

# FINE CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product range representing leading technologies & brands:

**Flow:** Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

**Temperature:** Temperature Probes & Thermowells, Temperature transmitters, Temperature Regulators & Temperature Displays

**Level:** Level Transmitters & Switches

**Pressure:** Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

**Precision Pneumatics:** Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

**Valves:** Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

**Services:** Repair, Calibration, Panel Build, System Design & Commissioning

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**FAIRCHILD**



**bürkert**



**SIEMENS**



**alcon**  
SOLENOID VALVES

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**MIDLAND-ACS**  
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**Honeywell**



 **Bourdon**  
Baumer Group



**SOLDO**  
CONTROLS

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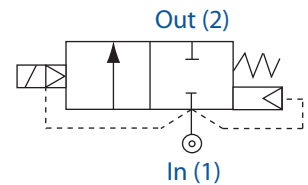
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**ACD Series**  
**2/2 Normally Closed**



**Features & Benefits**

- Robust Valve Design
- Diaphragm Operation
- Fully Ported Orifices for high flow
- Choice of Valve Body Material and Seals
- Suitable for vacuum applications
- Response time up to 1" 15-60ms
- Response time up to 2" 60-120ms



**Features**

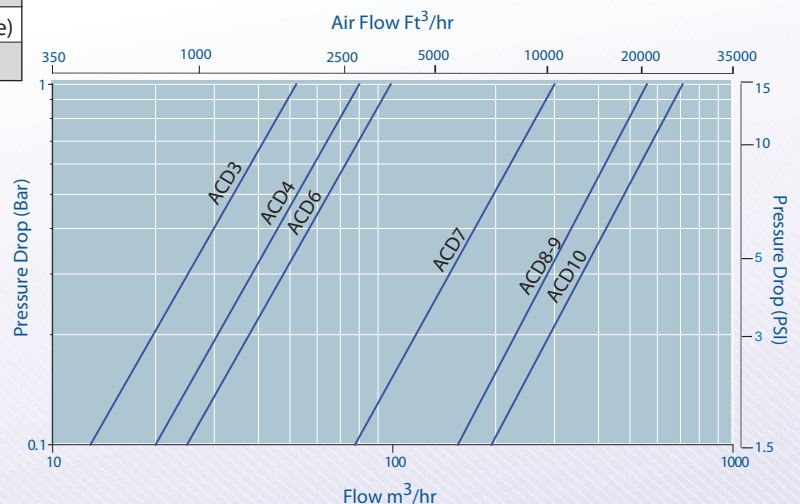
**Electrical Characteristics**

Coil Voltage DC (=):	12v, 24v, 110v
Coil Voltage AC 50Hz (~):	24v, 110v, 120v, 230v
Coil Voltage AC 60Hz (~):	24v, 110v, 120v, 220v
Voltage tolerance:	+10% or -10%
Duty Cycle:	100% ED
Protection Class (Std):	IP65 (BS EN 60529) (plug supplied as standard)
Electrical Connection (Std):	PG9 Din Connector DIN 43650/ISO 4400 (EN 175301-803) Form 'A'
Coil Insulation:	Class H (BS EN 60085) 180°C (E5 type)
Power Rating:	14.5 watts, 19VA

Pipe Size	Qn	OPD (Bar)		P.Max Bar	Orifice mm	Cat No.
		AC Voltages	DC Voltages			
3/8"	850	0 - 14	0 - 10.3	50	16.00	ACD3
1/2"	1466	0 - 14	0 - 10.3	50	16.00	ACD4
3/4"	1666	0 - 14	0 - 10.3	50	16.00	ACD6
1"	4834	0 - 14	0 - 10.3	50	20.00	ACD7
1 1/4"	9168	0 - 4	-	50	40.00	ACD8
1 1/2"	9168	0 - 4	-	50	40.00	ACD9
2"	11669	0 - 4	-	50	40.00	ACD10
1 1/4"	9168	0.3 - 10	0.3 - 10	50	40.00	ACD8T
1 1/2"	9168	0.3 - 10	0.3 - 10	50	40.00	ACD9T
2"	11669	0.3 - 10	0.3 - 10	50	40.00	ACD10T

Qn = Flow of air in litres/min @ 20°C. Input 6 bar Δp of 1 bar

**Flow Data**



**How to use the Flow Chart**

1. Select the required flow.
2. Note the corresponding orifices/model and pressure drop.
3. Using orifices/model, (refer to the Features panel) for technical information

