

178 Series Valves



800.909.4988
info@rankinusa.com

RANKIN 
COMPONENTS THAT AUTOMATE

DESCRIPTION

Solenoid valve 2 way normally closed with assisted-lift diaphragm in stainless steel AISI 316

CONSTRUCTION

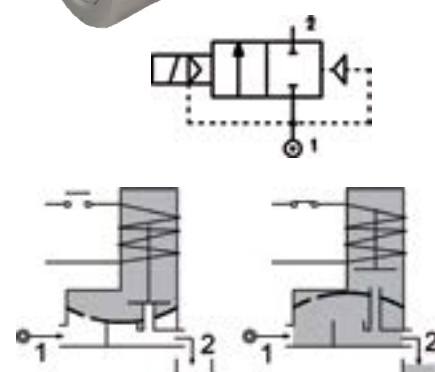
Body and cover	AISI 316
Armature tube	AISI 316
Plunger and core	AISI 430FR
Springs	AISI 302
Shading ring	Silver
Seal material	FPM
	NBR (on request)



FEATURES

Maximum fluid viscosity 25cSt (mm²/s)
 Ambient temperature: from +14°F to +176°F according to the coil
 Preferred mounting position with vertical coil above



OPTIONS: ATEX Ex d coils
 Degreased for use with oxygen



4

CODE	Port Size	Orifice mm		Flow Factor Cv	Operating Pressure Differential (M.O.P.D.) ③					Nominal power	Coil		Seal	Temp. range
					Min	Max		Series	Width					
						AC	DC							
① ②	NPT	(in)	(mm)	(gpm)	(psi)	(psi)	(bar)	(psi)	(bar)			①	(°F)	
E178CNV15///...	3/8"	0.59	15	2.77	0	203	14	87	6	10W	2	30	FPM=V	+14 +284
						-	-	203	14	27W	5	36		
E178DNV16///...	1/2"	0.63	16	3.47	0	203	14	87	6	10W	2	30		
						-	-	203	14	27W	5	36		
E178ENV20///...	3/4"	0.79	20	4.16	0	203	14	87	6	10W	2	30		
						-	-	203	14	27W	5	36		
E178FNV25///...	1"	1	25	9.71	0	203	14	43.5	3	10W	2	30		
						-	-	87	8	14W	5	36		
						-	-	203	14	27W	5	36		
E178GNV35///...	1"1/4	1.38	35	20.8	0	116	8	-	-	10W	2	30		
						203	14	29	2	14W	5	36		
						-	-	101	7	27W	5	36		
E178HNV40///...	1"1/2	1.57	40	22.2	0	116	8	-	-	10W	2	30		
						203	14	29	2	14W	5	36		
						-	-	101	7	27W	5	36		

- ① Seal
- ② Coil
- ③ Safe Working Pressure: 232 psi. Is the line or system pressure to which the valve may be subjected without being damaged. The maximum allowable pressure PS for steam is 36 psi.

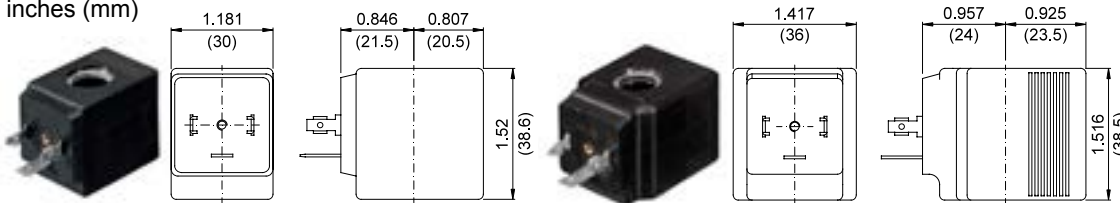
COILS ②	Alternating Current 50/60Hz (60Hz for UL coils) (V)							Direct Current (V)		Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24		
Series 2  Width 30-10W	-	U25B	-	U25D	U25E	U25F	-	U250	U251	DIN 43650A	PG9 code 10349000 or PG11 code 10349001
Series 5  Width 36-14W	-	U55B	-	U55D	-	U55F	-	U550	U551		
Series 5 Width 36-27W	52A	52B	52C	52D	52E	52F	52G	520	521		

