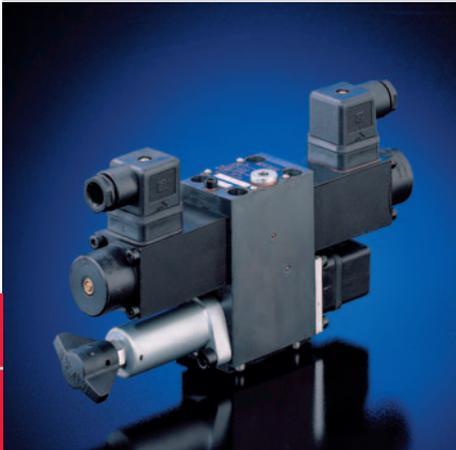


# Clamping modules type NSMD2

The clamping module type NSMD2 is intended for the actuation of hydraulic clamping devices, such as draw-in collets (hollow or massive) at CNC-lathes. Type NSMD2 is designed as manifold mounting valve featuring a hole pattern conforming DIN 24340-A6. All necessary functions to be performed e.g. clamping/releasing of the clamping cylinder, pressure reduction, and electric pressure monitoring (if requested) are housed in one body.

The adjustment of the clamping pressure and the pressure switch takes place via only one adjustment device either manually, with tools or electro-proportionally. This feature is available for consumer port A only or both A and B.

A unique safety circuit monitors the mode of the 4/3- or 4/2-way directional valve. The actuation of these directional valves are usually with spring return but the 4/2-way is also available with detent. Additional functions e.g. throttling in the spool's end position, rapid traverse and creeping for one or both consumer sides are possible. All this enables us to tailor a valve meeting exactly the requirement of the application.



**Nomenclature:** Valve combination consisting of:

- Directional spool valve (4/3-, 4/2-way function)
- Pressure reducing valve with tracked pressure switch

**Design:** Individual valve for sub-plate mounting (Valve banks with sub-plates type BA are available)

**Actuation:** Solenoid

$p_{max}$ : 120 bar

$Q_{max}$ : 25 lpm

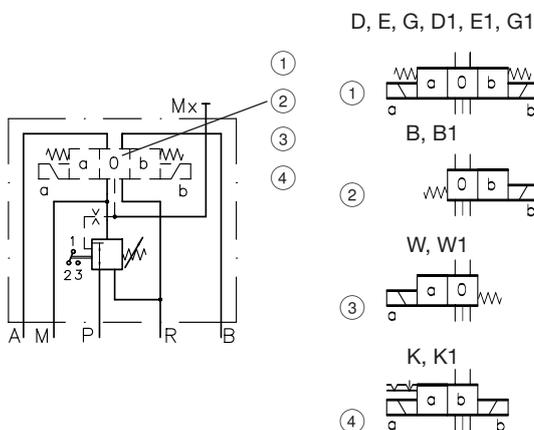
## Basic types and main parameter

Basic type and size	Flow $Q_{max}$ (lpm)	Oper. pressure $p_{max}$ (bar)	Clamping pressure range (bar)	Trigger flow (lpm)	Connection hole pattern <sup>1)</sup>
NSMD2	25	120	5-50 8-80	2-4 3-5 4-6	Hole pattern conf. DIN 24340-A6

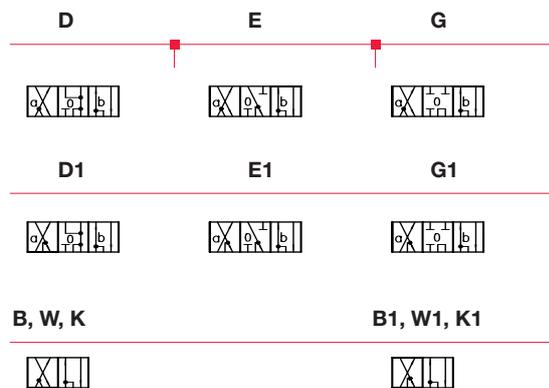
<sup>1)</sup> Port Mx; G 1/8 (BSPP)

## Symbols

### Basic symbols



### Symbols



### Actuation for adjusting the clamping pressure

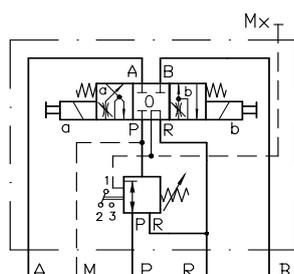
- Slotted head screw + hexagon nut (standard)
- Wing screw + hexagon nut
- Wing screw + wing nut

### Additional versions (further functions)

- Pressure reducing function and throttle in switching positions a and b

Example:

Coding G1/MD

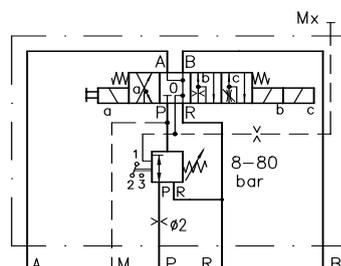


- Rapid traverse and creeping in one direction featuring also a limitation for rapid traverse (switching position a, c) rapid traverse in opposing direction (switching position b)

Switching position a, speed limitation is possible by means of a throttle with pressure reduction and pressure monitoring

Example:

Coding G/MMDA7

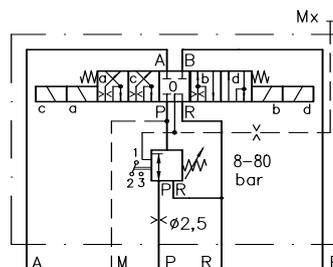


- Turn knob lockable
- Electro-proportional adjustment
- Electro-proportional adjustment with additional function monitoring

- Rapid traverse and creeping in both directions

Example:

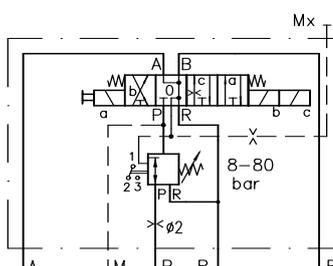
Coding G/MM6



Switching position with fixed rapid traverse speed without pressure reduction and pressure monitoring.

