

xQR41 Series MicroDot™ Needle Valve Technology

For precise fluid dispensing control

Featuring unique QR (Quick Release) technology, a 60% smaller form factor, and an exchangeable modular design for a new level of customization specific to your dispensing application needs.



xQR41 Series MicroDot™ needle valve technology provides precise, consistent deposit control of assembly fluids in a smaller footprint and a unique modular design for optimal performance, value, and benefit.

The patent pending, tool-free QR clasp design allows for easy removal of the fluid body to replace wetted parts within seconds. Configure the xQR41 MicroDot valve with a Backpack™, Mounting Block, or 90° low-profile air inlet actuation to quickly meet requirements specific to your applications.

Ideal for automated assembly processes, the smaller dimensions and form factor allow the xQR41 needle valve to dispense in tighter spaces and at more complex angles, creating new manufacturing opportunities. The flexibility to mount more valves per fixture plate provides greater output per batch.

Features

- 60% smaller form factor than conventional needle dispense valves.
- Precision dispensing control. Consistent microdots as small as 150 μm (0.15 mm) (0.006") diameter.
- Exchangeable, modular design.
- Zero dead fluid volume.
- Available with PEEK wetted parts for dispensing reactive adhesives.

Benefits

- Modular design provides infinite configurability for greater flexibility.
- QR (Quick Release) clasp allows fast, easy serviceability.
- Lightweight construction reduces TTA automation motor and belt wear.
- Less retained volume in fluid body reduces fluid waste.
- 360° rotational fluid body movement allows optimal positioning.

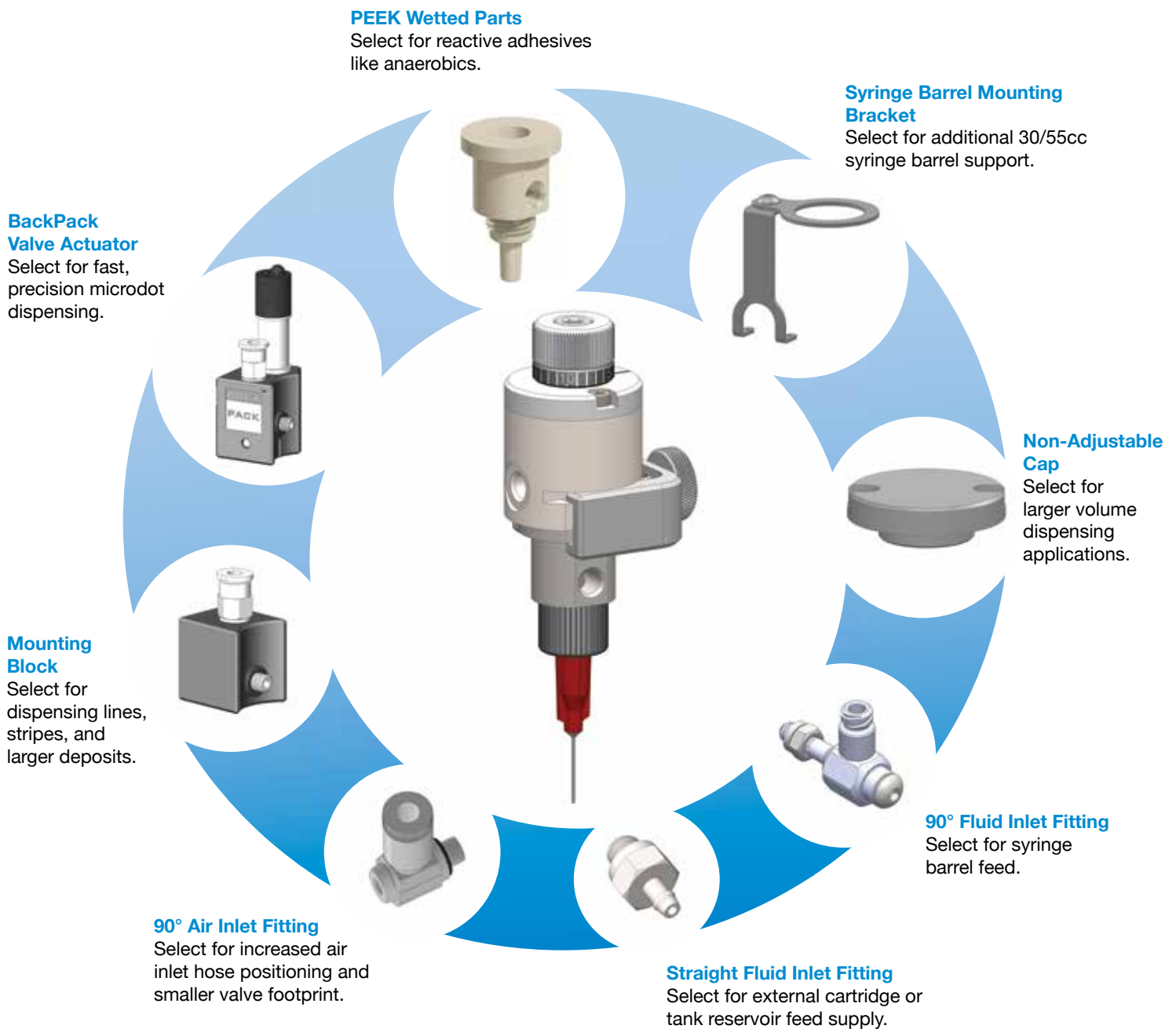


more info



xQR41 Series MicroDot™ Needle Valve Technology

Exchangeable modular design provides a new level of customization for your specific dispensing applications.



