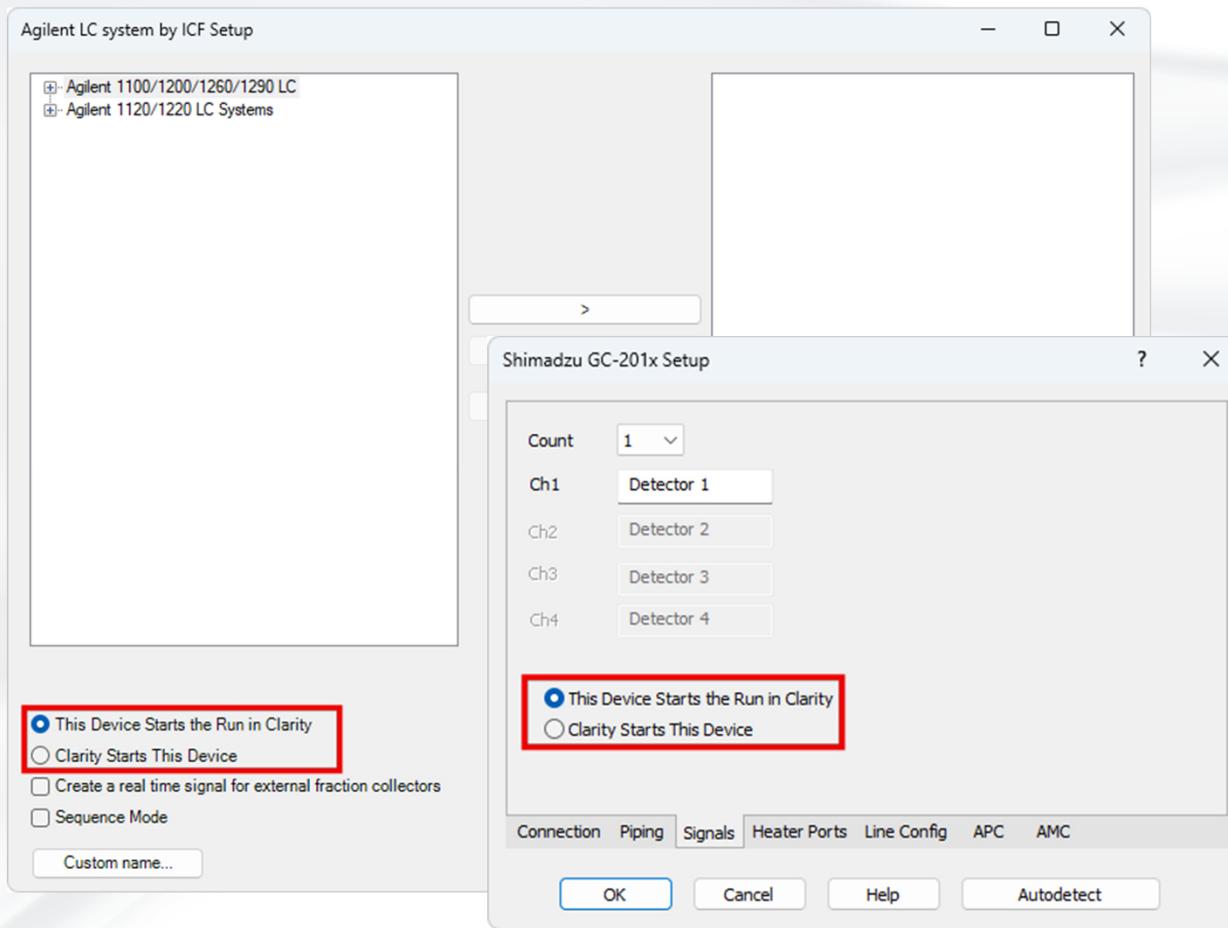
- Option to *Send* or *Do not send* method to instruments after method change

DIGITAL INPUTS AND OUTPUTS



- **Ext. Start Dig. Input** – used to start the run
- **Ready Dig. Output** – controlled by Active sequence

