

Efficient operation with frequent color changes

The color change block can be configured for a wide range of low-pressure applications in robotic and automatic systems where frequent color changes are required.



Great advantages, compact installation

Easy integration into robotic & automatic systems

Thanks to its size and modular design, the color change block can be perfectly integrated into various automatic systems, e.g. on a robot arm or in installations with linear axes. It is also used in 2K systems (2K Smart and 2K COMFORT). There are also a variety of connection options for external components such as gear pumps and material pressure regulators.

Modular design for flexible applications

- Compact version as double valve block, one output channel with two valves per valve block, expandable up to 24 valves
- Multi-channel block with any number of inputs and outputs, several valve blocks can be flexibly arranged in a matrix (M x N)
- Optionally available with material pressure regulator

Fast color change & low flushing agent consumption

The dead space-free internal geometry with short flushing times and low flushing agent consumption ensure highly efficient coating processes with fast color changes. The desired application medium is selected via the respective pneumatically controllable valve.

The configuration with two or more output channels offers further time savings: While the active color is being applied, the other channel can be flushed and a second color can be supplied.

Durable & process-safe

The high-quality stainless steel valves are very robust and suitable for water- and solvent-based paints (base coats and hardeners). Depending on the material applied, needle or diaphragm valves can be installed to maximize service life, even for abrasive materials.

Simple maintenance & extensions

Valve replacement and extensions to the color change block can be carried out quickly and without special tools. Thanks to the quick-release fasteners and good accessibility, hoses can be changed in no time at all.

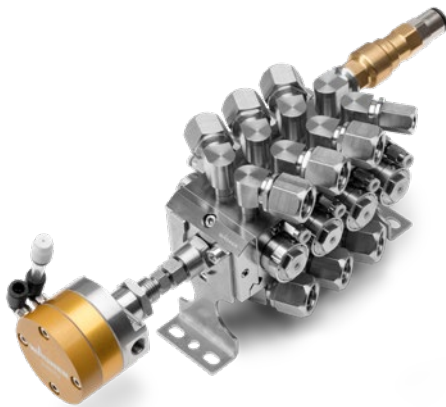
Configuration options

Depending on the application, we offer a wide range of configuration options. We will be happy to help you make the right choice for your application.

Example configuration: Double valve block

Use as a color changer

- 1 output channel
- 2 valves per valve block
- Expandable up to 24 valves
- Optional extensions: circulation, material pressure regulator



Example configuration: Multi-channel block

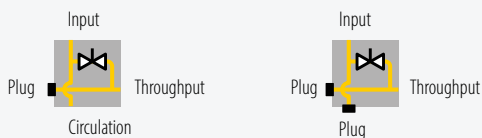
Use for 2K applications or the construction of flexible configurations

- Modularly expandable
- Up to 8 output channels
- Up to 24 input channels
- Optional extensions: circulation, material pressure regulator, mixing tube (mixing regulator)



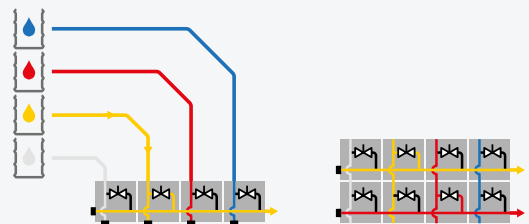
Color change block

The basic function



The core of the color change block is a valve that can be opened by air pressure to control the material flow. It therefore functions as a "switch" or distributor. The material can either pass through unhindered or be directed to another outlet as required.

Modular structure

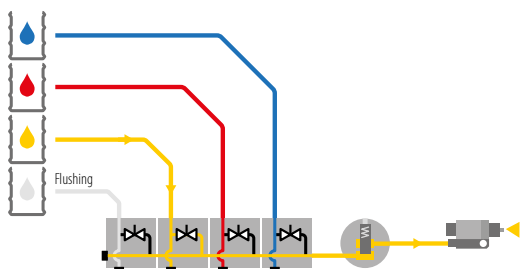


• Single-channel structure

• Two-channel structure

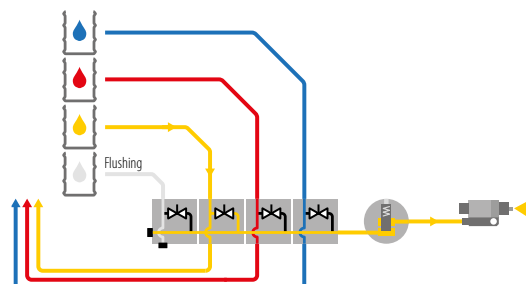
Standard Use Cases I

Color selection **without** circulation



- Color changer for 1K applications with multiple colors
- Double valve block or multi-channel block applicable

