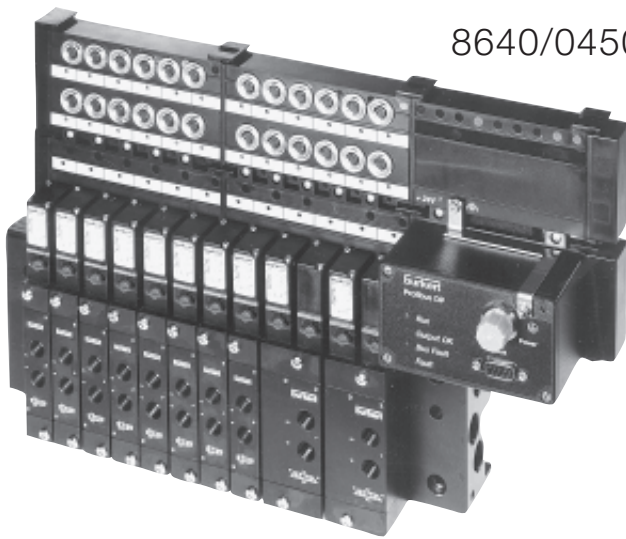



Centralized Process Actuation Solution for the Processing Industries

ON/OFF & Continuous Control

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

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 | G ^{1/8} |
| 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 V _{ss} |

Control Electronics*)

| | |
|-------------------------------|--|
| Operating voltage | 24 V/DC |
| Permissible voltage tolerance | ±10 % |
| Residual ripple | 1 V _{ss} |
| 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) 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:

$I_{\text{Total}} = 500 \text{ mA} + n (I_{\text{nominal}}) + m (20 \text{ mA})$
 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



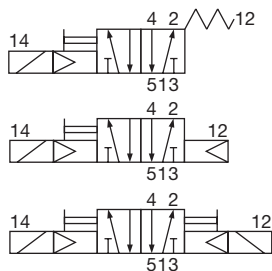
DTS 1000011128 EN Version: A Status: RL (released) | freigegeben | valide | printed: 29.08.2013

Centralized Process Actuation Solution for the Processing Industries

Technical Data

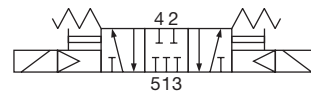
Function H

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



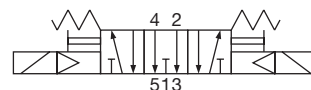
Function L

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

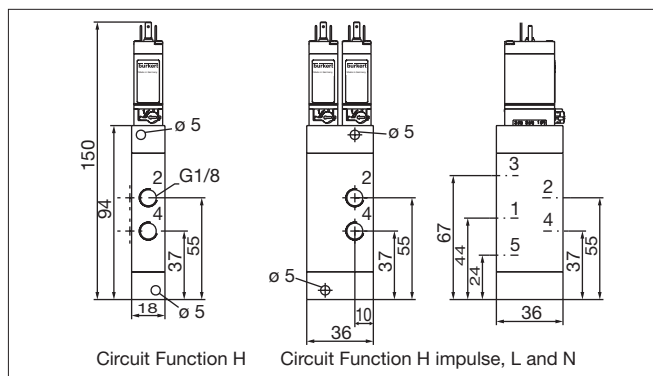


Valve Characteristics

| Circuit function | Flow rate [l/min] | Pressure range [bar] | Rated current [W] | Reset | Response times | | Item-No. |
|------------------|----------------------|-------------------------|----------------------|------------|-----------------|-----------------|-----------|
| | | | | | opening [ms] | closing [ms] | |
| 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 |

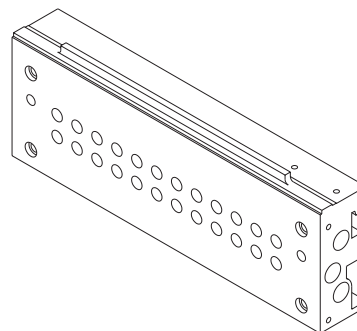
* valves have double mounting dimensions (36 mm wide)

Dimensions [mm] 0450



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 |

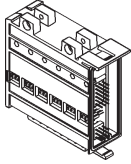


8640
0450

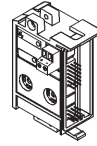
Centralized Process Actuation Solution for the Processing Industries

Modules with Integrated Plugs to Valve Connection

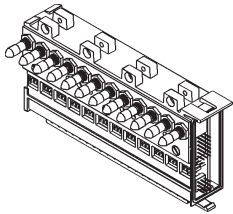
Electrical Basic Module, Standard Version
Max. 2, 5 or 6 valves
Rating IP 65



