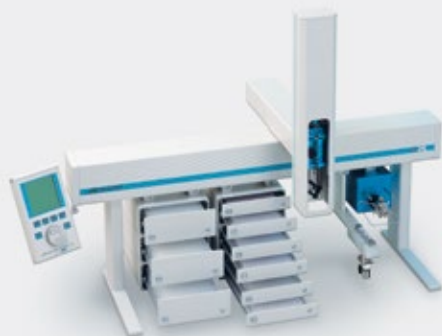


CTC PAL® SYSTEM LC PAL / PAL LC-xt

# Liquid Chromatography Autosampler Syringes Product Datasheet



## S-Line Syringes

S-Line syringes are the cost-effective choice for CTC PAL System autosampler applications. S-Line syringes deliver great performance in everyday use for HPLC injections at an exceptional value. The Gastight® version of the S-Line syringe is an ideal choice for HPLC sample injections. It incorporates a precision-machined PTFE plunger tip which creates a leak-free seal. With the tight fit in the glass barrel, the tip wipes the interior of the syringe barrel free of sample, minimizing sample carryover. This feature is particularly useful with heterogeneous samples as it reduces the chance that a deposit will occur and cause the plunger to freeze.

## C-Line Syringes

C-Line syringes incorporate several unique design features that ensure superior performance. An improperly installed syringe can cause mis-injections or bent needles due to poor alignment. The unique flange alignment design aids in installation and results in fewer bent needles while the plunger button can be adjusted to prevent plunger tip damage. An innovative direct attachment design of the needle to the barrel minimizes sample carryover.

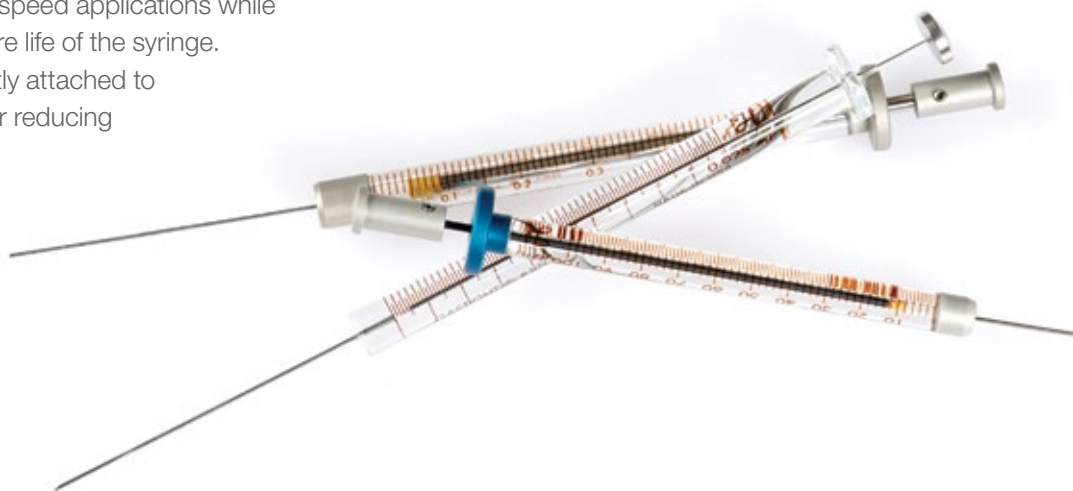
## X-Type Syringes

X-Type syringes are perfectly suited for sensitive LC samples such as proteins, peptides, phospholipids or smaller amines. The syringe features a deactivated glass barrel and needle with an inorganic coating to prevent adsorption on the inner surfaces, resulting in nearly zero sample carryover. The coating creates a smooth inner barrel surface, leading to increased syringe lifetime by lowering friction during high speed applications while maintaining a perfect seal over the entire life of the syringe.

The deactivated X-Type needle is directly attached to the barrel without using cement, further reducing the risk of sample carryover.

## Benefits of Choosing Hamilton for Your LC Analyses:

- Designed to ensure perfect PAL System autosampler compatibility
- Economically designed to give incredible value at an affordable price
- Manufactured to strict tolerances for reproducible results from injection to injection
- Wider solvent range capability for more applications
- New flange alignment design results in fewer bent needles
- Direct needle-to-barrel connection minimizes dead volume and carryover



# Unique C-Line and X-Type Features

- Innovative attachment design of the needle to the barrel reduces carryover and ghost peaks
- Unique fitting process custom fits each plunger to the matching barrel to reduce drag force
- Built to CTC Analytics' specifications



Unique flange design for accurate syringe installation  
Adjustable button to prevent plunger tip damage



Improved needle hub design for zero carryover  
Color-coded hub for quick needle volume identification

## CTC PAL System Autosampler Syringe Ordering Information

Volume	Hamilton P/N S-Line	Hamilton P/N C-Line	Hamilton P/N X-Type	Syringe Type	Description	Gauge	Point Style
10 µL	—	203073	—	Microliter	Model 701 CTC SYR (6.6 mm)	22s	3
10 µL	67444-01	203194	—	Gastight	Model 1701 CTC SYR (6.6 mm)	22s	3
25 µL	—	203274	—	Gastight	Model 1702 CTC SYR (6.6 mm)	22s	3
25 µL	67446-01	203075	204475	Gastight	Model 1702 CTC SYR (7.9 mm)	22s	3
50 µL	67450-01	—	—	Gastight	Model 1705 CTC SYR (6.6 mm)	22	3
50 µL	—	—	204379	Gastight	Model 1705 CTC SYR (7.9 mm)	22s	3
100 µL	—	203235	204400	Gastight	Model 1710 CTC SYR (6.6 mm)	22	3
100 µL	67452-01	203077	204452	Gastight	Model 1710 CTC SYR (6.6 mm)	22s	3
250 µL	67442-01	203079	—	Gastight	Model 1725 CTC SYR (7.9 mm)	22	3
500 µL	67448-01	203349	—	Gastight	Model 1750 CTC SYR (7.9 mm)	22	3

\*Note: S-Line syringes use a cemented needle (N); the C-Line and the X-Type use the innovative Fixed Needle (FN) design.

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