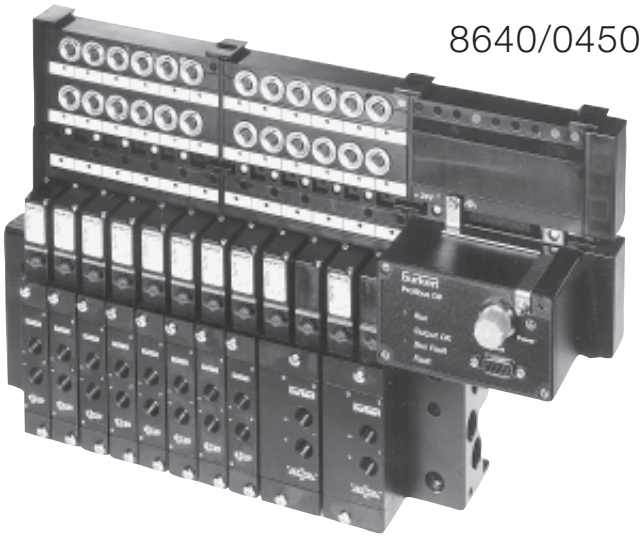
# Centralized Process Actuation Solution for the Processing Industries



8640/0450

## High Flow ALUMINUM Valves

- ✓ **Easy NET with wide range of connections**
- ✓ **Optimized System Solutions due to high level modularity**
- ✓ **Circuit functions H, L and N**
- ✓ **High flow rates**
- ✓ **Pre-tested and supplied easy to connect**

ON/OFF & Continuous Control

8640
0450

The valve module system is suitable for a wide range of complex control applications with its logical and modular construction in respect of the electrical and fluidic interfaces.
The electrical connections can be made either via common connections, multipole or fieldbus interfaces.

**Specification**

| | |
|---|---|
| Valve type | 0450 (pneumatic directional control) |
| Materials | |
| Valve body | Aluminum anodised |
| Valve internals | Aluminum, st.steel, brass |
| Seals | POM/NBR |
| Temperature | |
| In operation | 0 up to +50°C |
| Storage and transport | –20 up to +60 °C |
| Fluids | Filtered compressed air, lubricated or unlubricated |
| Valve port connection | G1/8 |
| Module connection | Inter-locking |
| Valve mounting | Push-in /screwed |
| Valve module mounting | Standard rails & wall mounting configuration according to customer requirement |

**Electrical Operating Data**

| | |
|---|---|
| **Solenoids***) | |
| Nominal voltage | 24 V/DC |
| Permissible voltage tolerance | ±10 % |
| Residual ripple | 5 Vss |

| | |
|---|---|
| **Control Electronics***) | |
| Operating voltage | 24 V/DC |
| Permissible voltage tolerance | ±10 % |
| Residual ripple | 1 Vss |
| Current consumption | Max. 500 mA |
| Electrical Power | Max.12 W |
| Power supply connection | M12 round plug (only AS-i bus also with screw plug terminals) |
| Rating | IP20 (with feedbacks on terminals)<br>IP65 (with feedbacks on plug connectors) |

*) The power supply for the solenoids and the control electronics take place via separately fused circuits.

**Overall current requirements:**
I Total = 500 mA + n (I nominal ) + m (20 mA)
n: No. of valves
m: No. of indicators (max. 20 mA per indicator)
I nominal: Rated current of the solenoid

**Applications:**
- **Water treatment**
- **Food and beverage**
- **Pharmaceutical industry, biotechnology and cosmetics**
- **Chemical industry**
- **Pulp / paper processing equipment**
- **Textile dyeing / drying equipment**
- **Semiconductor industry**



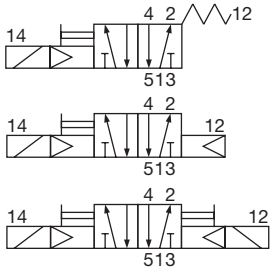



bürkert
Fluid Control Systems

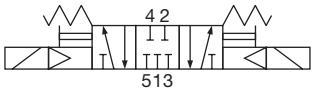
# Centralized Process Actuation Solution for the Processing Industries

## Technical Data

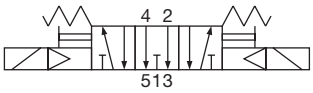
**Function H**
5/2 way valve, servo-assisted, in de-energized position port 2 pressurized and port 4 exhausted. Different returns incl. impulse valve