ENABLE START FROM CLARITY



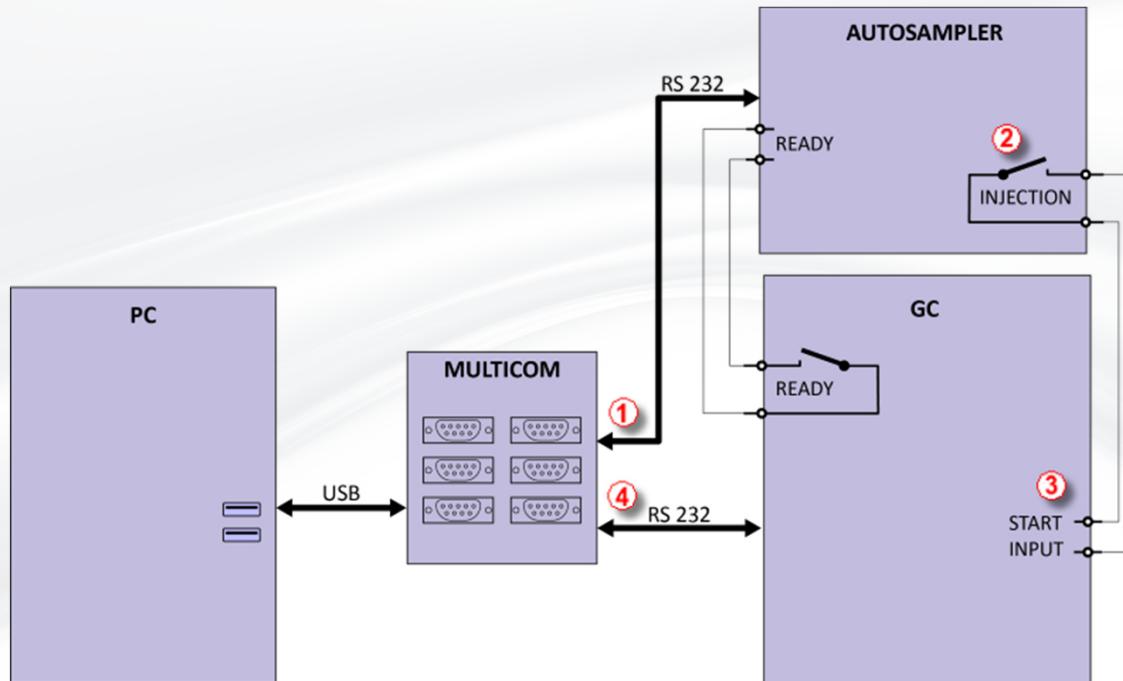
- Some control modules do not offer the Digital Start Input
- When the run will be started by Clarity or another module, the Clarity Start This Device needs to be checked

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)

