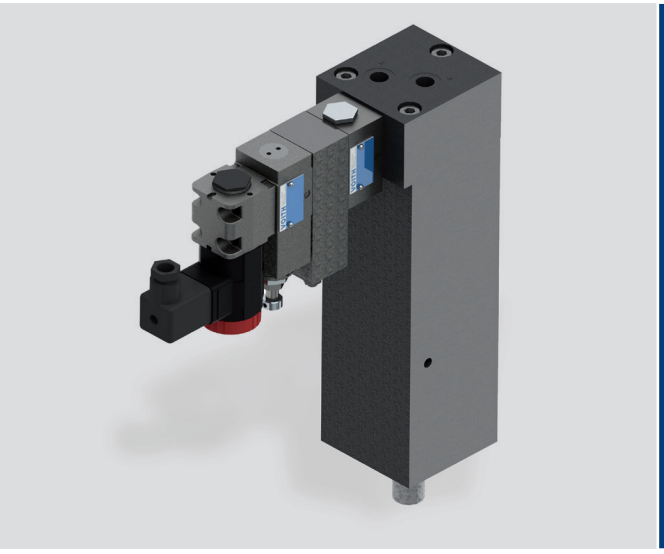
Hydraulic Stroke Cylinder Unit HZE NG 4

Technical Data Sheet



Design and Function

The design of the stroke cylinder unit is: modular, compact and robust. All valves are fitted directly on the block cylinder and thus allows the optimum power density. The electronic complexity is reduced to a minimum. With the optional HS2 electronic module valve switching time is reduced to a minimum and the stroke cycles can be monitored.

Technical Data

General:

Ram force	10 to 200 kN (standard series)
Ram return force	approx. 50% ram force
Ambient temperature	-5 to +50 °C
Mounting position	mountable in any position

Hydraulic:

Operating pressure	max. 250 bar
Hydraulic oil temperature	-10 to +70 °C
Viscosity range	10 to 300 mm^2/s

Electric:

Valve voltage (±10%)	24 V DC
Switching time „Start“	17 ms
Valve switching time from „bdc“	17 ms
Power consumption P20	20 W
System of protection DIN 40050	IP65 with valve plug connected

Further specific performance data according to computation minutes.

Options

- variable speed
- variable force
- load holding
- proportional technology

Electronic Control (Option)

- linkage between machine control and HZE
- stroke cycle monitoring
- switching time acceleration