Color selection **with** circulation

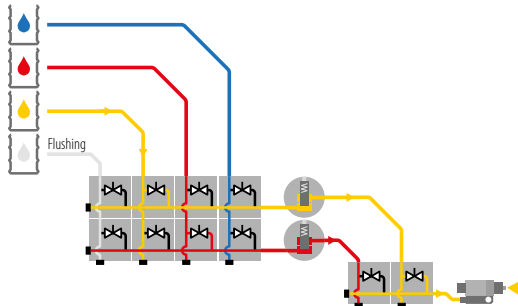


- Color changer for 1K applications with multiple colors
- With color circulation
- Double valve block or multi-channel block applicable

Color change block

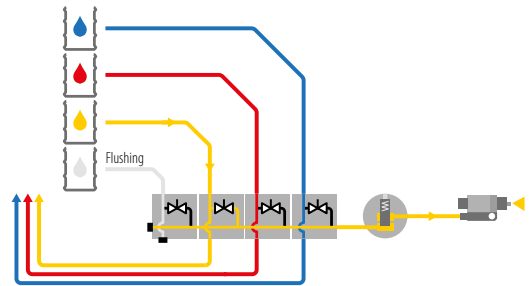
Standard Use Cases II

Quick color change **without** circulation



- Color changer for 1K applications with multiple colors
- One color is applied, a second color can be prepared for quick color change
- Double valve block or multi-channel block applicable

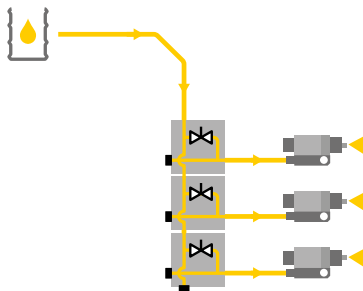
Quick color change **with** circulation



- Color changer for 1K applications with multiple colors
- One color is applied, a second color can be prepared for quick color change
- Double valve block or multi-channel block applicable
- With color circulation

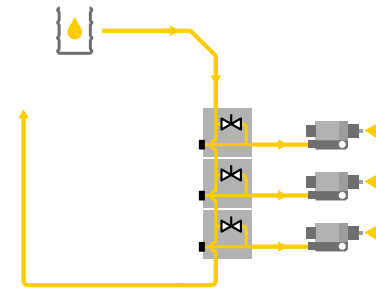
Standard Use Cases III

Color distribution **without** circulation



- Color distribution to several applicators
- Color supply to individual applicators can be switched on/off

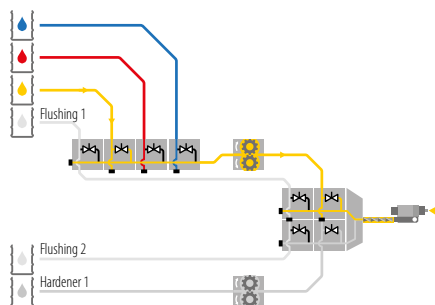
Color distribution **with** circulation



- Color distribution to several applicators with circulation
- Color supply to individual applicators can be switched on/off

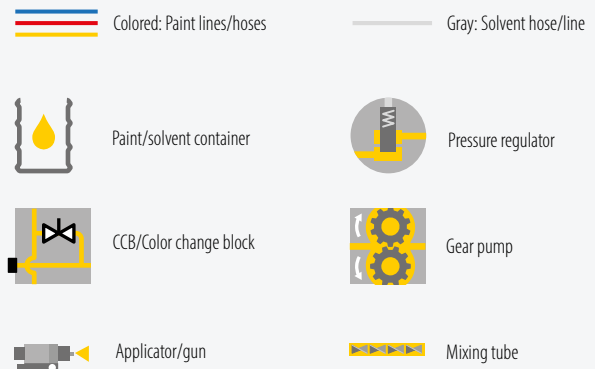
Standard Use Cases IV

Color change with **2K** mixing



- Mixing of different colors with hardener (extendable)
- Cascaded configuration for color change with short flushing times and low consumption of flushing agent
- This configuration is used in particular with gear pumps

Legend



Technical data

Characteristics	Data
Material of color change block housing	Aluminium Consistal (suitable for water- and solvent-based paints)
Central color channel	Ø 4 mm
Scalability multi-channel M x N	24 inputs x 8 outputs
Max. number of valves for double valve color change block	24
Weight of single valve block with valve (without hose connection)	170 g
Weight of double valve block with valve (without hose connection)	250 g
Processable materials	up to 80 DIN4 s
Max. pressure color change block	22 bar (incl. connections)
Dimensions double valve block (h x w x d)	39 x 87 x 33 mm
Dimensions multi-channel block (h x w x d)	53 x 39 x 43 mm

Characteristics	Data
Material connections for quick connectors	6/4, 8/4, 8/5, 9/6, 12/8, 14/10 0° and with 90° angle
Material connection for material outlet	G 1/4" external thread 60° sealing cone G 1/4" female thread 90° sealing cone
Pressure for air connections	5 - 8 bar
Air connection	Ø 4 mm
Material of the valves	Stainless steel (suitable for water- and solvent-based paints)
Max. pressure needle valve	22 bar
Max. pressure diaphragm valve	8 bar
Service life number of cycles needle valve	2.4 million
Service life number of cycles diaphragm valve	1.2 million

