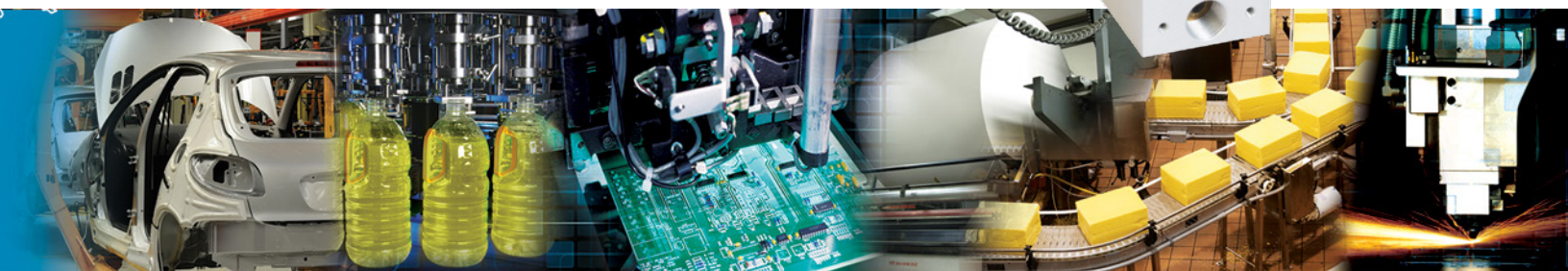




Flowtronic^D | 607 Series

Proportional Technology

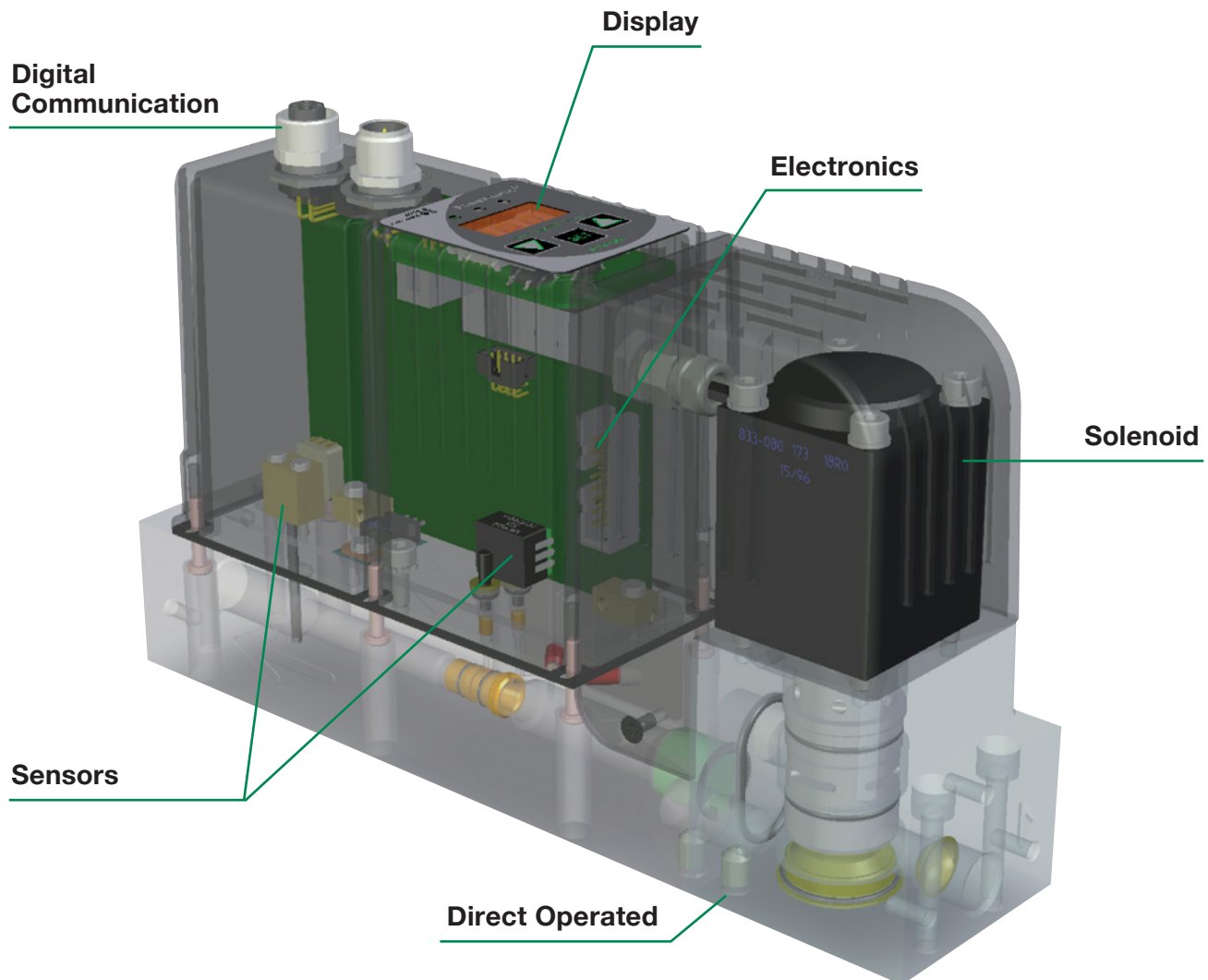


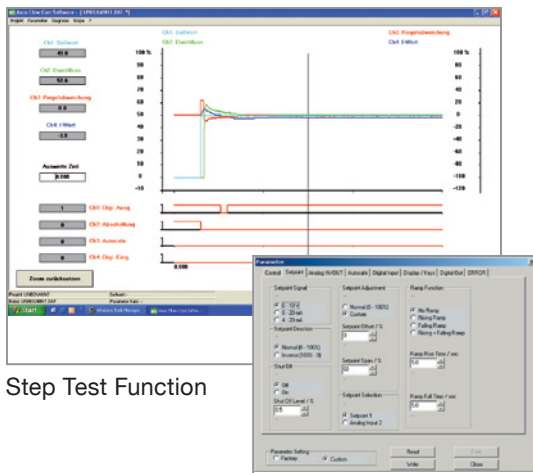
Flowtronic^D

Flowtronic^D is a digitally operated flow controller up to 70 SCFM (2000 NI/min). The Flowtronic^D consists of a fast, direct-operated 2-port proportional valve that operates independently of the inlet pressure (max. 116 psi), and a control unit which contains all of the control electronics and sensors. The Flowtronic^D offers precise flow adjustment and is very responsive to outside disturbances.

Typical applications for the Flowtronic^D include: Paint coating technology, mixing of gases in process control, packaging and food processing industry, surface finishing and materials coating processes, burner control systems, and fuel cell technology.

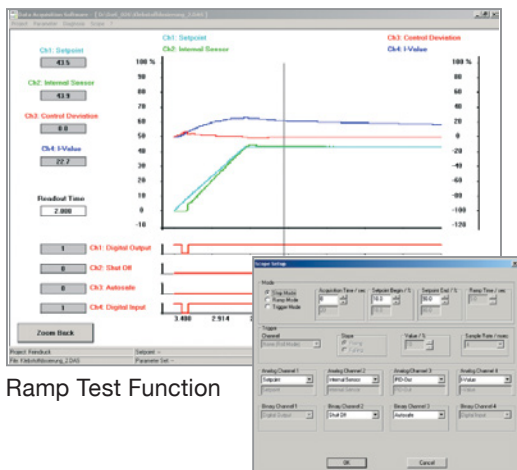
The digital control electronics and a USB interface allow the controller to be adapted to different applications. The ASCO FlowCom PC software provides easy start-up.