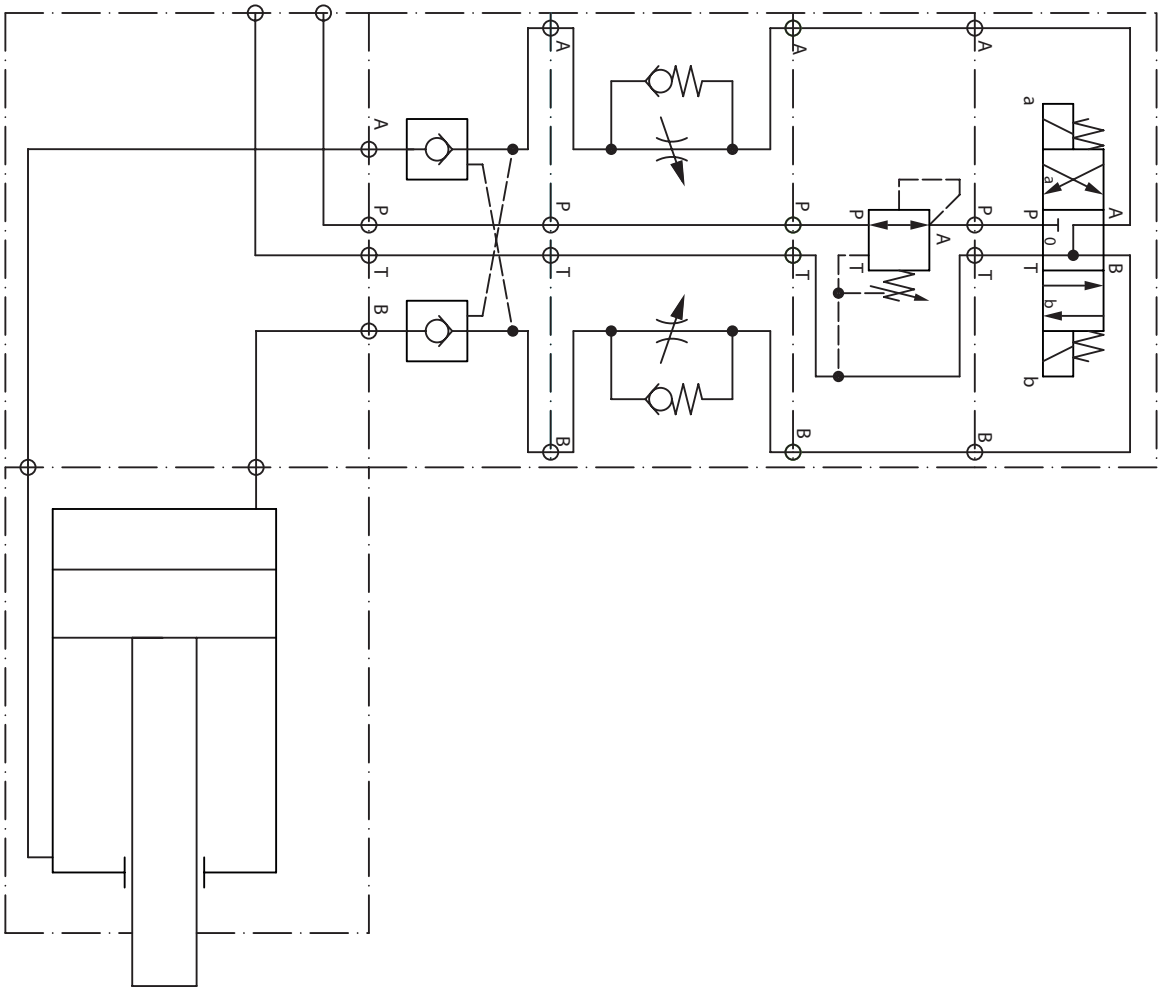
Applications

- punching / shearing / cutting
- stamping / forming
- positioning
- clamping
- ejection

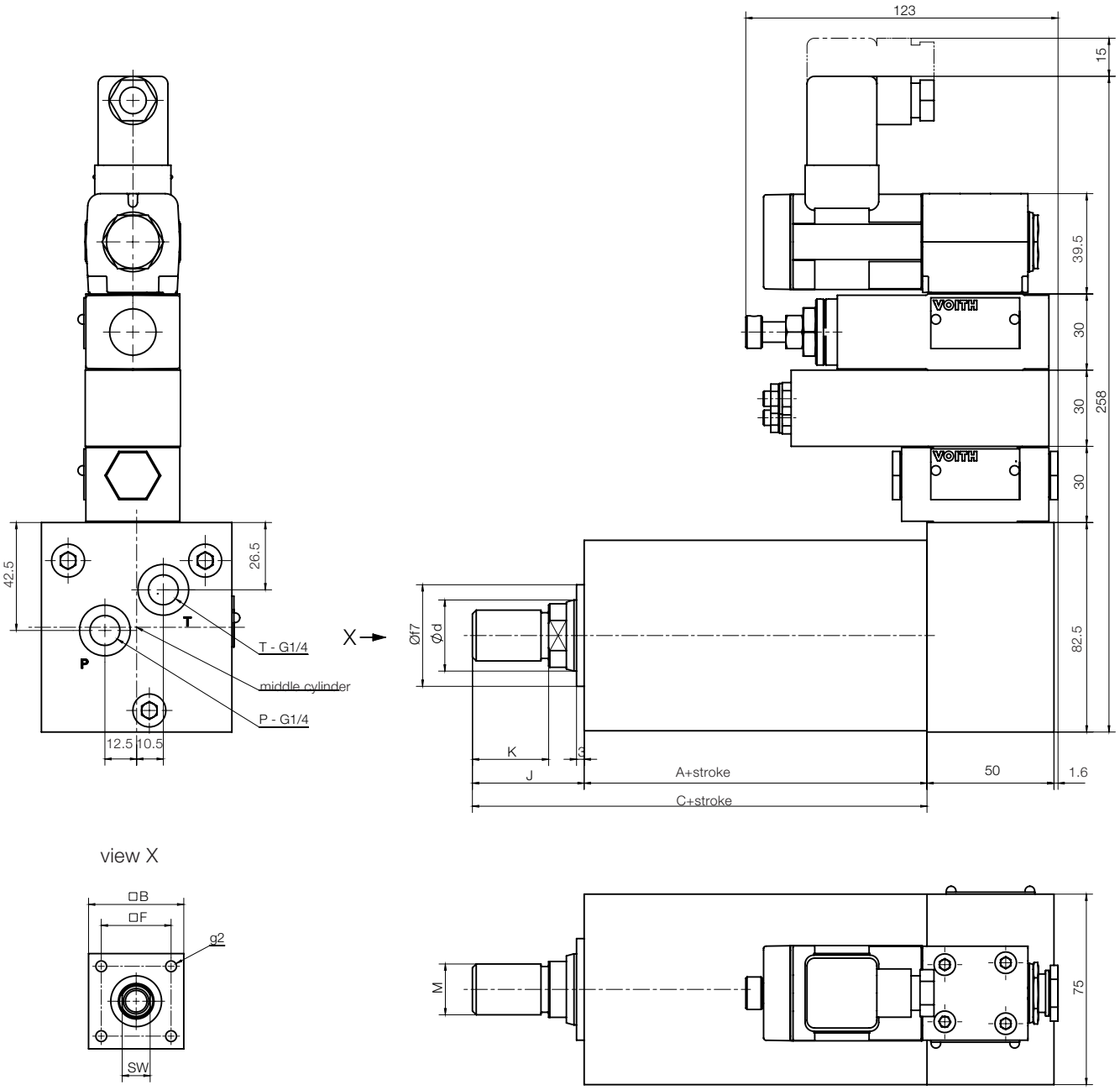
Examples of Applications

Applications	Specific Performance
Clamping cylinder	• Clamping force: 70 kN • Total cycle time at 10 mm stroke: 40 ms
Wire cutting machine	• Cutting force: 20 kN • Total cycle time at 12 mm stroke: 35 ms

