# 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.

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**Temperature:** Temperature Probes & Thermowells, Temperature ransmitters, 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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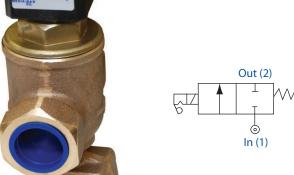




# FACHL Series 2/2 Normally Closed (Manual Reset)

# Features & Benefits

- Heavy Duty Valve Design
- For use with Fire Protection Systems
- Manual Lever Reset Operation
- No voltage Release Safety Feature
- AC version fitted with DC Internal Rectifier
- Designed for Gas, Oil and Liquids
- Suitable for 1st, 2nd and 3rd Gas Families





### **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)<br>(plug supplied as standard)                |
| Electrical Connection (Std): | PG9 Din Connector DIN 43650/ISO<br>4400 (EN 175301-803) Form 'A' |
| Coil Insulation:             | Class H (BS EN 60085) 180°C<br>(E5/550 Type)                     |
| Power:                       | 14.5 Watts, 22 Watts, 19VA                                       |



| Function:              | Normally Close, Energise and operate lever to open |
|------------------------|--|
| Ambient Temperature:   | -10°C to +50°C                                     |
| Maximum Viscosity:     | 115 SSU  |
| Body Material (Std):   | Brass CZ122  |
| Body Material ¾" - 3": | Bronze DIN1705                                     |
| Body Material 3"+:     | Cast Iron Coated                                   |
| 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   |

Note: Consult factory for flow figures for valves above 21/2"

### 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



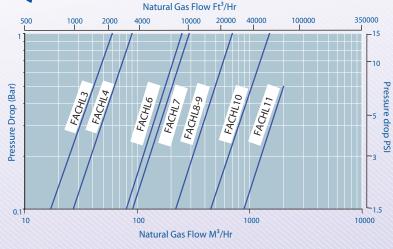
### Features

|           | Orifice |     |           | P.Max | Power | Weight |          |
|-----------|---------|-----|-----------|-------|-------|--------|----------|
| Pipe Size | mm      | Kv  | OPD (BAR) | (Bar) | Watts | Kg     | Cat No.  |
| 3/8"      | 16      | 2   | 0 - 2.0   | 16    | 14.5  | 1.40   | FACHL3   |
| 1/2"      | 16      | 3   | 0 - 2.0   | 16    | 14.5  | 1.40   | FACHL4   |
| 3/4"      | 19      | 8   | 0 - 2.0   | 16    | 14.5  | 1.90   | FACHL6   |
| 1"        | 22      | 9.5 | 0 - 2.0   | 16    | 14.5  | 1.90   | FACHL7   |
| 11⁄4"     | 38      | 23  | 0 - 0.35  | 16    | 14.5  | 3.10   | FACHL8   |
| 1½"       | 38      | 23  | 0 - 0.35  | 16    | 14.5  | 3.10   | FACHL9   |
| 2"        | 51      | 47  | 0 - 0.35  | 16    | 14.5  | 3.70   | FACHL10  |
| 21/2"     | 76      | 64  | 0 - 0.2   | 16    | 14.5  | 7.80   | FACHL11  |
| 3"        | 76      | 77  | 0 - 0.2   | 16    | 14.5  | 7.80   | FACHL12  |
| 4"        | 102     | 167 | 0 - 0.8   | 16    | 22    | 40.50  | *FACHL13 |
| 6"        | 152     | 331 | 0 - 0.3   | 16    | 22    | 70.50  | *FACHL15 |
| 8"        | 200     | 496 | 0 - 0.2   | 16    | 22    | 150.00 | *FACHL17 |
| 10"       | 250     | 918 | 0 - 0.2   | 16    | 22    | 205.00 | *FACHL19 |

\* These valve are all flanged connections as standard PN10/16 Kv = Flow rate measured with differential pressure at 2.5mbar



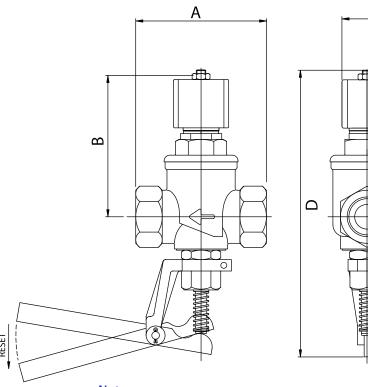
### **Flow Data**



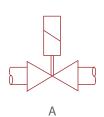




### FACHL Series 2/2 Normally Closed (Manual Reset)



Mounting



Solenoid cover and reset assembly may be rotated to any angle.



| Size          | Α   | В   | С           | D   |
|---------------|-----|-----|-------------|-----|
| 3/8" - 1/2"   | 70  | 100 | 75 inc plug | 184 |
| 3/4" - 1"     | 44  | 70  | 75 inc plug | 196 |
| 11/4" - 11/2" | 63  | 76  | 75 inc plug | 221 |
| 2"            | 63  | 76  | 75 inc plug | 233 |
| 2" - 21/2"    | 260 | 137 | 75 inc plug | 273 |
| 3"            | 197 | 137 | 75 inc plug | 273 |
| 4"            | 292 | 285 | 190         | 577 |
| 6"            | 356 | 330 | 260         | 686 |
| 8"            | 495 | 355 | 310         | 716 |
| 10"           | 623 | 380 | 450         | 850 |

Dimensions given in mm

### Note:

- · PED Compliant
- · On AC supply where media is above 80°C a seperate rectifier is to be used. If the inlet pressure oon the seat area exceeds 18kg the inlet pressure must be rectified to open the valve

# Options

| Solenoid Enclosure                         |                               |                |  |
|--|-------------------------------|----------------|--|
| Protection Class                           | Electrical Entry              | Ambient        |  |
| EExd T6 (IP67)<br>up to 1"                 | M20 X 1.5 Female              | -50°C to +40°C |  |
| EExd T4 (IP67)<br>up to 1"                 | M20 X 1.5 Female              | -50°C to +70°C |  |
| Exm T5 (IP65)<br>up to 1" (24 VDC<br>Only) | M16 X 1.5 Male<br>FLYING LEAD | -20°C to +40°C |  |

See solenoid enclosures for specific details

LED power indicator option

| Body Material       |   |
|---------------------|---|
| Stainless Steel 316 | 5 |

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| Seal Material | Media Temperature Range |  |
|---------------|-------------------------|--|
| EPDM          | -50°C to +120°C         |  |
| Viton         | -20°C to +150°C         |  |
| PTFE          | -200°C to +180°C        |  |

See corrosion reference guide and sealing solutions for material compatibility