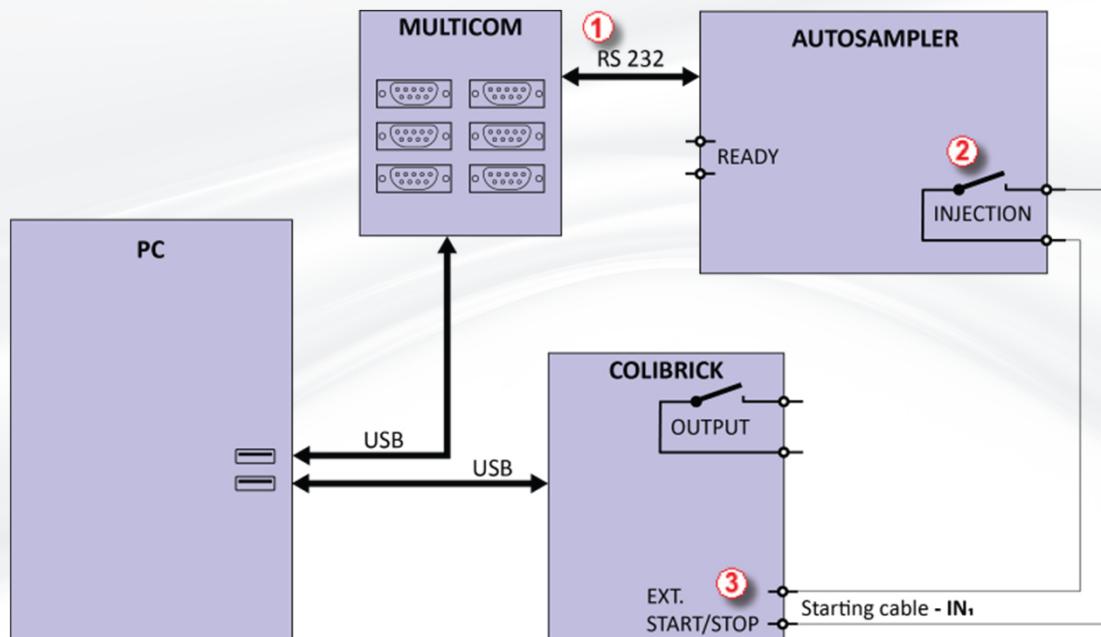
AUTOSAMPLER SYNCHRONIZATION

AS - ACTIVE SEQUENCE + AS CONTROL + DIGITAL ACQUISITION



AUTOSAMPLER SYNCHRONIZATION

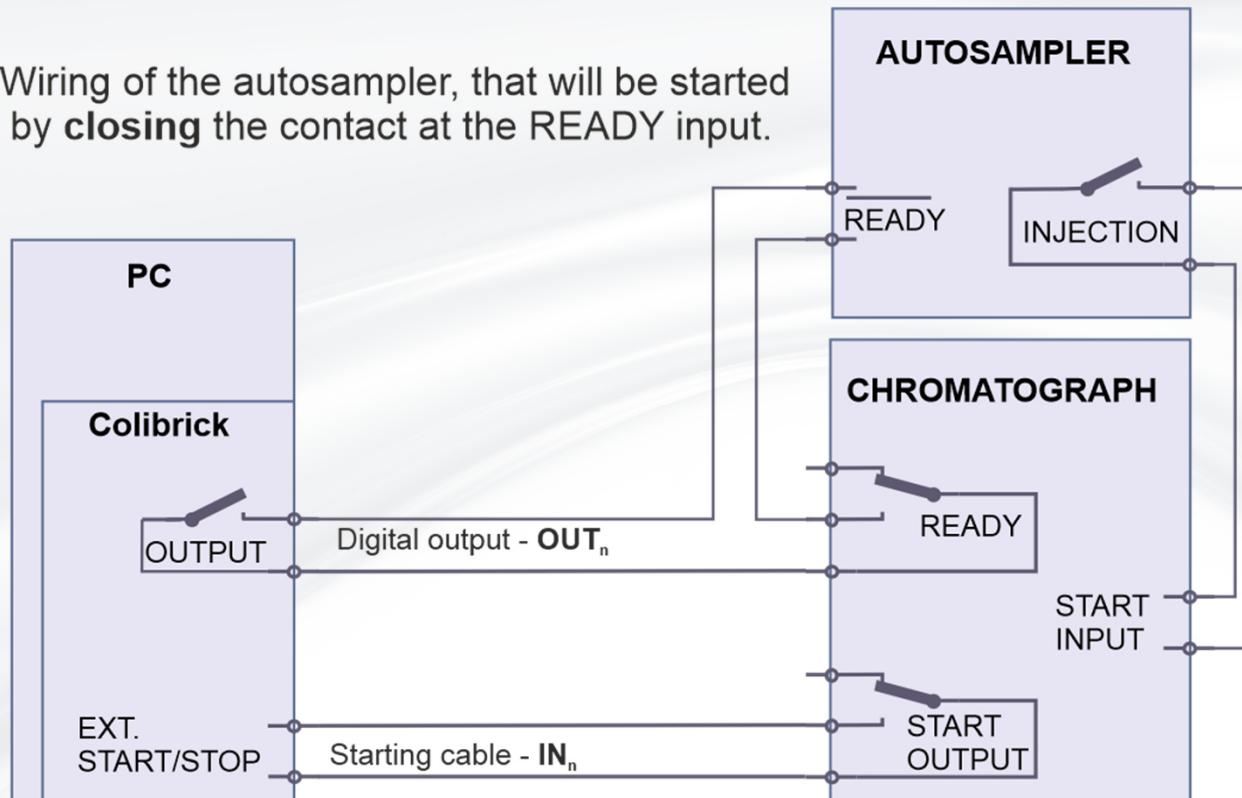