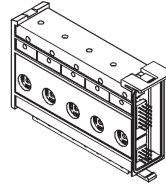
Electrical Basic Module with External Override
Max. 2, 5 or 6 valves
Rating IP 20
Plugable terminals



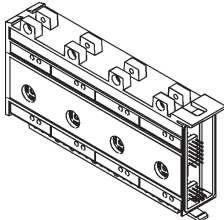
Electrical Basic Module with Manual Override
Max. 2 or 5 valves
Rating IP 20
3-Way lockable switch



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

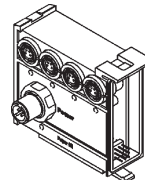


Electrical Basic Module for Impulse Valves
Max. 2, 5 or 6 inputs
Rating IP 20



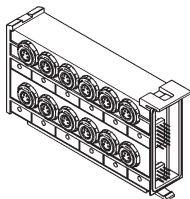
Module with 4 Outputs

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

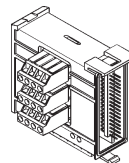


Modules for Position Feedback

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



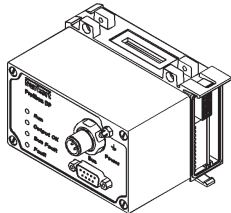
Module with Clamp Connection for Feedback/Initiators
Max. 4, 10 or 12 inputs
Rating IP 20
Plugable terminals



Centralized Process Actuation Solution for the Processing Industries

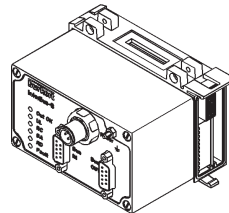
Fieldbus Modules

PROFIBUS DP



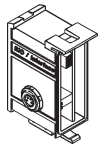
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 9.6; 19.2; 93.75;
187.5; 500 or 1500 kBaud
Electrical conn. M12 (4 pin)
Bus connector D-SUB (9 pin)

InterBus S



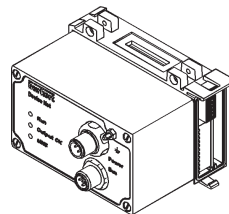
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate 500 kBaud
Electrical conn. M12 (4 pin)
Bus connector 2 x D-SUB (9 pin)

Internal Bus Extension RIO-IF Module



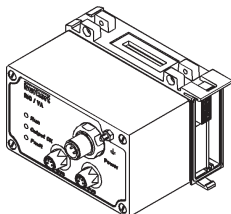
Max. 4 subsequent islands
Rating IP 65
Plug-in coupling
Module for bus extension

Device Net



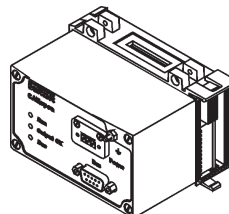
Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate
125; 250 or 500 kBaud
Electrical conn. M12 (4 pin)
Bus connector MICRO style

RIO VA Module



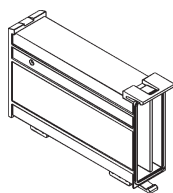
Max. 32 feedbacks
Rating IP 65
Plug connector

Fieldbus CAN Open



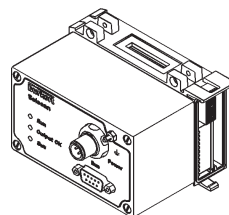
Max. 24 valves
Max. 32 feedbacks
Rating IP 20
Baud rate
20; 125; 250 or 500 kBaud
Electrical conn.
with terminals
Bus connector D-SUB (9 pole)

EME Module



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

Fieldbus SELECAN

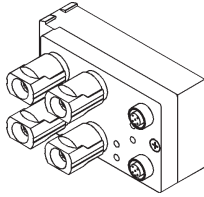


Max. 24 valves
Max. 32 feedbacks
Rating IP 65
Baud rate
20; 100; 500 or 1000 kBaud
Electrical conn. M12 (4 pin)
Bus connector D-SUB (9 pole)

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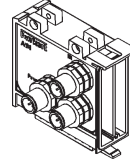
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InterBus Loop



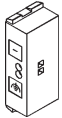
Max. 4 valves
Max. 2 feedbacks and
2 valves
Rating IP 65
Electr. connection
Ease ON PG 13.5
Bus connection
Ease ON PG 11
Round plug M12 for
feedback inputs

Fieldbus AS-Interface



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

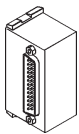
Common Connection for Single Connection of Valves