xQR41 Valve Series

Specify P/N to Order

Standard xQR41	PEEK* xQR41	Description
7360817	7361761	xQR41 Valve with BackPack and Stroke Control Knob
7360819	7361762	xQR41 Valve with BackPack and Non-Adjusting Cap
7360824	7361763	xQR41 Valve with Mounting Block and Stroke Control Knob
7360825	7361764	xQR41 Valve with Mounting Block and Non-Adjusting Cap
7360821	—	xQR41 Valve with BackPack, Stroke Control Knob, and Bullet End Needle
7360823	—	xQR41 Valve with Mounting Block, Stroke Control Knob, and Bullet End Needle

Note: Use bullet end needle with smaller diameter 30 and 32/33 ga tips for more consistent microdot dispensing. Not recommended for use with 22, 23, or 25 ga general purpose tips. xQR41 valves with PEEK wetted parts resist curing from reactive materials such as anaerobics.

*Polyetheretherketone

Replacement Parts

Partial listing of exchangeable components only. Consult EFD for full listing of available parts.



P/N	Description	Comment
7361396	xQR41 Backpack Actuator	BackPack Actuator complete with air hose, 4 W solenoid, and cable assembly



P/N	Description	Comment
7361397	xQR41 Mounting Block	Mounting Block complete with 4 mm push-in fitting and air hose



P/N	Description	Comment
7361398	90° Swivel Air Inlet Fitting	90° Swivel Air Inlet Fitting (order air hose separately)



P/N	Description	Comment
7020671	M5 x 4.0 mm Barb Fitting	For external cartridge or tank feed supply reservoirs



P/N	Description	Comment
7361400	Non-Adjustable Cap	Select for larger volume dispensing applications not requiring stroke adjustment



P/N	Description	Comment
7361404	Barrel Support Bracket	Select for additional 30/55cc syringe barrel support



P/N	Description	Comment
7361411	90° Luer Inlet Fitting	Select for direct syringe barrel feed connection



P/N	Description	Comment
7361775	xQR41 PEEK Fluid Body Kit	Designed to resist curing from reactive adhesives such as anaerobics (kit includes fluid body, fluid inlet fittings, and tubing)
7361998	PEEK needle-and-piston assembly, bullet end	

Specifications

xQR41 Series Valve

Item	Specifications
Size	66 mm length x 23.7 mm diameter (2.60" x 0.930")
Weight	Valve with standard fluid body Valve only: 141 g (5.0 oz) With Backpack actuator: 196 g (6.9 oz) With mounting block: 166 g (5.9 oz) Valve with PEEK wetted parts Valve only: 115 g (4.1 oz) With Backpack actuator: 170 g (6.0 oz) With mounting block: 140 g (4.9 oz)
Maximum operating temperature	80° C (176° F)
Actuating air pressure required	4.8–6.2 bar (70–90 psi)
Maximum fluid pressure	6.9 bar (100 psi)
Fluid inlet thread	M5
Fluid outlet	Luer taper with retaining nut
Mounting	M4 (BackPack valve actuator or mounting block)
Cycle rate	Exceeds 400 per minute
xQR41 valve material	Air actuator body: 303 stainless steel Fluid body: 303 stainless steel Piston: 303 stainless steel Needle: Nickel- / PTFE-coated 17/4 stainless steel Retaining nut: Hard-coated aluminum



BackPack Valve Actuator

Item	Specifications
Size	26.2W x 26.7H x 18.4D mm (1.03"W x 1.05"H x 0.72"D)
Weight	Valve actuator only: 53.8 g (1.90 oz) Installed on xQR41 valve: 196.10 g (6.90 oz)
Actuating air pressure required	4.8–6.2 bar (70–90 psi)
Electrical input	24 VDC, 4 W
Minimum actuation time	5 ms
Maximum actuation time	Continuous ON
Cycling frequency	60–80 Hz
BackPack material	Housing: anodized aluminum Mounting bolt material: Type 303 stainless steel O-rings: Buna-N

Mounting Block Actuating Air Inlet

Item	Specifications
Size	18.4 mm width x 21.6 mm height x 21.4 mm length (0.72" x 0.85" x 0.84")
Weight	Mounting block only: 25.0 g (0.90 oz) Installed on xQR41 valve: 166.35 g (5.90 oz)
Mounting block material	Housing: anodized aluminum Mounting bolt material: Type 303 stainless steel O-rings: Buna-N

NOTE: Specifications and technical details are subject to engineering changes without prior notification.



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