AS - ACTIVE SEQUENCE + AS CONTROL + A/D CONVERTER



AUTOSAMPLER SYNCHRONIZATION

AS + GC SET - ACTIVE SEQUENCE

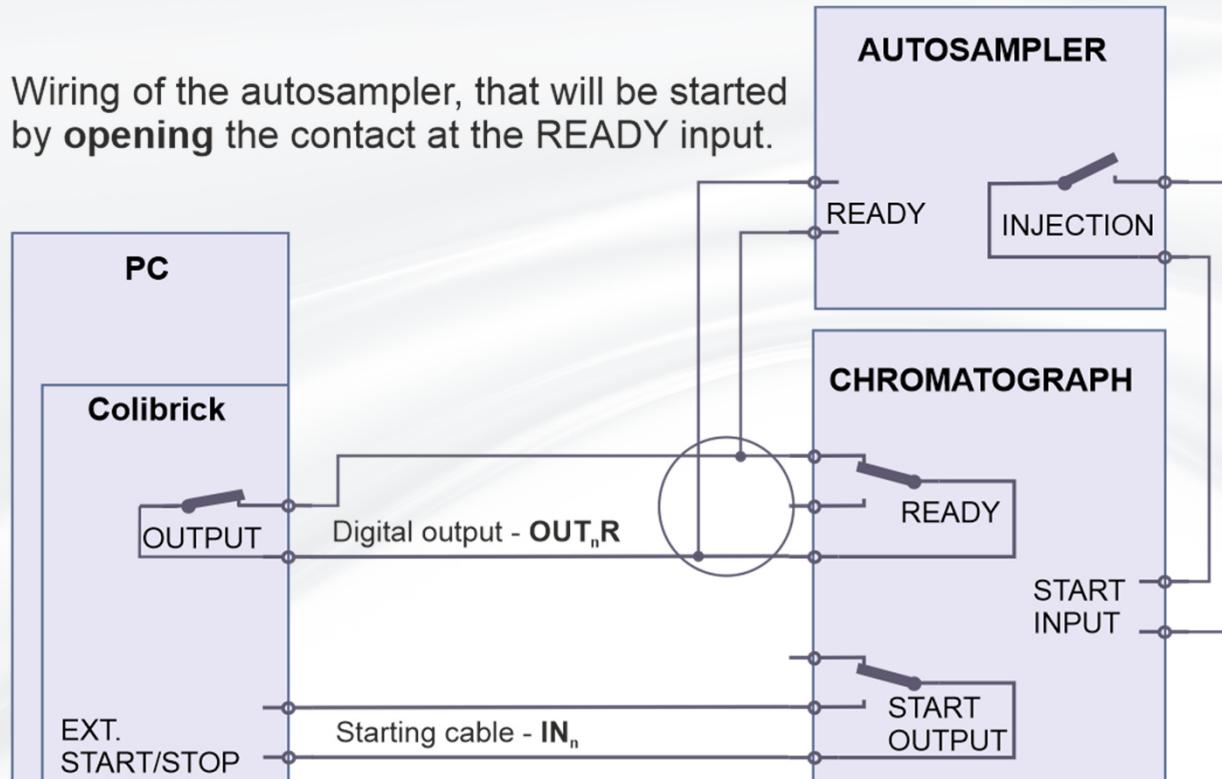
Wiring of the autosampler, that will be started by **closing** the contact at the READY input.



