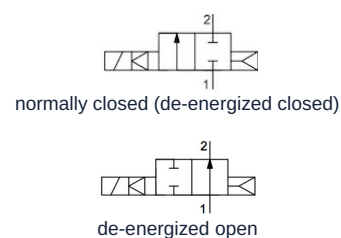
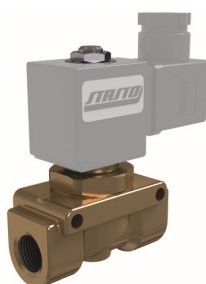


2/2-Way solenoid valve - pilot-operated Series 21PW



| | |
|---------------------|---|
| Design type | 2/2-way solenoid valve with piston seal, pilot-operated, normally closed (de-energized closed) or de-energized open |
| Connection | G3/8" ... G1/2" according to ISO228/1 |
| Materials | Body Brass, Internal parts Stainless steel similar 1.4101, Seat seal PTFE, Piston seal FKM |
| Mounting type | Installation in rigid piping system |
| Mounting position | any |
| Application range | NC: gaseous and liquid media that do not attack the materials used NO: only as an unloading valve for compressors. The valve is installed in a bypass line for this purpose. |
| Viscosity | max. 12 mm ² /s (cst) |
| Switching time | depending on operating pressure and medium |
| Medium temperature | depending on solenoid coil |
| Ambient temperature | see table "Solenoid coils" |

Electrical data:

| | |
|---------------------------------|---|
| Coil type | Type BDA, Connector width 32mm (Standard coil) Type BDV, Connector width 32mm (Coil for humid environment) Type GDH/GDV, Connector width 32mm (Coil for higher pressures, Coil for humid environment) |
| Electrical connection | Appliance socket according to EN175301-803 Form A (see separate data sheet) |
| Voltage type | AC and DC voltage |
| Standard voltage | 230V/50-60Hz, 24V/50-60Hz, 24VDC |
| Special voltages | 12...380V/50Hz or 60Hz, 12...220VDC |
| Permissible voltage fluctuation | AC +10%/-15% DC +10%/-5% |
| Power consumption | see table "Power consumption of the solenoid coils" |
| Duty cycle | 100% duty cycle (continuous operation) |
| Degree of protection | IP65 according to EN 60529 with correctly mounted device connector (protection against dust ingress and water jets) |
| Application note | When ordering, please specify voltage and type of current. We always recommend installing a strainer upstream to prevent malfunctions in the event of contamination of the medium.. These valves can also be used for rough vacuum if the minimum differential pressure of 0.5 bar is present.. |



Type code

| | | | | | | | | | | |
|--------------|---|---|---|---|---|-----|---|-----|--------------|--------------|
| | 21PW | 3 | K | 0 | T | 120 | - | BDA | - | 230V/50-60Hz |
| | G3/8" | 3 | | | | | | | | |
| Connection | G1/2" | 4 | | | | | | | | |
| | normally closed (de-energized closed) | | K | | | | | | | |
| Function | de-energized open | | F | | | | | | | |
| | | | | | | | | | | |
| Seal | PTFE | | | | T | | | | | |
| Nominal size | 12mm | | | | | 120 | | | | |
| | BDA Standard coil - Approval CE | | | | | | | BDA | | |
| | BDV Coil for humid environment - Approval CE-CSA-UL-VDE | | | | | | | BDV | | |
| | GDV Coil for higher pressures - Coil for humid environment - Approval CE-CSA-UL-VDE | | | | | | | GDV | | |
| Coil | GDH Coil for higher pressures - Coil for humid environment - Approval CE | | | | | | | GDH | | |
| | | | | | | | | | | |
| | 230V/50Hz | | | | | | | | 230V/50-60Hz | |
| | 24V/50-60Hz | | | | | | | | 24V/50-60Hz | |
| | 24VDC | | | | | | | | 24VDC | |
| | 12...110V/50Hz or 60Hz | | | | | | | | | |
| Voltage | 12...220VDC | | | | | | | | | |

Possible applications of the individual sealing materials

| Material | Medium temperature | Application examples |
|-----------|--------------------|---------------------------------------|
| PTFE/FKM* | -10...140°C | Air, Water, neutral gases and liquids |

Solenoid coils

| Type | Degree of protection | Insert | Ambient temperature | Approvals |
|------|----------------------|--|---------------------|---------------|
| BDA | IP65 | Medium temperature up to max. 120°C | -10...+40°C | CE |
| BDV | IP65 | Medium temperature up to max. 180°C, high humidity | -20...+60°C | CE-CSA-UL-VDE |
| GDV | IP65 | Medium temperature up to max. 180°C, high humidity | -20...+60°C | CE-CSA-UL-VDE |
| GDH | IP65 | Medium temperature up to max. 180°C, high humidity | -20...+40°C | CE |