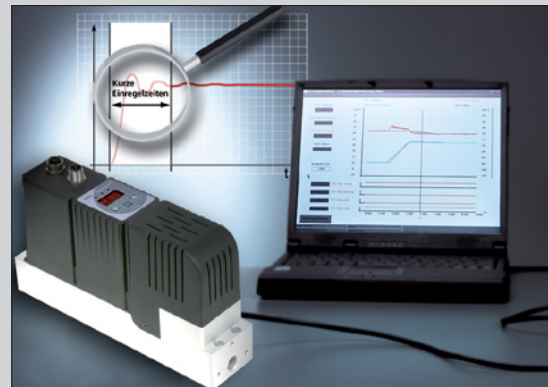
Step Test Function

Parameters Setup



Ramp Test Function

Scope Setup



By connecting the Flowtronic^D to a PC with a USB interface, the Numatics FlowCom software can be used to optimally adjust the valve's control parameters to a specific application. FlowCom software has an oscilloscope function that allows the user to select and visually see various response characteristics as the flow controller operates in an application. Control loop parameters can be adjusted using the software without removing the flow controller from service. This functionality streamlines the application development process. Control parameters can be saved and reloaded at any time.

The ASCO FlowCom software offers the following features:

- Real time display of: command signal, outlet pressure, internal control parameters (e.g. P, I or D), pressure switch signal, etc.
- Parameter setting: command signal, zero offset, span, limitation of output current, ramp function, etc.
- Diagnostics menu for error detection and testing
- Custom adjustment to an application
- Control of Flowtronic^D

Advantages

- Low hysteresis
- Quick response times
- Very high sensitivity
- Standard 50 µm filtration
- Analog feedback output
- Easy change of control parameters
- Digital control
- Integrated display (optionally without)
- PC communication

Flowtronic^D

- The Flowtronic^D consists of a fast, direct-acting 2-port proportional valve, a pressure sensor unit and digital control electronics
- Controls applications that have varying flow
- Controls and maintains constant and even flow despite external disturbances such as fluctuating inlet pressure
- Measures flow precisely with two sensors
- Software and PC connection allows parameters to be adjusted to a specific application
- FlowCom software provides quick and easy start-up
- Diagnostic capability using the integrated LEDs or the FlowCom software



Fluids	Ambient Temperature	Body	Internal Parts	Seals
Air or neutral gas, filtered at 50 µm, condensate-free, lubricated or unlubricated	0 °C to 40 °C (32 °F to 104 °F)	Aluminum	Aluminum, stainless steel and brass	NBR (nitrile)

General Valve Information		
Minimum allowable pressure		5 bar (58 psi)
Maximum allowable pressure (MAP)		8 bar (116 psi)
Control range		0.4 – 70.6 SCFM, (10 – 2000 NI/min) (ANR)
Fluid Temperature		0 °C to 50 °C (32 °F to 122 °F)
Pressure Range		up to 116 psi (8 bar)
Ports		1/4, 3/8, 1/2 NPT or GTap
Construction		Poppet valve
Command signal - analog		0 – 10 V (100 kΩ), 0 – 20 mA, 4 – 20 mA (resistance 250 Ω)
Feedback output - analog		0 – 10 V, 0 – 20 mA, 4 – 20 mA (max. load 500 Ω)
Hysteresis		± 3%
Linearity/pressure measurement		± 3%
Repeatability		± 1.5%
Response time		< 200ms
Calibration conditions	Ambient temperature	22.5 °C ± 2.5 °C (72.5 °F ± 4.5 °F)
	Fluid	Air
Nominal diameter		3mm, 5mm, 6mm
Other features		Auto-tune, error display by LED

Electrical Characteristics						
Nominal Diameter DN (mm)	Voltage *	Max. Power (W)	Max. Current (mA)	Insulation Class	Degree of Protection	Electrical Connection
Up to 1000 NI/min	24 VDC = ± 10%	30	1250	H	IP65	- 5-pin M12 connector - USB connection with 4 pin M12 connector
2000 NI/min	24 VDC = ± 10%	34	1400	H	IP65	- 5-pin M12 connector - USB connection with 4 pin M12 connector