DESCRIPTION
 Class H Insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector

OPTIONS
 Cable attached
 Special coil voltage
 Special coil powers

OVERALL DIMENSIONS

inches (mm)



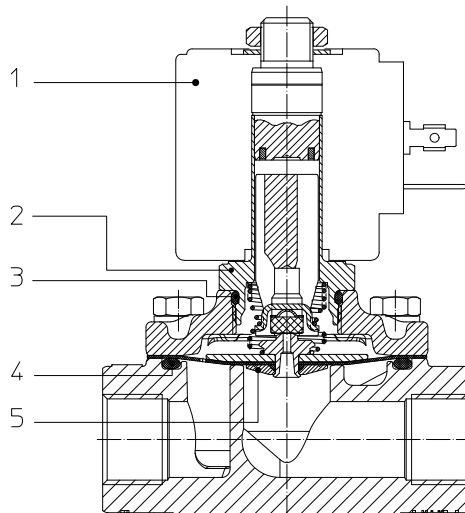
Series 2 Weight 0.26lb (0.12Kg)

Series 5 Weight 0.44lb (0.20Kg)

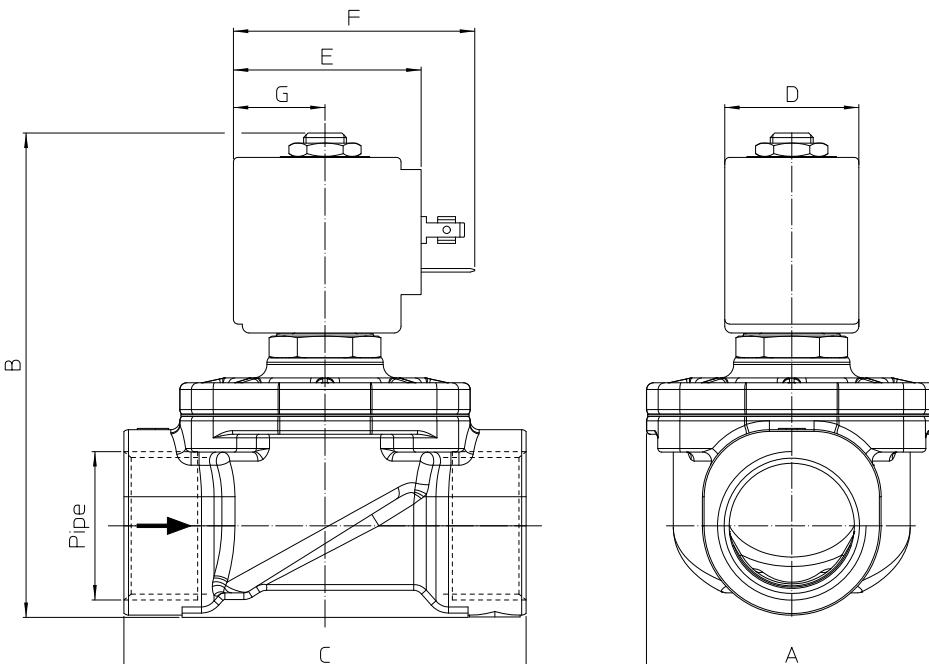
(for coil details see section 6)

SPARE PARTS LIST

1. Coil
2. Armature tube
3. Armature tube OR
4. Body OR
5. Diaphragm assembly+plunger



OVERALL DIMENSION



PIPE NPT	A		B		C	
	in	mm	in	mm	in	mm
3/8"	2	52	3.6	92	2.7	68
1/2"	2	52	3.6	92	2.7	68
3/4"	2.3	58	4	100	3	75
1"	2.6	65	4.3	109	3.5	90
1 1/4"	3.7	94	5	126	5	128
1 1/2"	3.7	94	5	126	5	128

COIL TYPE	D		E		F		G	
	in	mm	in	mm	in	mm	in	mm
Series 2 30mm	1.2	30	1.65	42	2.1	54	0.8	20.5
Series 5 36mm	1.4	36	1.9	48	2.36	60	0.8	23.5