

# DEUBLIN

## 1109 Series Pop-Off™ Rotor-Mounted Rotating Unions for Coolant Service with Dry Running

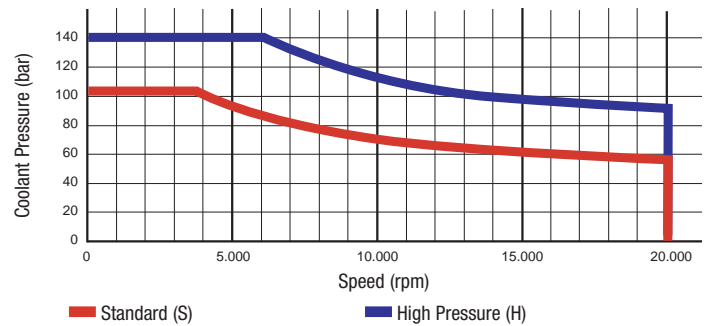
- Single passage for coolant or MQL
- Pop-Off™ technology allows unlimited dry running without media pressure
- Full-flow design has no obstructions to trap swarf or debris
- Bearing-supported with threaded rotor for easy installation
- Dual ABEC 7 (ISO class P4) angular contact ball bearings
- Labyrinth system and large vents to protect ball bearings
- Balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- Aluminium housing, endcap anodised resists corrosion

### Operating Data

Media	Water-based Coolant MQL (oil mist) up to 10 bar (145 psi)		
Filtration	ISO 4406 Class 17/15/12, max. 60 micron		
Max. Speed	20.000 min <sup>-1</sup>	20,000 rpm	
Max. Pressure	see chart		
Max. Flow	82 l/min	21.6 gpm	Standard
	24,3 l/min	6.4 gpm	High Pressure
Max. Temperature	71 °C	160 °F	

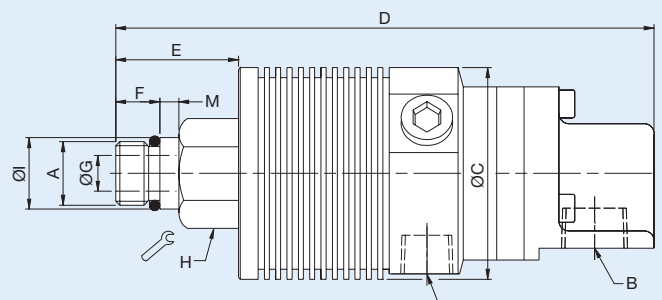
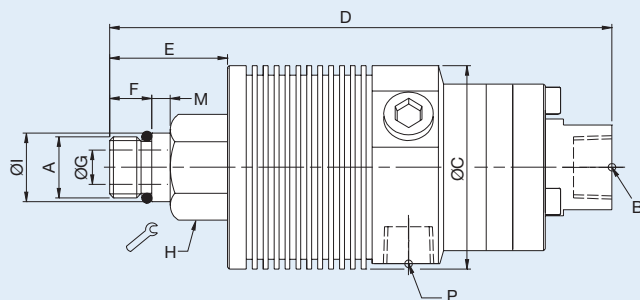


**NO COMPRESSED AIR  
WITH ROTATION**



### Axial Connection

### Radial Connection



	Ordering Number	B Supply Connection	C Overall Diameter	D Overall Length	P Drain Size Ø (3 x 120°)	A Rotor Connection	E Rotor Length	F Thread Length	G Bore Diameter	H Across Flats	I Pilot Diameter	M Pilot Length
S	1109-021-188	G 3/8 Axial	53	129	G 1/4	M16 x 1.5 LH	31	11	9	24	17.993 / 17.988	5
	1109-010-165	3/8 NPT Radial	53	138	1/4 NPT	5/8 -18 UNF LH	34	14	9	15/16"	0.6555" / 0.6553"	5
	1109-020-188	G 3/8 Radial	53	135	G 1/4	M16 x 1.5 LH	31	11	9	24	17.993 / 17.988	5
	1109-040-188	3/8 PT Radial	53	135	1/4 PT	M16 x 1.5 LH	31	11	9	24	17.993 / 17.988	5
H	1109-024-212	G 1/4 Axial	53	129	G 1/4	M16 x 1.5 LH	31	11	9	24	17.993 / 17.988	5
	1109-023-212	G 1/4 Radial	53	135	G 1/4	M16 x 1.5 LH	31	11	9	24	17.993 / 17.988	5