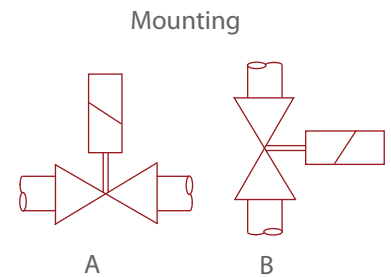
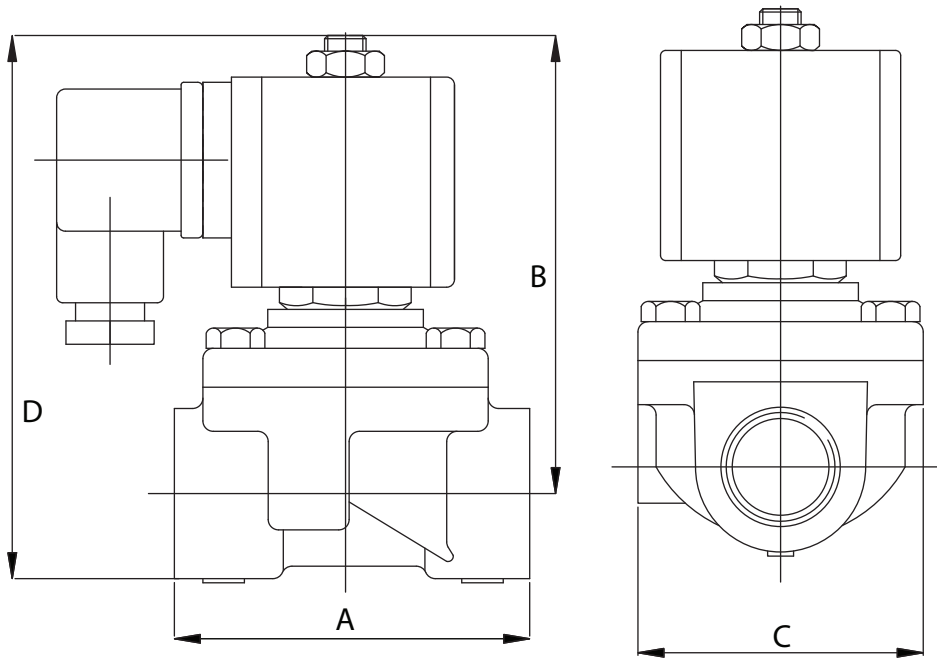
**Specifications**

Function:	Normally Closed, Energise to Open
Ambient Temperature:	-10°C to +50°C
Maximum Viscosity:	115 SSU
3/8 - 1" Body Material (Std):	Brass CZ122
1 1/4" - 2" Body Material (Std):	Bronze
Flange Tube:	Stainless Steel 303
Plunger and Top Stop:	Stainless Steel 430FR
Springs:	Stainless Steel 302
Seal Material (Std):	Nitrile (BunaN)
Connection type (Std):	BS21
Shading Coil:	Copper



**ITT**

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**2/2 Normally Closed**



Solenoid Coil may be rotated to any angle.

**Dimensions**

**Note:**

- Tested in accordance with BS EN 12266-1
- PED Compliant
- Stainless steel dimensions vary from table - consult factory

Size	A	B	C	D	Weight (Kg)
3/8" - 3/4"	69.5	88	75	104	0.90
1"	85	90	75	112	1.20
1 1/4" - 2"	137	103	120	152	3.00 - 3.20

Dimensions given in mm

**Options**

Solenoid Enclosure		
Protection Class	Electrical Entry	Ambient
EExd T6 (IP67)	M20 X 1.5 Female	-50°C to +40°C
EExd T4 (IP67)	M20 X 1.5 Female	-50°C to +70°C
Exm T5 (IP65)	M16 X 1.5 Male FLYING LEAD	-20°C to +40°C

See solenoid enclosures for specific details

Body Material
Stainless Steel 316

Seal Material	Media Temperature Range
EPDM (WRAS approved up to 1")	-50°C to +120°C
Viton	-20°C to +150°C

See corrosion reference guide and sealing solutions for material compatibility

- ANSI and PN flange connections available
- Mounting bracket option available
- Stainless steel valves above 1" refer to ACDLSS

- LED power indicator option
- Slow close option