



Model Code

| | | |
|------------|---|---|
| A = | Model No. | |
| | D 30 | Full LCD menu, LED status |
| B = | Approvals / Certificate | |
| | D | General purpose version |
| C = | Air relay | |
| | H | High Flow Spool Valve |
| D = | Connections Threads | |
| | G | ¼" G air, M20 x 1,5 electrical |
| | M | ¼" NPT air, M20 x 1,5 electrical |
| | N | ¼" NPT air, 1/2" NPT electrical |
| E = | Connections Qty and Aux | |
| | 2 | 2 Electrical conduits |
| | T | 2 Electrical conduits, threaded aux. ventilation |
| F = | Housing material / Surface treatment | |
| | U | Aluminum / Powder epoxy, black |
| G = | Spindle / Mounting Options | |
| | 09 | Double D type, adaptor spindle |
| | 21 | NAF Turnex including Mounting bracket |
| | 23 | VDI/VDE 3845 rotary, Mounting kit not included |
| | 30 | Adaptor spindle, select between 01/06/26/30/36 |
| | 39 | IEC 534-6, Flat D type, nut incl. Mounting kit not included |
| H = | Cover / Indicator | |
| | P V A | PMV, Black cover, Arrow indicator |
| | P V D | PMV, Black cover, Dome indicator |
| | F W A | Flowserve, White cover, Arrow indicator |
| | F W D | Flowserve, White cover, Dome indicator |
| I = | Temperature Range | |
| | U | -40°C to 80°C (-40°F to 176°F) |
| J = | Input signal / Protocol | |
| | 4 | 4-20 mA / none |
| | 5 | 4-20 mA / HART |
| K = | Feedback option / Switches | |
| | X | No feedback option |
| | T | 4-20 mA transmitter only |
| | S | Limit switches Mechanical SPDT |
| | N | Namur V3 type sensor, P+F NJ2-V3-N |
| | P | Limit switches Proximity SPDT |
| | 4 | Slot type Namur sensor, P+F SJ2-S1N |
| | 5 | Slot type Namur sensor, P+F SJ2-SN |
| | 6 | Slot type Namur sensor, P+F SJ2-N |
| L = | Options / Add-in electronics | |
| | 0 | Standard diagnostics |
| M = | Accessories | |
| | X | No accessories |
| | M | Gauge block ¼" G (3 gauges included / SST, Brass) |
| | N | Gauge block ¼" NPT (3 gauges included / SST, Brass) |
| N = | Special Options | |
| | N | No special options |
| | S | Exhaust silencers |

* Contact PMV for additional versions

A A A B C D E - F G G H H H - I J K L M N

Technical data

D30 Compact Digital Positioner

| | |
|--------------------------------|--|
| Rotation angle | min 2.5° max 100° |
| Stroke | From 5 mm (0.2") |
| Input signal | 4-20 mA DC |
| Air supply | 1.4-8 bar (20-115 psi) DIN/ISO 8573-1 3.2.3 Free from oil, water and moisture. |
| Air delivery | Up to 760 nl/min @ 6 bar (29.3 scfm @ 87 psi) |
| Air consumption | 8 nl/min @ 6 bar (0.31 scfm @ 87 psi) |
| Air connections | ¼" G or NPT |
| Cable entry | 2x M20x1.5 or ½" NPT |
| Electrical connections | Screw terminals 2.5 mm ² /AWG14 |
| Linearity | <0.4% |
| Repeatability | <0.5% |
| Hysteresis | <0.3% |
| Dead band | 0.1-10% adjustable |
| Display | Graphic, view area 15 x 41 mm (0.6 x 1.6") |
| UI | 5 push buttons |
| CE directives | 93/68EEC, 89/336/EEC, 92 /31/EEC |
| Voltage drop, w/o HART | 8 V |
| Voltage drop, with HART | 9.4 V |
| Vibrations | < 0.25% FS 10-500 Hz 2g max |
| Enclosure | IP66 |
| Material | Die-cast Aluminum |
| Surface treatment | Powder epoxy |
| Temperature range | -40°C to +80°C (-40°F to 176°F) |
| Weight | 1.8 kg (4 lbs) |
| Mounting position | Any |
| Communication protocols | Hart Profibus PA Foundation Fieldbus |

Optional plug-in modules

| Mechanical switches | |
|---------------------|--------------------------------|
| Type | SPDT |
| Size | Sub miniature |
| Rating | 3 A/125 VAC / 2 A/30 VDC |
| Temperature range | -30°C to 80°C (-22°F to 180°F) |