# DEUBLIN

## 1109 Series Pop-Off™ Bore-Mounted Rotating Unions for Coolant Service with Dry Running

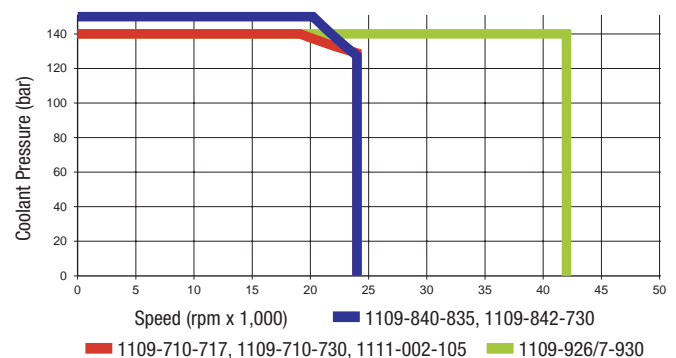
- Single passage for coolant or MQL
- Pop-Off™ technology allows unlimited dry running without media pressure
- Accepts up to 19 mm of axial drawbar movement
- Full-flow design has no obstructions to trap swarf or debris
- Bore-mounted design for easy installation
- Matched, ISO class P4 hybrid ball bearings for smooth operation at high speeds
- Labyrinth system and large vents to protect ball bearings
- Balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- Anodised aluminium and stainless steel parts resist corrosion

### Operating Data

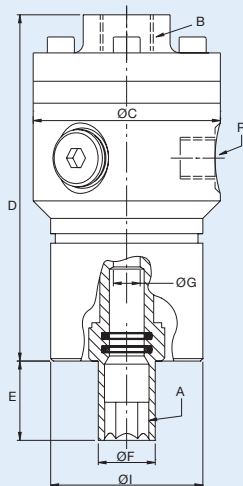
Media	Water-based Coolant MQL (oil mist) up to 10 bar (145 psi)	
Filtration	ISO 4406 Class 17/15/12, max. 60 micron	
Max. Speed	see graph/table	
Max. Pressure	140 bar	2,031 psi
Max. Flow		
1109-710-717	82 l/min	21.6 gpm
1109-92x-930	24,3 l/min	6.4 gpm
1109-8x0-835	24,3 l/min	6.4 gpm
Max. Temperature	71 °C	160 °F



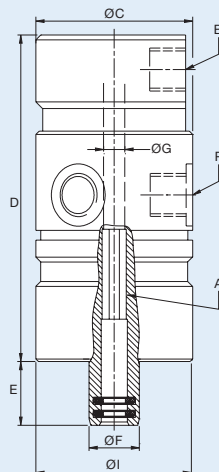
**NO COMPRESSED AIR  
WITH ROTATION**



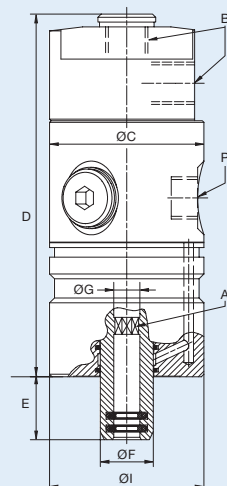
### Axial Connection (1109-710-717 shown)



### Radial Connection



### (Example 1109-840-835)



	Ordering Number	B Supply Connection	C Overall Diameter	D Housing Length	P Vent Size Ø (3 x 120°)	A Rotor Connection	E Rotor Length	F Rotor Overall Diameter	G Bore Diameter	I Pilot Diameter	Maximum Speed (rpm)	Max. Pressure (bar)
	1111-002-105*	G ¼ Radial	48	88.5	4 x G ½	Octagon 7.4 D10	19.5	15.4	8.1 F9	48 h7	24,000	140
	1109-710-730	G ¾ Radial	59	109	G ¼	Octagon 9.25 D10	19.5	20	10 F9	48 g6	24,000	140
	1109-710-717	G ¾ Axial	59	109	G ¼	Hexagon 12 D10	25.0	18.0	11 H7	48 g6	24,000	140
	1109-840-835	G ¼ Axial & Radial	48	112	G ¼	Octagon 7.4 D10	19.5	15.9	8.1 F9	48 g6	24,000	150
	1109-842-730	G ¾ Axial & Radial	48	116	G ¼	Octagon 9.25 D10	19.5	16	10 F9	48 g6	24,000	150
	1109-926-930	G ¼ Radial	48	93	G ¼	Octagon 7.4 D10	19.5	15.4	8.1 F9	48 h7	42,000	140
	1109-927-930	G ¼ Axial	48	93	G ¼	Octagon 7.4 D10	19.5	15.4	8.1 F9	48 h7	42,000	140

\* Ultra-short (0.1 mm) pop-off stroke restricts drainage of residual coolant during tool change.