* Max. ripple: 10%

How to Order

8 3 3 - 3 8 0 1 0 1 1 5 0

Version (ports), Body/Display

- 0 = (GTap) without display*
- 1 = (GTap) with display*
- 2 = 1/2 (GTap) without display
- 3 = 1/2 (GTap) with display
- 6 = (NPT) without display*
- 7 = (NPT) with display*
- 8 = 1/2 (NPT) without display
- 9 = 1/2 (NPT) with display

Command Signal

- 0 = 0 – 10 Volt
- 1 = 0 – 20 mA
- 2 = 4 – 20 mA

Feedback

- 1 = Feedback output 00 – 10 Volt
- 2 = Feedback output 00 – 20 mA
- 3 = Feedback output 04 – 20 mA
- 4 = Feedback input 0 – 10 Volt¹⁾
- 5 = Feedback input 0 – 20 mA¹⁾
- 6 = Feedback input 4 – 20 mA¹⁾

Options

A00 = Dual loop control

Flow Regulation Range

- 10 = 0.4 - 3.5 SCFM (10 - 100 NI/min)
(1/4 - Versions 0, 1, 6 or 7 only)
- 20 = 0.4 - 7.1 SCFM (10 - 200 NI/min)
(1/4 - Versions 0, 1, 6 or 7 only)
- 30 = 0.4 - 10.6 SCFM (12 - 300 NI/min)
(1/4 - Versions 0, 1, 6 or 7 only)
- 50 = 0.7 - 17.7 SCFM (20 - 500 NI/min)
(1/4 - Versions 0, 1, 6 or 7 only)
- 60 = 0.8 - 21.2 SCFM (22 - 600 NI/min)
(1/4 - Versions 0, 1, 6 or 7 only)
- 99 = 1.8 - 35.3 SCFM (50 - 1000 NI/min)
(3/8 - Versions 0, 1, 6 or 7 only)
- 20 = 3.5 - 70.6 SCFM (100 - 2000 NI/min)
(1/2 - Versions 2, 3, /8 or 9 only)

Digital I/O

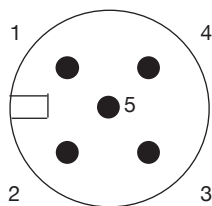
- 1 = Pressure switch output PNP ± 5%

Notes:

* Port size depends on flow range (1/4 or 3/8)

¹⁾ Feedback input is needed for dual loop units.

Connector Pin Out



Pin	Description
1	+24 VDC Supply
2	Command Signal
3	+0 VDC Common (Supply)
	+0 VDC Common (Command Signal)*
4	Analog output (feedback)
5	Digital output (pressure switch)
Body	EMC shield

* A 6-wire cable with separate common for the command signal is used for cable lengths over 2m to minimize the voltage drop for the command signal.

5 Pin 12mm FEMALE Straight Field Attachable Connectors	Model number
PG 9 Cable Gland	TC05F20000000000
5 Pin 12mm FEMALE 90 DEGREE Field Attachable Connectors	
PG 9 Cable Gland	TD05F20000000000
Micro Female 5 Pole Straight 6 Wire 24 AWG, Shielded	
3 Meter	TC0503MMS000671Y
5 Meter	TC0505MMS000671Y
Micro Female 5 Pole 90 Degree 6 Wire 24 AWG Euro Color Code, Shielded	
3 Meter	TD0503MMS000671Y
5 Meter	TD0505MMS000671Y
PC Software & Cable Connector	Model number
Flowtronic [®] software "ASCO-FlowCom-Light" - free download at asco.com	88100895
Flowtronic [®] software "ASCO-FlowCom-Expert" - CD-ROM	Consult Factory
USB cable for connection of Flowtronic [®] to PC	88100897