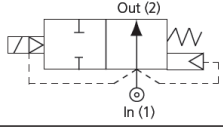


ACDN Series – 2/2 Normally Open

Specifications	
Function	Normally open, energise to close 
Maximum Viscosity	115 SSU
3/8" - 1" Body Material (Std)	Brass CZ122
1 1/4" - 2" Body Material (Std)	Bronze DIN1705
Flange Tube	Stainless Steel 303
Plunger and Top Stop	Stainless Steel 430FR
Springs	Stainless Steel 302
Seal Material (Std)	NBR
Connection Type (Std)	BS21
Shading Ring	Copper (std), Silver (stainless steel option)
Electrical Characteristics	
Coil Voltage DC (=)	12 V, 24 V, 110 V
Coil Voltage AC 50 Hz (-)	24 V, 110 V, 120 V, 230 V
Coil Voltage AC 60 Hz (-)	24 V, 110 V, 120 V, 220 V
Voltage Tolerance	+10% or -10%
Duty Cycle	100% ED
Protection Class	IP65 (BS EN 60529) (plug supplied as standard)
Electrical Connection	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, 19 VA

Features and Benefits

- Robust Valve Design
- Diaphragm Operation
- Fully Ported Orifices for high Kv
- Choice of valve body material and seals
- Sizes 3/8" - 3/4" WRAS approved when used with EPDM seals
- Response time 1" 15-60 ms
- Response time 2" 60-120 ms



WRAS
Water Regulations Advisory Scheme

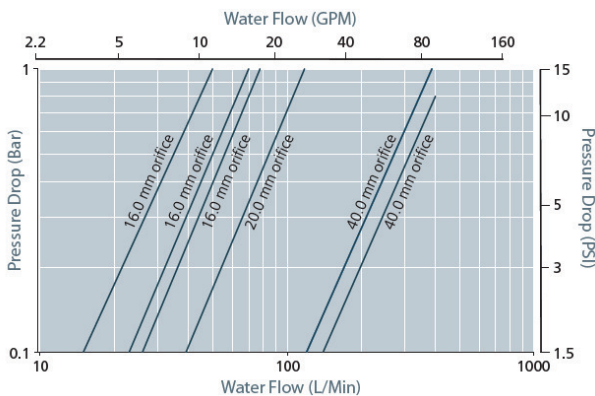
Pipe Size	Cv (gpm)	Kv (m³/h)	OPD (Bar)		P. Max Bar	Orifice (mm)	Weight (kg)
			AC Voltages	DC Voltages			
3/8"	3.5	3.0	0-10	0-10	50	16.00	0.9
1/2"	4.9	4.2	0-10	0-10		16.00	0.9
3/4"	5.4	4.7	0-10	0-10		16.00	0.9
1"	8.2	7.0	0-10	0-10		20.00	1.2
1 1/4"	26.7	23	0.3-10	0.3-10		40.00	3.0
1 1/2"	26.7	23	0.3-10	0.3-10		40.00	3.0
2"	30.2	26	0.3-10	0.3-10		40.00	3.0

Options Available

Exd & Exm Solenoid Enclosure	
Protection Class	
EExd T6 (IP67)	See separate datasheet
EExd T4 (IP67)	
Exm T5 (IP65)	

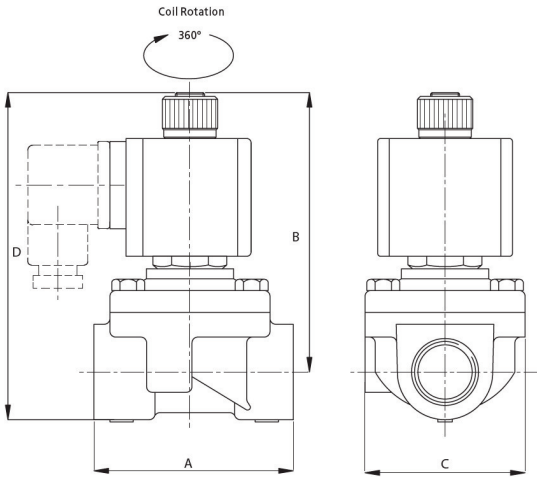
How to use the flow chart

1. Select the required flow.
2. Note the corresponding pressure drop.
3. Based on where the two points intersect select the most appropriate model.

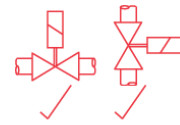


Seal Material ¹ and Media Temp. Range	Ambient Temperature Range °C	
	Min	Max
NBR (-10 °C to +80 °C)	-10	50
EPDM (-50 °C to +120 °C)	-10	50
FKM (-20 °C to +150 °C)	-10	50

Main Valve Body Options
Stainless Steel 316 (available up to and including 1")
NPT threads
Flanged Option (PN16 Std) for alternative options consult Rotork Midland
Oxygen cleaning (consult Rotork Midland for product code)



Preferred Valve Mounting Options



Dimensions

Pipe Size	A	B	C	D
3/8" - 3/4"	69.5	80	75	97
1"	85	80	75	126
1 1/4" - 2"	137	103	120	136

Dimensions given in mm

Solenoid enclosures



E5 Type enclosure protection class IP65

- External material: Glass reinforced nylon
- Electrical connection: DIN Plug to ISO 4400
- Winding insulation: Class H
- Enclosure: Conforms to IP65 when correct plug gasket is fitted as supplied

Coding chart

Main Valve Assembly

Model	Valve Body Conn. Size	Connection Type	Operation
27 ACDN (1 1/4" and above)	C 3/8"	1 BS21	1 AUTO
56 ACDN (3/8"-1")	D 1/2"	2 BSP G (1 1/4" and above)	1
	E 3/4"		
	F 1"	3 NPT	
	G 1 1/4"	4 FLANGED (PN16 STD)	
	H 1 1/2"		
	J 2"		

Body Material	Seals	Style
1 Brass (standard on valves up to and including 1")	A NBR	1 Standard
	B EPDM	
	C FKM	
2 Bronze (standard on valves above 1")		
5 316 Stainless Steel (option available up to and inc 1")		

Coil options

Enclosure	Voltage / Frequency	Electrical Connection	Label
1 Weather proof IP65	A1 230 V / 50 Hz	1 DIN plug 9 mm	48 N/O Module
	A2 110 V / 50 Hz & 120 V / 60 Hz		
	A3 24 V / 50 Hz		
	A7 220 V / 50 Hz		
	B2 24 VDC		
	B3 12 VDC		
B5 110 VDC			

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Product coding example:

27G21Z2A1-1A1148 - ACDN Series
N/O 1 1/4" BSPG, auto operation, bronze body, NBR seals, 230 V / 50 Hz DIN Plug 9 mm.