**Function L**
5/3 way valve, servo-assisted, in middle position all ports locked




**Function N**
5/3 way valve, servo-assisted, in middle position ports 2 and 4 exhausted

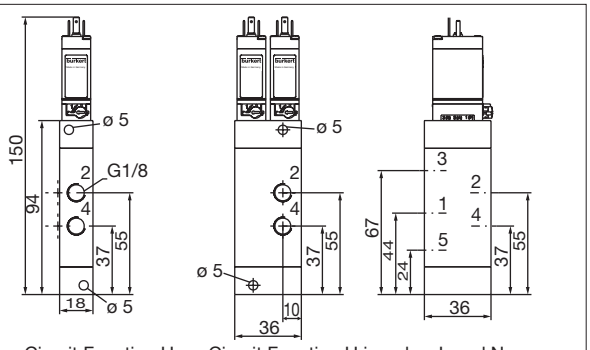



## Valve Characteristics

| Circuit function | Flow rate [l/min] | Pressure range [bar] | Rated current [W] | Reset | Response times opening [ms] | Response times closing [ms] | Item-No. |
|---|---|---|---|---|---|---|---|
| H (5/2) | 750 | 2 – 8 | 1 | air spring | 19 | 25 | 194 274 X |
| H (5/2) | 750 | 2 – 8 | 1 | spring | 17 | 27 | 194 275 Y |
| H (5/2) | 750 | 2 – 8 | 1 | impulse* | 16 | 16 | 194 276 Z |
| H (5/2) | 750 | 2 – 10 | 2 | air spring | 19 | 25 | 194 279 C |
| H (5/2) | 750 | 2 – 10 | 2 | spring | 17 | 27 | 194 280 S |
| H (5/2) | 750 | 2 – 10 | 2 | impulse* | 16 | 16 | 194 281 P |
| L (5/3) | 650 | 2 – 8 | 1 | spring* | 16 | 37 | 194 277 S |
| L (5/3) | 650 | 2 – 10 | 2 | spring* | 16 | 37 | 194 282 Q |
| N (5/3) | 650 | 2 – 8 | 1 | spring* | 16 | 37 | 194 278 B |
| N (5/3) | 650 | 2 – 10 | 2 | spring* | 16 | 37 | 194 283 R |

*) valves have double mounting dimensions (36 mm wide)

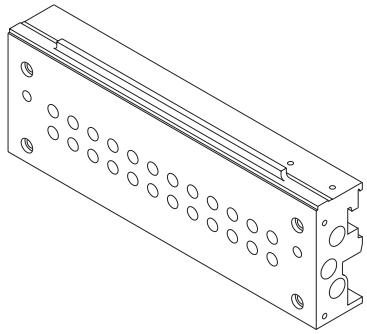
## Dimensions [mm] 0450




Circuit Function H  Circuit Function H impulse, L and N

## Pneumatic Modules 0450

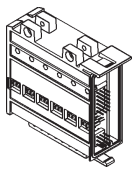
| Number of valves | Item-No. |
|---|---|
| 4 | 194 256 V |
| 6 | 194 264 V |
| 8 | 194 265 W |
| 10 | 194 266 X |
| 12 | 194 267 Y |
| 14 | 194 268 H |
| 16 | 194 269 A |
| 18 | 194 270 F |
| 20 | 194 271 U |
| 22 | 194 272 V |
| 24 | 194 273 W |
| Blind cover* | 194 379 G |



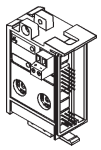
# Centralized Process Actuation Solution for the Processing Industries

## Modules with Integrated Plugs to Valve Connection

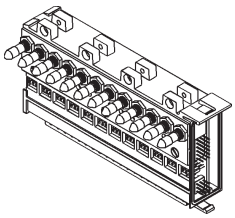
Electrical Basic Module, Standard Version
Max. 2, 5 or 6 valves
Rating IP 65



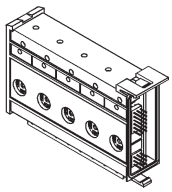
Electrical Basic Module with External Override
Max. 2, 5 or 6 valves
Rating IP 20
Plugable terminals



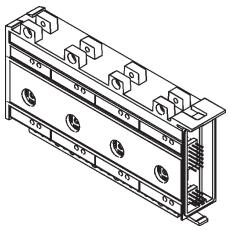
Electrical Basic Module with Manual Override
Max. 2 or 5 valves
Rating IP 20
3-Way lockable switch



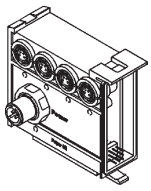
Electrical Basic Module, Common Connection
Max. 2 or 5 valves
Rating IP 20
Screw terminals