Max. 24 valves
Rating IP 20
Screw terminals

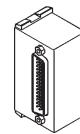
Multipole Modules for Single Connection of Valves and Feedbacks

Multipole Module Valve Outputs



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

Multipole Module Feedback Inputs

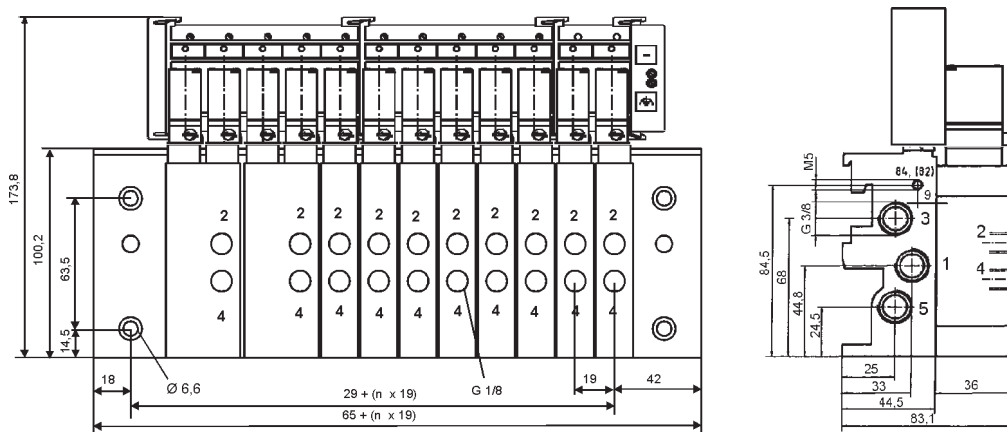


Max. 32 feedbacks
Rating IP 65
Electr. connection
D-SUB (44 pins)

Centralized Process Actuation Solution for the Processing Industries

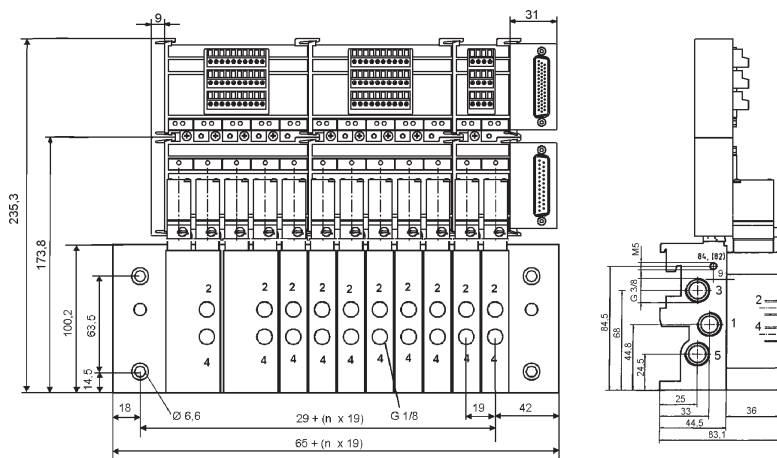
Dimensions [mm]

19 mm Valve Module, Common Connection, 0450



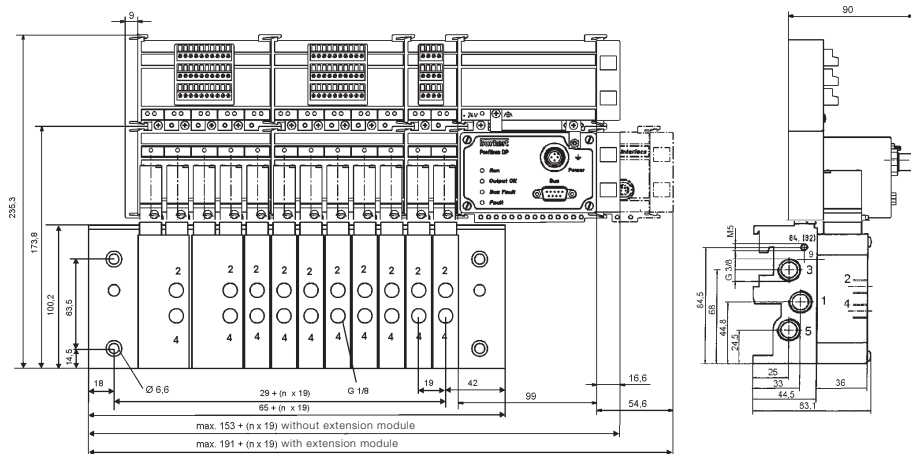
n = number of modules

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