AUTOSAMPLER SYNCHRONIZATION

AS + GC SET - ACTIVE SEQUENCE

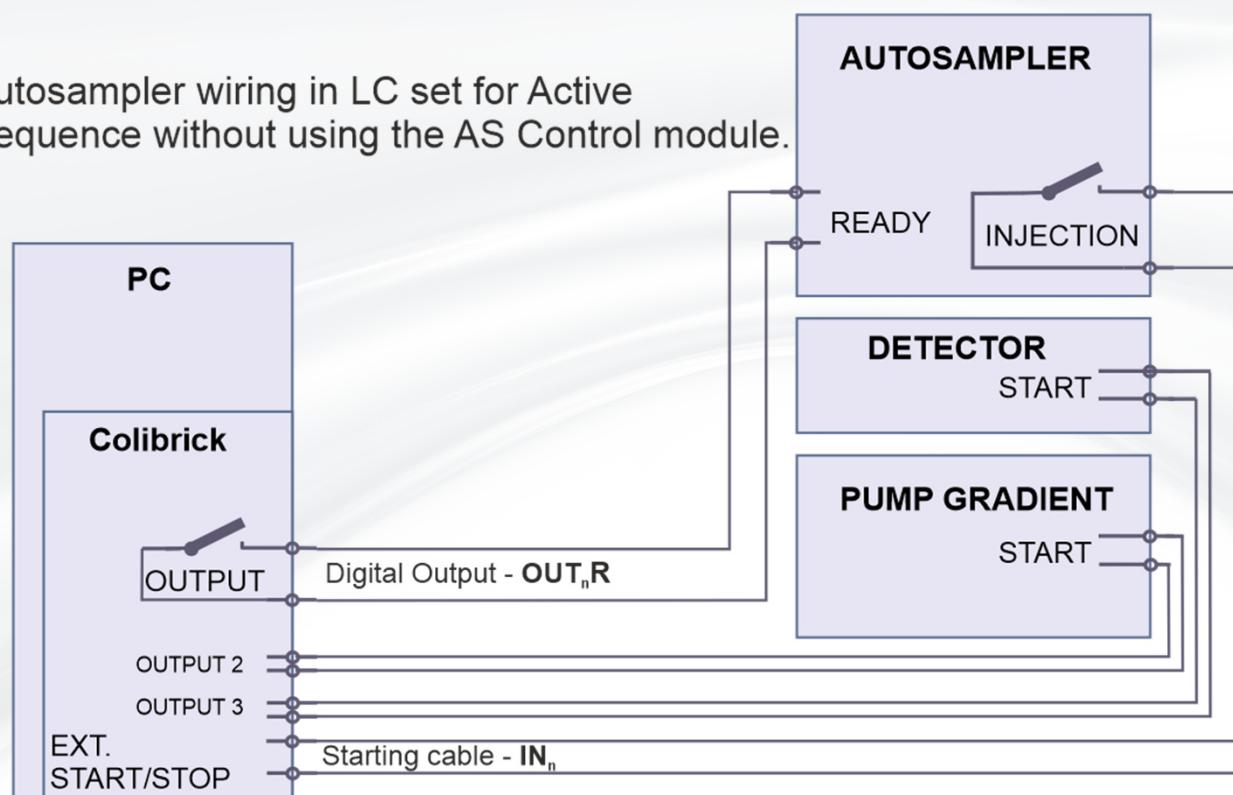
Wiring of the autosampler, that will be started by **opening** the contact at the READY input.



AUTOSAMPLER SYNCHRONIZATION

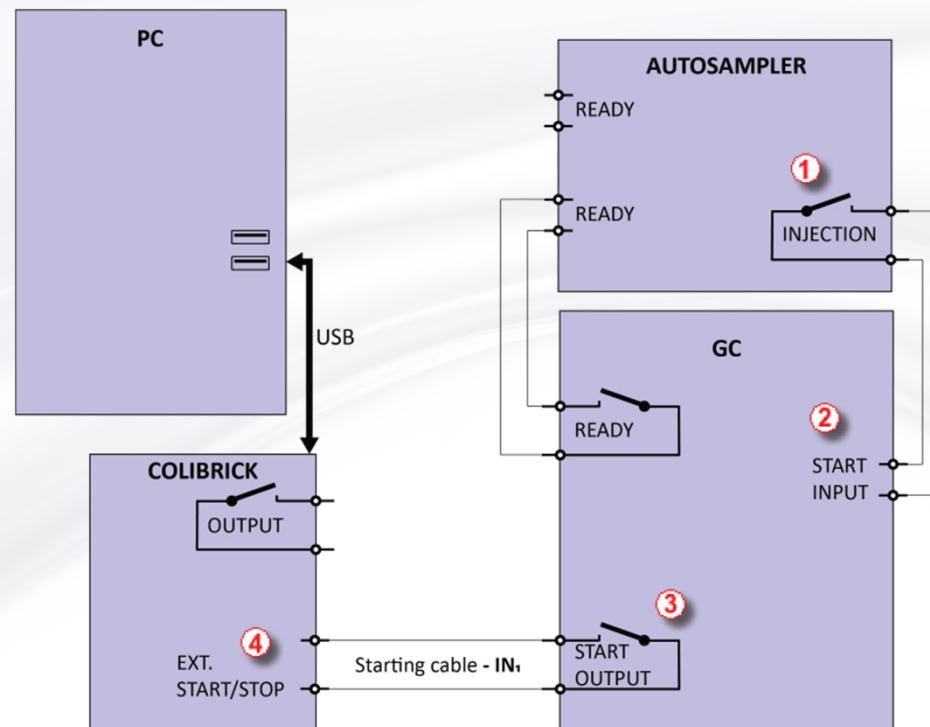
AS + LC SET - ACTIVE SEQUENCE

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