Electrical Basic Module for Impulse Valves
Max. 2, 5 or 6 inputs
Rating IP 20

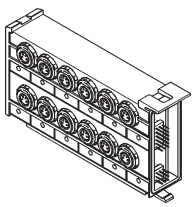


Module with 4 Outputs
24 V/DC
Power consumption
Max. 12 W per output
Electr. connections
M12 round plug (supply)
M8 round plug (outputs)
Rating IP 65

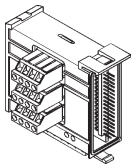


## Modules for Position Feedback

Module with Plug Connection for Feedback/Initiators
Max. 4, 10 or 12 inputs
Rating IP 65
M8 round plug version



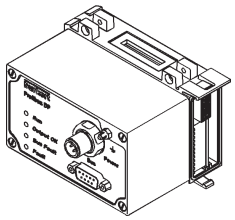
Module with Clamp Connection for Feedback/Initiators
Max. 4, 10 or 12 inputs
Rating IP 20
Plugable terminals



# Centralized Process Actuation Solution for the Processing Industries

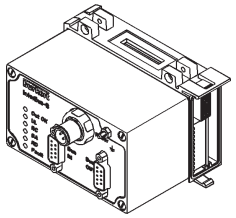
## Fieldbus Modules

### PROFIBUS DP



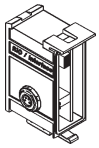
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 9.6; 19.2; 93.75; 187.5; 500 or 1500 kBaud
Electrical conn. M12 (4 pin)
Bus connector D-SUB (9 pin)

### InterBus S



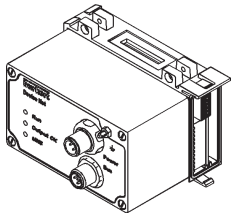
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 500 kBaud
Electrical conn. M12 (4 pin)
Bus connector 2 x D-SUB (9 pin)

### Internal Bus Extension RIO-IF Module



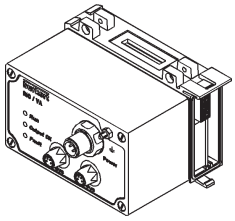
Max. 4 subsequent islands
Rating IP 65
Plug-in coupling
Module for bus extension

### Device Net



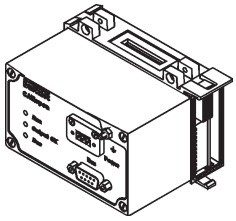
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 125; 250 or 500 kBaud
Electrical conn. M12 (4 pin)
Bus connector MICRO style

### RIO VA Module



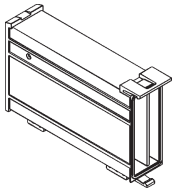
Max. 32 feebacks
Rating IP 65
Plug connector

### Fieldbus CAN Open



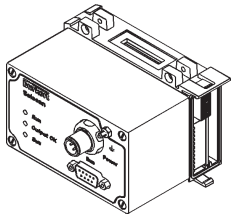
Max. 24 valves
Max. 32 feedbacks
Rating IP 20
Baud rate 20; 125; 250 or 500 kBaud
Electrical conn. with terminals
Bus connector D-SUB (9 pole)

### EME Module



Rating IP 65
Module for connection of feedback signals in combination with fieldbus modules

### Fieldbus SELECAN

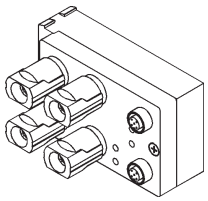


Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 20; 100; 500 or 1000 kBaud
Electrical conn. M12 (4 pin)
Bus connector D-SUB (9 pole)

# Centralized Process Actuation Solution for the Processing Industries

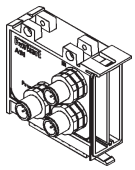


InterBus Loop



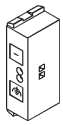
Max. 4 valves
Max. 2 feedbacks and 2 valves
Rating IP 65
Electr. connection
Ease ON PG 13.5
Bus connection
Ease ON PG 11
Round plug M12 for feedback inputs

Fieldbus AS-Interface



Max. 4 valves
Rating IP 65
Electr. conn. M12 (4 pin)
Bus connector M12 (4 pin)

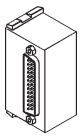
## Common Connection for Single Connection of Valves



Max. 24 valves
Rating IP 20
Screw terminals

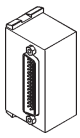
## Multipole Modules for Single Connection of Valves and Feedbacks

Multipole Module Valve Outputs



Max. 24 valves
Rating IP 65
Electr. connection
D-SUB (25 pins)