Example:

Coding G/MMA7



### Solenoid voltage

- 12V DC, 24V DC, 230V AC 50/60Hz
- Other voltage on request

### Order examples

#### NSMD2K/M/GDK/B2,5-G24

Clamping module type NSMD size 2 with industrial standard (DIN 24340-A6) connection hole pattern, flow pattern symbol K, detented version, clamping pressure range G, 5-50 bar and min. operational flow 2-4 lpm. The actuation for the adjustment of the clamping pressure and tracked pressure switch takes place by means of wing screw and wing nut. A throttle  $\varnothing$  2.5 mm is installed in the P gallery, solenoid voltage 24V DC.

- Plug with LED's or to improve the EMC (see also "Additional information")

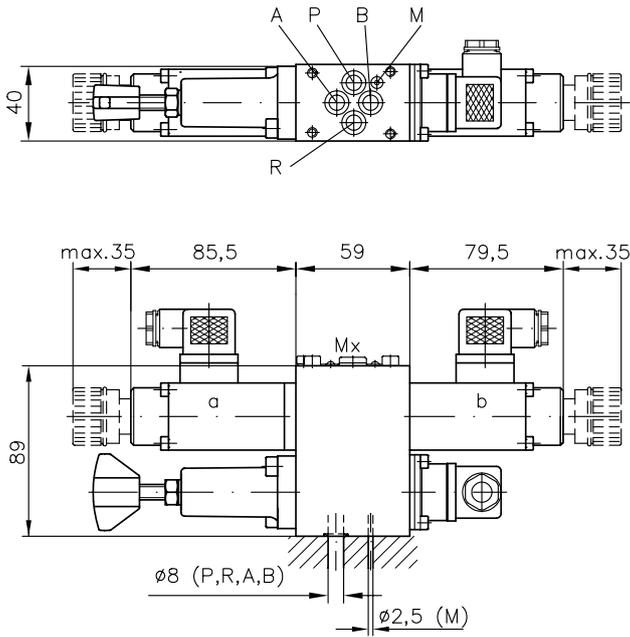
#### NSMD2G1/MD/E4VK/B1-G12

Clamping module type NSMD size 2 with industrial standard connection hole pattern conf. DIN 24340-A6, flow pattern symbol G1 with pressure monitoring at port A, adjustable throttle setting for switching position a and b. Valve for clamping pressure range E, 8-80 bar and min. operational flow 4-6 lpm. The actuation for the adjustment of the clamping pressure and tracked pressure switch takes place with self-locking turn knob. A throttle  $\varnothing$  1 mm is installed in the P gallery, solenoid voltage 12V DC.

Directional spool valve

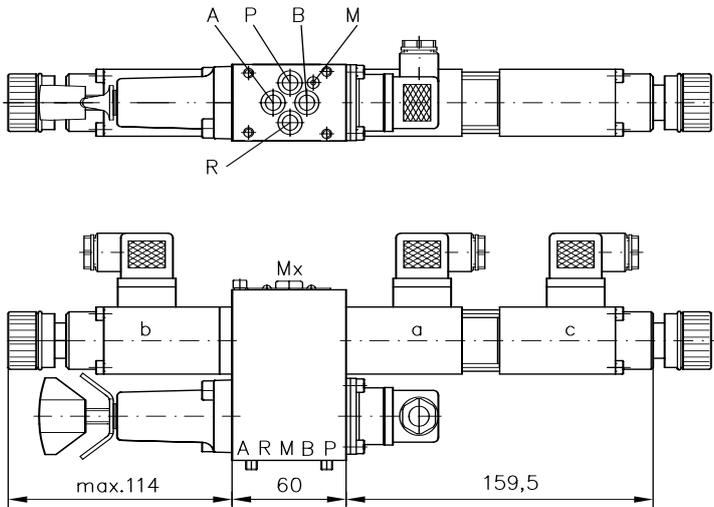
**Dimensions**

Type NSMD2 K... (see order example)



Basic type	Individual valve <sup>1)</sup> m (kg)	Additional function m (kg)
NSMD2	2.2...3.8	+ 0.6...1.1

Type NSMD2 G... (see order example)



<sup>1)</sup> Depending on flow pattern symbol and actuation mode

All dimensions in mm, subject to change without notice!

**Additional information**

- |  |                  |                             |                |
|--|------------------|-----------------------------|----------------|
| • Clamping module type NSMD            | D 7787           | • Plug with LED's           | D 7163         |
| • Valve banks type BA2                 | D 7788, D 7788 Z | • Plug with economy circuit | D 7813, D 7833 |
| • Directional seated valve type VZP1   | D 7785 A         |                             |                |
| • Valve bank type BVZP1                | D 7785 B         |                             |                |
| • Directional valve type NSWP2         | D 7451 N         |                             |                |
| • Directional seated valve type NBVP16 | D 7765 N         |                             |                |
- For page and section of the devices additionally listed, see type index

Example circuit

HK 43L/1M-Z 9,8-AL 21F2-F60/70-2-BA 2 - NSMD2K/M/GDK/B2,5/0  
 - NSMD2D/MMDA7/GDK/B2/0-G24

