



## Kuhnke Proportional Valves

Highest performance in small size

**eXtra  
valves**  
*Pneumatics for Life Science*

## Highest performance in small size

Kuhnke proportional valves were developed for various control functions. A steady valve opening allows a continuous adjustment of the air flow. Kuhnke proportional valves are characterised by flexibility and reliability under special operating conditions. Modifications of power consumption, use of various media or materials can easily be realised. Series 68P with a width of 15 mm is able to control flow rates between 0 and 90 NI/min.

When space is limited, Kuhnke proportional valves of series 63P (10 mm width) provide new opportunities for applications where flows up to 30 NI/min. are needed. Due to small size and low power consumption Kuhnke proportional valves are most suitable also for mobile applications. Moreover, Kuhnke has great experience in design and development of high-performance electronics. Kuhnke proportional valves reach a high reproducibility and low hysteresis.

## Sophisticated system solutions

A variety of combination possibilities and accessories allow us to cover a wide range of operating conditions with just a few variants.

The flow rate of the 2/2 way valve can be either controlled by an input current or regulated by a range of electrical inputs (sensors, PLC, etc.). The last one allows a precise regulation of fluids also in a closed loop control.

Due to an optimized PWM signal Kuhnke proportional valves reach extended application scopes and improved precision.

Proportional valves combined with the innovative Kuhnke AirBoard®, a printed circuit board with integrated air ducts form a sophisticated system solutions.

Integration of valves on a Kuhnke AirBoard® leads to an elimination of complicated wiring and piping. Moreover, space and weight of the sub-system will be reduced significantly by using light materials and by a compact design.



Series 68P



Series 63P



Kuhnke AirBoard®

## Application possibilities for Kuhnke proportional valves

Through compactness and a low noise level the Kuhnke proportional valves are suitable for the use in machine building, medical technology and laboratory analysis. Possible applications of Kuhnke proportional valves range from control of a fiber tension in the textile production, to flow regulation of various media in endoscopy.

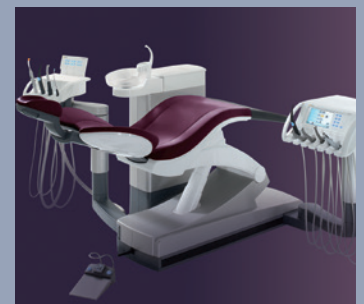
Through compact design and low power consumption Kuhnke proportional valves are particularly suitable for regulation of air flows in mobile breathing devices.



In laboratory devices Kuhnke proportional valves ensure stable flow rates of fluids and their dosing.

In aviation industry Kuhnke proportional valves can help to increase safety on-board when air for oxygen masks is regulated.

Kuhnke proportional valves can also be used for actuation of drill turbines in dental technology.



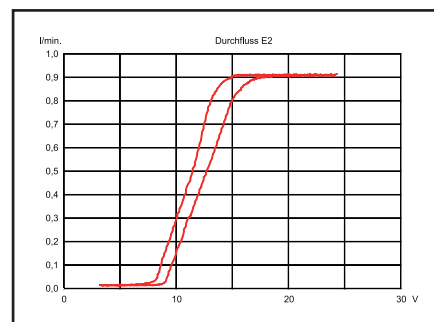
In combination with control electronics on an AirBoard® the requirements of flexibility are fulfilled at maximum performance, low energy consumption and high reproducibility.



# Kuhnke Proportional Valves

## 2/2 Way Valve

<b>Version</b>	Series 63P Series 68P
<b>Function</b>	2/2 way NC
<b>Ambient temperature</b>	-10°C ... +40°C
<b>Materials</b>	body (socket) in PBT seals in NBR
<b>Protection class (DIN EN 60529)</b>	IP 40, IP 65 with flying leads
<b>Nominal voltage</b>	24 VDC ± 10%
<b>Duty cycle</b>	100% ED
<b>Media</b>	filtered (5 µm), lubricated or non lubricated or other neutral gaseous media with permissible viscosity according ISO-VG 10
<b>Approved materials, on request</b>	UL, DVGW, BAM



Hysteresis curve for flow rates of 0 - 90 NI/min.

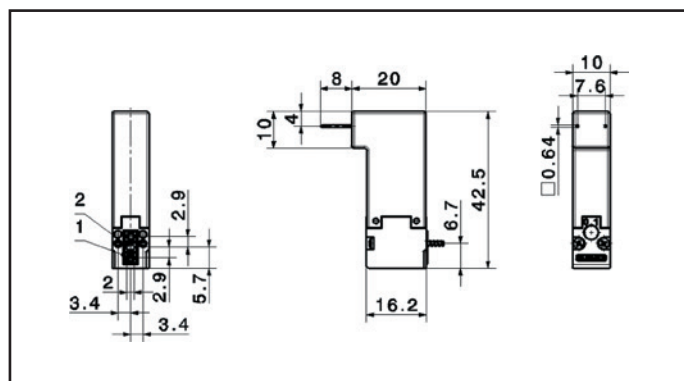
### Technical Data

Series	Orifice [mm]	Max. pressure [bar]	Control input [mA]	$Q_n$ [NI/min.]	Power consumption [W]	Order code <sup>1)</sup>
63P	0.7 0.9	7 5	30 - 130	0 - 20 0 - 30	3.2	63.058.20P (with flying leads) 63.058.30P (with flying leads)
68P	1.2 1.6	7 5	50 - 170	0 - 70 0 - 90	4.2	68.058.30P (with flying leads) 68.058.00P (with flying leads)

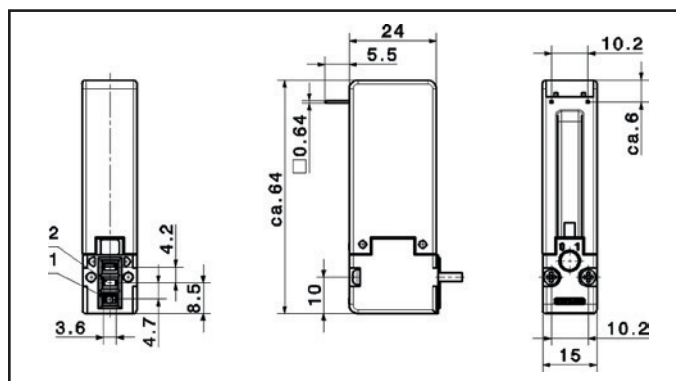


<sup>1)</sup> Other versions on request. Valve produced in accordance with DIN VDE 0580, can also be adapted individually if required.

### Dimensions [mm]



Kuhnke proportional valves of series 63P



Kuhnke proportional valves of series 68P



are valves and pressure regulators as well as check valves and flow regulators designed for special requirements in medical technology, apparatus engineering, and analysis technology. Various technical characteristics of the respective products can be modified to enable e.g. operation with media like oxygen or fluids, in specified pressure ranges, or under demanding ambient conditions.