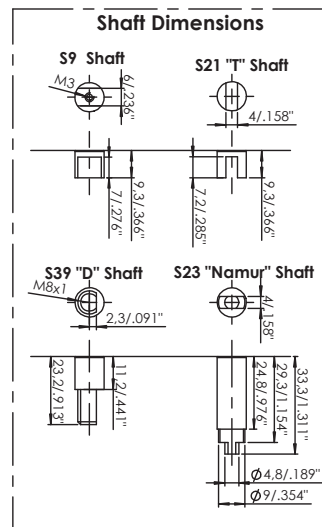
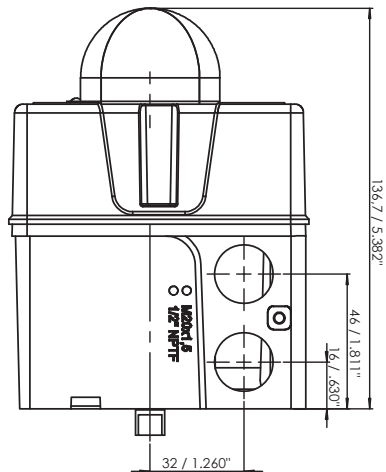
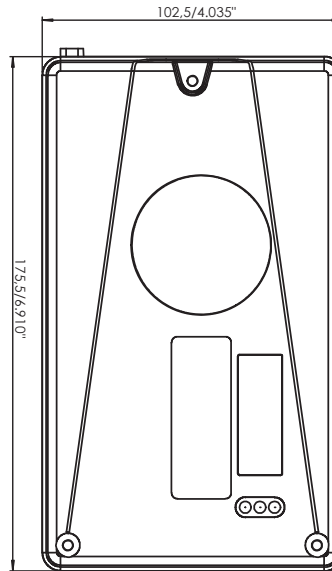
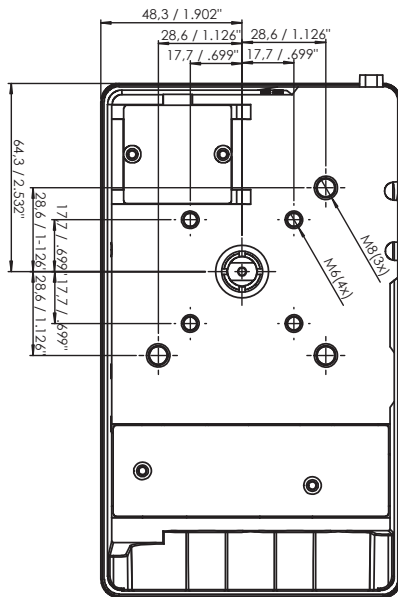
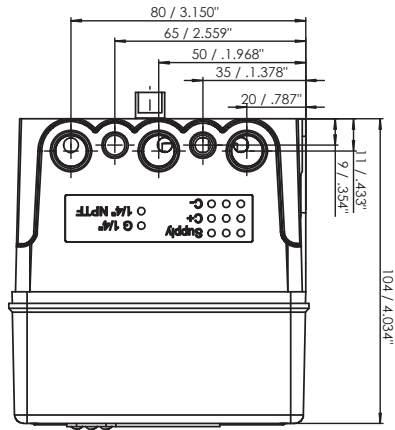
| NAMUR sensors | |
|-------------------|---------------------------------|
| (NJ2-V3-N) | |
| Type | Proximity DIN EN 60947-5-6:2000 |
| Load current | 1 mA ≤ I ≤ 3 mA |
| Voltage range | 8 VDC |
| Hysteresis | 0.2% |
| Temperature range | -25°C to 85°C (-13°F to 185°F) |

| Proximity switches | |
|--------------------|--------------------------------|
| Type | SPDT |
| Rating | 0.4 A @ 24 VDC, Max 10 W |
| Operating time | Max 1.0 ms |
| Max voltage | 200 VDC |
| Contact resistance | 0.2 Ω |
| Temperature range | -30°C to 80°C (-22°F to 180°F) |

| Slot NAMUR switches | |
|---------------------------------|---------------------------------|
| (SJ2-S1N, SJ2-SN, SJ2-N) | |
| Type | Proximity DIN EN 60947-5-6:2000 |
| Load current | 1 mA ≤ I ≤ 3 mA |
| Voltage | 8 VDC |
| Hysteresis | 0.2% |
| Temperature range | -25°C to 85°C (-13°F to 185°F) |

| 4-20 mA transmitter | |
|----------------------|----------------|
| Supply | 11-28 VDC |
| Output | 4-20 mA |
| Resolution | 0.1% |
| Linearity full span | +/-0.5% |
| Output current limit | 30 mA DC |
| Load impedance | 800 Ω @ 24 VDC |

Spindle and Dimension Drawings (mm/inch)





D30 Compact Digital Positioner

Description

The PMV D30 Digital Positioner series offers intelligent and reliable valve control. Its compact modular design with a variety of mounting options makes it the perfect fit for controlling all major types of valve. It is available with 4-20 mA, Hart, Profibus and Fieldbus communication plus a range of optional integrated limit switches and continuous position feedback. Communication via DTM provides even more information from the process and enables convenient remote configuration of the device. A user friendly menu system with a graphics LCD plus LED indicators are available for local operation. Its housing is weatherproof in accordance with IP66 and remote mounting is possible for extreme conditions.

