



**METCRAFT**

## Product Data Sheet

### Solenoid Valve

#### About the product

This Brass Solenoid Valve is a direct acting valve, meaning that no pressure needs to be applied to operate, for a range of fluids including fuels, oils and water. As a normally closed solenoid valve, until the valve is activated the fluid flow is shut off. When the electrical current that runs through the coil inside the valve is energised, the valve opens and allows the flow of liquid through the pipework.

This brass solenoid valve is therefore designed for applications where fluid only needs to be released on occasions, such as to feed a generator with diesel from the back up storage tank. It could also be wired into a pump ensuring that fuel only enters the pipework from the tank when the pump is turned on.



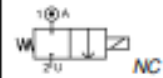
#### Features of the solenoid valve:

- Direct acting normally closed solenoid valve
- Screwed BSP Parallel FXF
- NBR diaphragm suitable for fuels, oils and water
- Max. Temperature: 80°C
- Available in sizes ½" to 1"
- Available in 230v AC or 24v DC
- AC ½" Working Pressure: 10 bar (air), 10 bar (water), 7 bar (light oil)
- AC ¾" to 1" Working Pressure: 10 bar (air), 10 bar (water), 7 bar (light oil)
- DC ½" Working Pressure: 6 bar (air), 6 bar (water), 4 bar (light oil)
- DC ¾" to 1" Working Pressure: 6 bar (air), 6 bar (water), 4 bar (light oil)



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Media: air – water – gas – light oil – vacuum  
 Pressure range: 0 to 16 bar max  
 Media temperature: 80 °C max  
 Ambient temperature: -10 °C to +50 °C max  
 Media viscosity: 40 centistokes max  
 Mounting: any position  
 Weight (including coil): 175 g, 255g, 475g  
 Opening or Closing time: 20 mSec Max



**2/2 Brass**  
 1/8 – 3/8  
**NORMALLY CLOSED**  
**2 WAY DIRECT ACTING**  
 0 – 25 Bar  
**TYPE PU220AR®**



## PRESSURE

| Port<br>BSP | Orifice<br>(mm) | Flow<br>Kv<br>Ltr/ min | Coil  | Pressure Rating (bar) ΔP |           |           | Seals              | Max<br>Media<br>Temp<br>°C | Part Number                                                                        |  |
|-------------|-----------------|------------------------|-------|--------------------------|-----------|-----------|--------------------|----------------------------|------------------------------------------------------------------------------------|--|
|             |                 |                        |       | Min                      | AC<br>Max | DC<br>Max |                    |                            |                                                                                    |  |
| 1/8         | 1.5             | 1.2                    | 22001 | 0                        | 25        | 16        | NBR<br>EPDM<br>FKM | 80<br>160<br>130           | PU22001A + voltage<br>PU22001AE + voltage<br>PU22001AV + voltage                   |  |
| 1/4         | 2.3             | 2.0                    | 22001 | 0                        | 10        | 6         | NBR<br>EPDM<br>FKM | 80<br>160<br>130           | PU22002A + voltage<br>PU22002AE + voltage<br>PU22002AV + voltage                   |  |
| 3/8         | 8.0             | 19.0                   | 22003 | 0.1                      | 10        | 7         | NBR<br>EPDM<br>FKM | 80<br>160<br>130           | PU22003A + voltage<br>PU22003AE + voltage<br>PU22003AV + voltage                   |  |
| 3/8         | 8.0             | 19.0                   | 22005 | 0.1                      | 16        | 16        | NBR<br>EPDM<br>FKM | 80<br>160<br>130           | PU22003A + voltage + 18w<br>PU22003AE + voltage + 18W<br>PU22003AV + voltage + 18W |  |

## OPTIONS

IP65 Coil & Connector PG9 – (DIN 43650 B 1/8 & 1/4 Ports) (DIN 43650A 3/8 Port)  
 ATEX 22001EX Coil: ATEX EExmIT4 II 2G & 2D IP65 T130°C  
 ATEX 22003EX Coil: ATEX EExmIT4 II 2G & 2D IP65 T130°C  
 NPT thread

## ELECTRICAL DATA

| Voltage (-10% + 15%)<br>Continuous duty 100% |                     | Coil  | Power Consumption |         | Insulation class | Enclosure               | Electrical connections                         |
|----------------------------------------------|---------------------|-------|-------------------|---------|------------------|-------------------------|------------------------------------------------|
|                                              |                     |       | Inrush            | Holding |                  |                         |                                                |
| ~ 24 - 110 - 230 (50 or 60 Hz)               | = 12 - 24 (DC)      | 22001 | 11.6 VA           | 8.5 VA  | F 155°C          | IP 65<br>with connector | 3 spades<br>DIN 43650<br>DIN 40050<br>VDE 0110 |
| 4.5 Watts                                    |                     |       |                   |         |                  |                         |                                                |
| ~ 24 - 48 - 110 - 230 - 380 (50 or 60 Hz)    | = 12 - 24 - 48 (DC) | 22003 | 23VA              | 17VA    | H 180°C          |                         |                                                |
| 15 watts                                     |                     |       |                   |         |                  |                         |                                                |
| ~ 24 - 48 - 110 - 230 - 380 (50 or 60 Hz)    | = 12 - 24 - 48 (DC) | 22005 | 33VA              | 24VA    |                  |                         |                                                |
| 18.5 Watts                                   |                     |       |                   |         |                  |                         |                                                |

## CONSTRUCTION

Body: Brass  
 Tube and internal parts: stainless steel  
 Seals and gaskets: NBR (Optional EPDM or FKM)  
 Moulded Coil: ThermoSet Resin

## REPAIR KIT

| Coil                      | Coil size (22001 or 22003 or 22005) + voltage |
|---------------------------|-----------------------------------------------|
| Complete plunger assembly | Coil size + seal material                     |

Office Address:  
 Metcraft Group LTD  
 Unit 4, Cliffe Court  
 Medway City Business Estate  
 Rochester, Kent  
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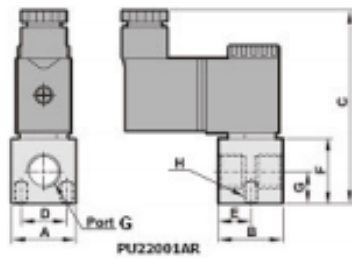
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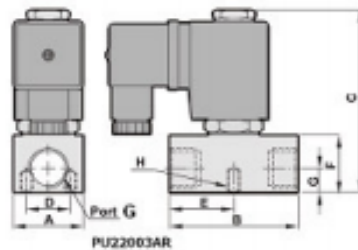
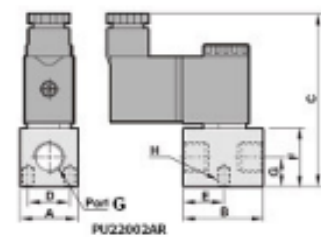


**METCRAFT**

**OVERALL DIMENSIONS**



| Port | 1/8                | 1/4                | 3/8                |
|------|--------------------|--------------------|--------------------|
| A    | 22                 | 25.4               | 30                 |
| B    | 22                 | 35                 | 55                 |
| C    | 72                 | 75                 | 79                 |
| D    | 15                 | 18                 | 18                 |
| E    | 11                 | 17.5               | 27.5               |
| F    | 22                 | 25.4               | 25                 |
| G    | 7.5                | 12.7               | 11                 |
| H    | M4<br>P0.7<br>L6.5 | M5<br>P0.8<br>L7.0 | M5<br>P0.8<br>L7.0 |



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