Multipole Module Feedback Inputs

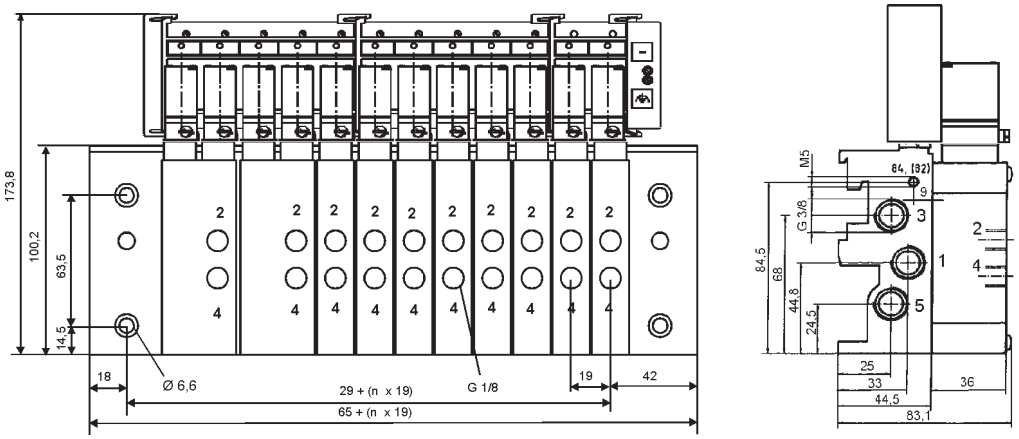


Max. 32 feedbacks
Rating IP 65
Electr. connection
D-SUB (44 pins)

# Centralized Process Actuation Solution for the Processing Industries

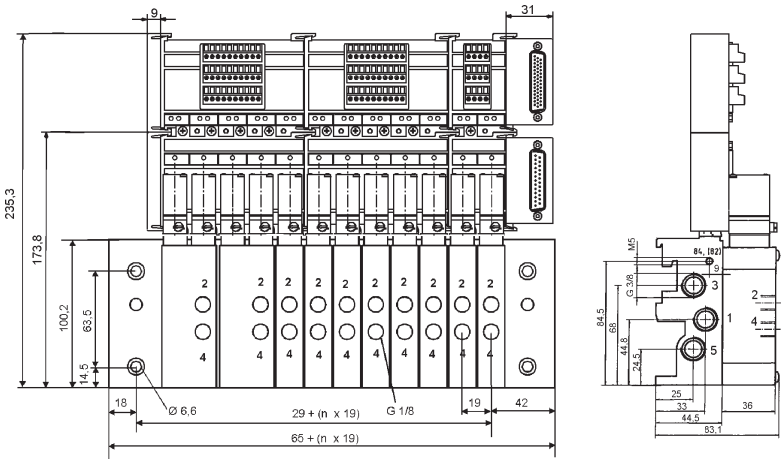
## Dimensions [mm]

### 19 mm Valve Module, Common Connection, 0450



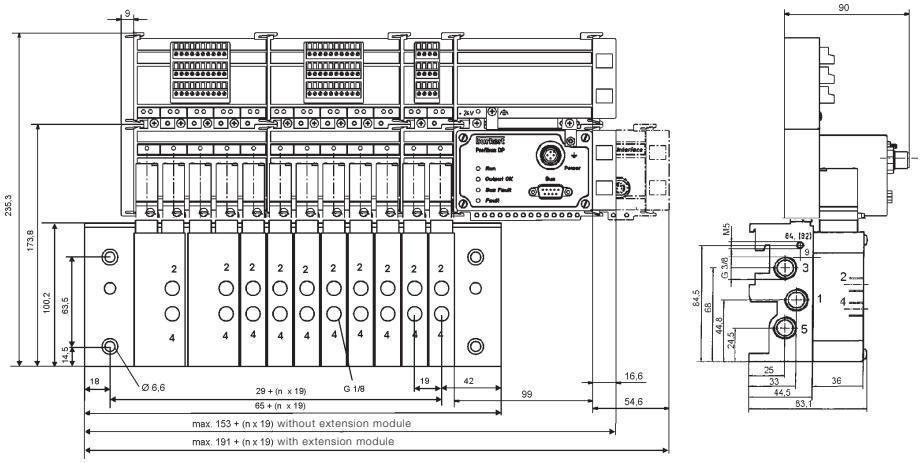

n = number of modules

### 19 mm Valve Module, Multipole, 0450




n = number of modules

### 19 mm Valve Module, Fieldbus, 0450




n = number of modules

In case of special application requirements, please consult for advice.

We reserve the right to make technical changes without notice.
107-GB/ 1-0249



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