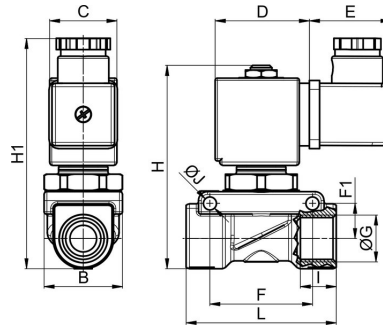


Power consumption of the solenoid coils

| Voltage | Tightening torque (Alternating current) VA | Holding force (Alternating current) VA | Holding force (Direct current) operating temperature W | Type |
|------------------------|---|---|---|------------|
| 220-230V/50-60Hz | 25 | 14,5 | - | BDA08223DS |
| 24V/50-60Hz | 25 | 14,5 | - | BDA08024DS |
| 24VDC | - | - | 8 | BDA08024CS |
| 380V/50-60Hz | 25 | 14,5 | - | BDA08380DS |
| 115V/60Hz | 25 | 14,5 | - | BDA08115BS |
| 110V/50-60Hz | 25 | 14,5 | - | BDA08110DS |
| 48V/50Hz | 25 | 14,5 | - | BDA08048AS |
| 42V/50Hz | 25 | 14,5 | - | BDA08042AS |
| 110VDC | - | - | 8 | BDA08110CS |
| 12VDC | - | - | 8 | BDA08012CS |
| 230V/50Hz 240V/60Hz | 25 | 16 | - | BDV08230AY |
| 24V/50-60Hz | 25 | 17 | - | BDV08024DY |
| 24VDC | - | - | 11 | BDV08024CY |
| 110V/50Hz 120V/60Hz | 25 | 15 | - | BDV08110AY |
| 12VDC | - | - | 14 | GDH14012CS |
| 48VDC | - | - | 14 | GDH14048CS |
| 220VDC | - | - | 14 | GDH14220CS |
| 230V/50Hz 240V/60Hz | 43 | 27 | - | GDV14230AY |
| 24V/50-60Hz | 43 | 26 | - | GDV14024DY |
| 24VDC | - | - | 14 | GDV14024CY |
| 110V/50Hz 120V/60Hz | 43 | 23 | - | GDV14110AY |



Dimensions



| Connection G | Nominal size DN[mm] | Pressure range [bar] | | B | C | D | E | F | F1 | H | H1 | I | J | L | Kv value [m ³ /h Water] | Weight [approx. kg] | Coil | Type |
|--------------|---------------------|----------------------|----------|----|----|----|----|------|----|-----|-----|----|-----|----|------------------------------------|---------------------|------|-------------|
| | | AC | DC | | | | | | | | | | | | | | | |
| G3/8" | 12 | 0,5 - 18 | - | 35 | 30 | 42 | 36 | 45,8 | 16 | 91 | 104 | 12 | 5,7 | 67 | 1,9 | 0,8 | BD. | 21PW3K0T120 |
| G3/8" | 12 | 0,5 - 20 | 0,5 - 15 | 35 | 52 | 55 | 36 | 45,8 | 16 | 91 | 104 | 12 | 5,7 | 67 | 1,9 | 1,1 | GD. | 21PW3K0T120 |
| G1/2" | 12 | 0,5 - 18 | - | 35 | 30 | 42 | 36 | 45,8 | 16 | 91 | 104 | 14 | 5,7 | 67 | 2,3 | 0,8 | BD. | 21PW4K0T120 |
| G1/2" | 12 | 0,5 - 20 | 0,5 - 15 | 35 | 52 | 55 | 36 | 45,8 | 16 | 91 | 104 | 14 | 5,7 | 67 | 2,3 | 1,1 | GD. | 21PW4K0T120 |
| G3/8" | 12 | 0,5 - 18 | 0,5 - 18 | 35 | 30 | 42 | 36 | 45,8 | 16 | 100 | 104 | 12 | 5,7 | 67 | 1,9 | 0,8 | BD. | 21PW3F0T120 |
| G1/2" | 12 | 0,5 - 18 | 0,5 - 18 | 35 | 30 | 42 | 36 | 45,8 | 16 | 100 | 104 | 14 | 5,7 | 67 | 2,3 | 0,8 | BD. | 21PW4F0T120 |

Illustrations non-binding
Design, dimensional and material changes reserved

Armatures / Solenoid valves for liquids and gases / 2/2-way solenoid valves - pilot operated / 2/2-way solenoid valve Series 21PW