Hydraulic Circuit HZE NG 4



Basic Dimensional Drawing HZE NG 4

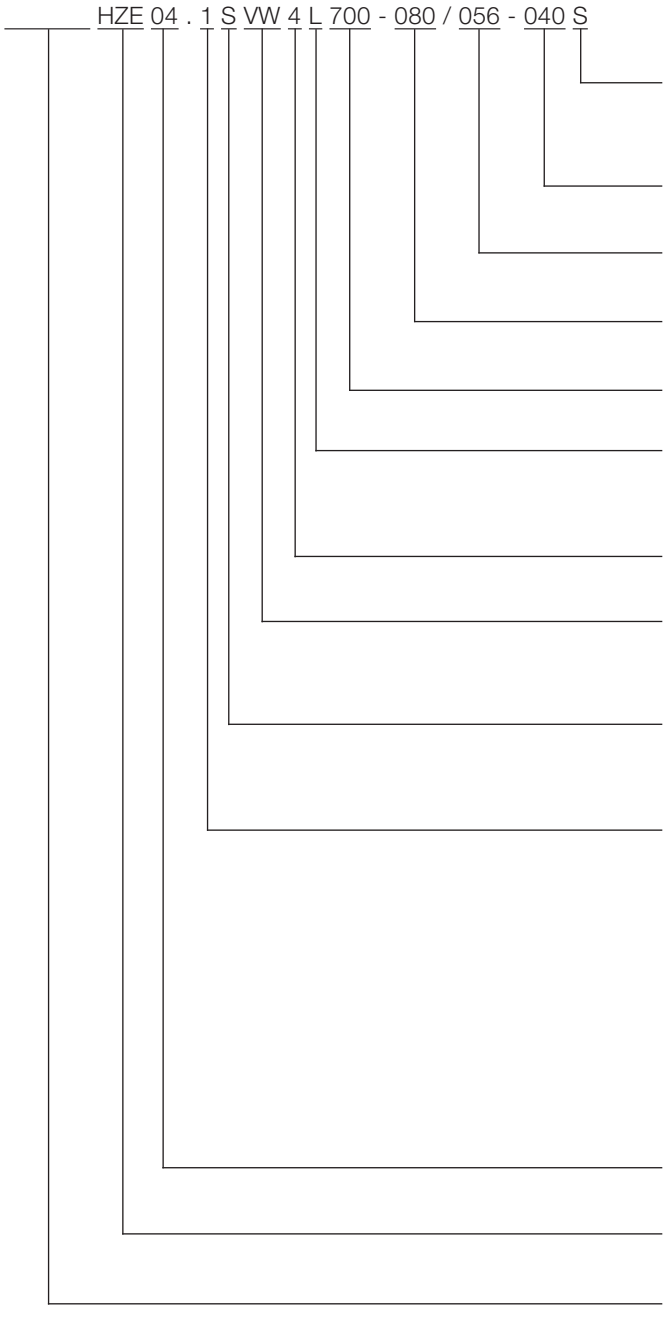


Dimension Table Standard Cylinders

Force* [kN]	v** [mm/s]	Ø Piston [mm]	Ø d [mm]	A [mm]	B [mm]	C [mm]	F [mm]	J [mm]	K [mm]	M [mm]	SW [mm]	g2 [mm]
30	330	40	28	90	75	134	55	44	30	M20x1,5	22	M10
50	210	50	35	98	90	153	65	55	35	M27x2	27	M12
80	130	63	45	120	105	182	70	62	42	M30x2	36	M16
125	80	80	56	135	125	210	90	75	50	M42x2	46	M16
200	50	100	70	190	150	280	110	90	60	M48x2	60	M20

other cylinder dimensions on request; all dimensions in mm;
*at piston side pressure of 250 bar; **at flow of 25 l/min

Type Code



cylinder code
N = VTHL norm; S = special design

max. cylinder stroke

rod diameter

piston diameter

design code

type of directional control valve
L = horizontal; R = vertical

nominal size

control type
VW = four way operation

bdc reversing
S = standard; P = proportional

valve structure
1 = basic (only directional control valve)
2 = M11 throttle check valve
3 = D40 pressure-reducing valve
4 = RVY2 piloted check valve
5 = M11 + D40
6 = M11 + RVY2
7 = D40 + RVY2
8 = M11 + D40 + RVY2

symbol

stroke cylinder unit

material number

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