Benefits

- Reliable valve operation by robust and proven design
- Suits almost any control valve
- Very easy to install, configure and operate
- Suits small or large, rotary or linear valves
- Quick calibration and commissioning

Features

- Instant, accurate calibration by pushing two dedicated buttons simultaneously from any menu position
- Sturdy housing, robust large spool valve and proven digital technology ensure trouble free operation for many years, even when plant environments are very demanding
- The D30 suits rotary and linear valves as well as single and double acting actuators
- Combines high precision for small valves with very high air capacity to handle large valves
- ValveSight™ DTM based predictive valve diagnostics provides overview of valve health to help avoid unplanned stoppages and to reduce maintenance costs
- Scheduled or manual Partial Stroke Testing to ensure/validate On/Off applications can open or close valves when required
- A wide range of spindle shafts and mounting kits available
- The spindle shaft is preloaded to eliminate play in the feedback mechanism
- Graphics LCD, three status LEDs and intuitive multi-language menu system

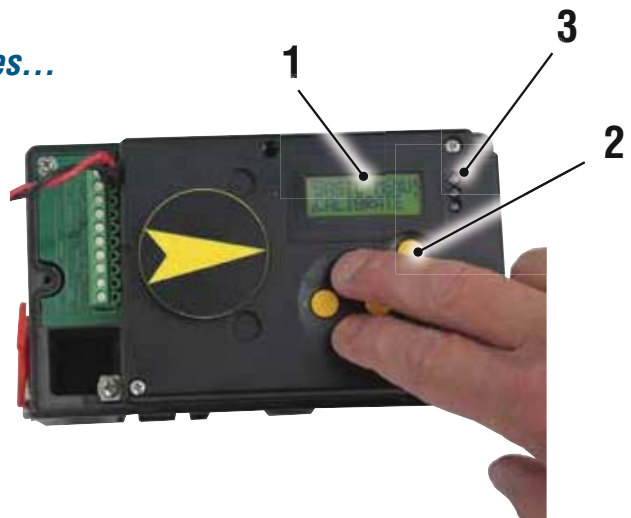
Options

- Plug-in limit switches and 4-20 mA transmitter
- Hart, Profibus PA or Foundation Fieldbus
- Add-on gaugeblock
- Dome indicator
- Plug-in pressure sensors for diagnostics with ValveSight®
- Remote or integrated mounting



The D30 is up and running in minutes...

1. LCD with 5 buttons for simple menu navigation.
2. Push 2 buttons simultaneously to perform instant, accurate calibration.
3. Green, yellow, red LEDs providing instant indication of normal operation, fully open/closed valve cut off or alarm at a glance.



...on any valve



Mounting options include brackets and direct mounting for rotary and linear applications



The D30 Helps Maximize Plant Uptime

The ValveSight™ predictive diagnostics system provides a dashboard for two way communication between the valve and the operator. It taps into the valve and lets plant staff know not only detailed current status of the valve equipment but also provides indications on what is about to happen to help avoid unplanned stoppages of the plant.

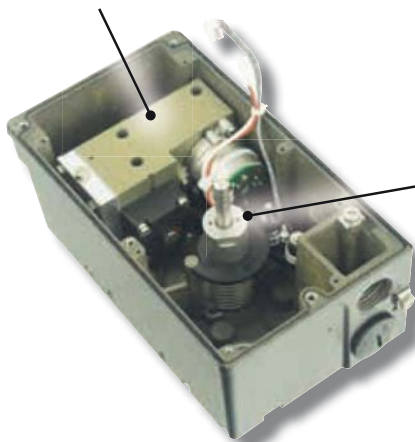
ValveSight provides:

- Online and offline diagnostics of valve, actuator and positioner
- Alarms explained in plain English
- Health bars which assist in predicting repairs as well as plan maintenance to minimize costly process downtime
- Graphs presenting trends of key valve health parameters
- PST (partial stroke) – scheduled automatic tests or manual
- Alarm limits are easily customized

The D30 can be set up and communicate in several ways including:

- Locally at the valve via an intuitive menu system in the D30 graphics display
- Locally by using a Hart handheld device
- Remotely or locally via the ValveSight™ DTM using a PC (shown)

Large robust spool valve for single acting and double acting applications. Very high air capacity combined with unique intelligent control algorithm ensure accurate and responsive control of all valves regardless of size and actuator type.



- To simplify installation, the spindle shaft has a friction clutch which means easier commissioning and no possibility of breaking the feedback mechanism
- Torsional play in the valve position feedback mechanism is eliminated by a preloaded spring





D30 Compact Digital Positioner



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— USA FLOW CONTROL COMPANY —

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