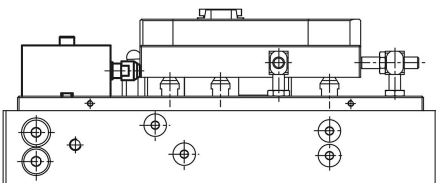
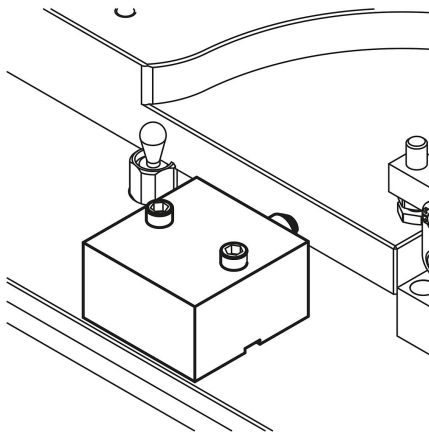
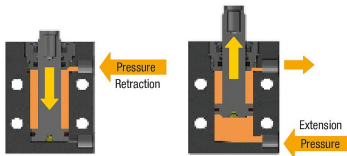
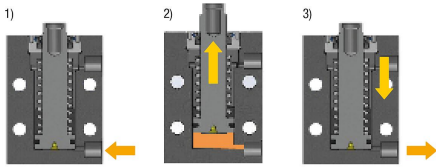
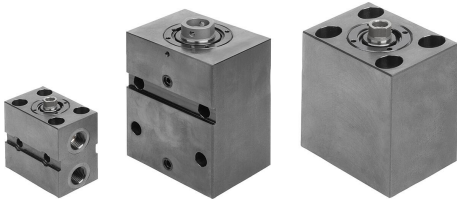


# Block cylinders, hydraulic with metal wiper double / single acting with spring return

Item description/product images



## Description

### Product description:

Block cylinders with piston rod with internal thread are ideally suited for clamping situations where short travel with high forces is required. Block cylinders can be used as thrust or traction cylinders. Various thrust pieces can be screwed into the internal threads of the piston rods. The block cylinders ensure a high operating pressure and are easy to fasten using cap screws due to their compact, cubic housing design. A double hydraulic seal is installed in the block cylinders as standard. This creates technical advantages for the rod-side seal for low-leakage continuous operation. Metal wipers are also installed in the block cylinders as standard to prevent the ingress of swarf.

### Material:

Housing and piston steel.  
Seal NBR

### Version:

Housing black oxidised.  
Piston hardened.

### Note:

Transverse forces on the block cylinders should be avoided.

If the block cylinder is mounted transversely to the cylinder axis, additional support for the block cylinder is recommended. If the block cylinder is used as a thrust cylinder, the support should be on the underside; if it is used as a traction cylinder, it should be on the rod side.

Permissible dynamic loads during the piston advance stroke must be observed. A vent port is required for the single-acting block cylinders.

Penetration of cutting and cooling fluids into the cylinder must be prevented.

Thrust pieces are not supplied.

Follow safety instructions.

### Type of operation:

- Thread connection.
- O-ring flange connection.

### Technical data:

Max. operating pressure: 500 bar.

### Assembly:

See mounting contour.

### Advantages:

- Integrated metal wiper.
- Versatile mounting possibilities.
- Wide travel range.
- Large force range.
- Low mounting dimensions.
- Double hydraulic seals installed.

# Block cylinders, hydraulic with metal wiper double / single acting with spring return

Item description/product images

## On request:

Larger piston diameters, longer strokes and with position control.

## Supplied with:

2x O-rings (for flange connection operating mode) supplied.

## Accessory:

- Rest pads K0307.
- Self-aligning pads K0282, K0302, K1164, K0287, K0288.
- Gripper screws, hexagonal K0386.

## Drawing reference:

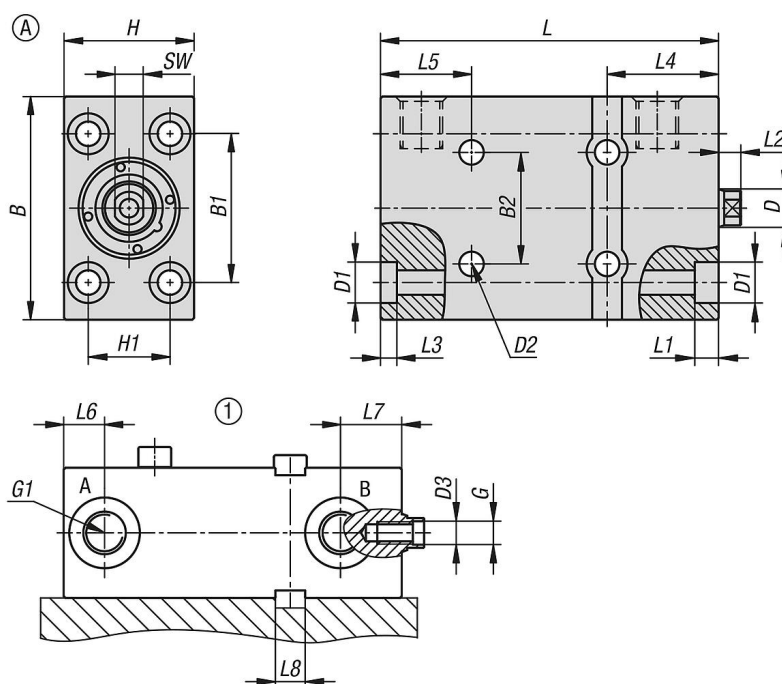
Form A: Longitudinal and transverse holes, screwed connection

Form B: Underside, centre hole, O-ring flange connection

Form C: Wide side, O-ring- flange connection

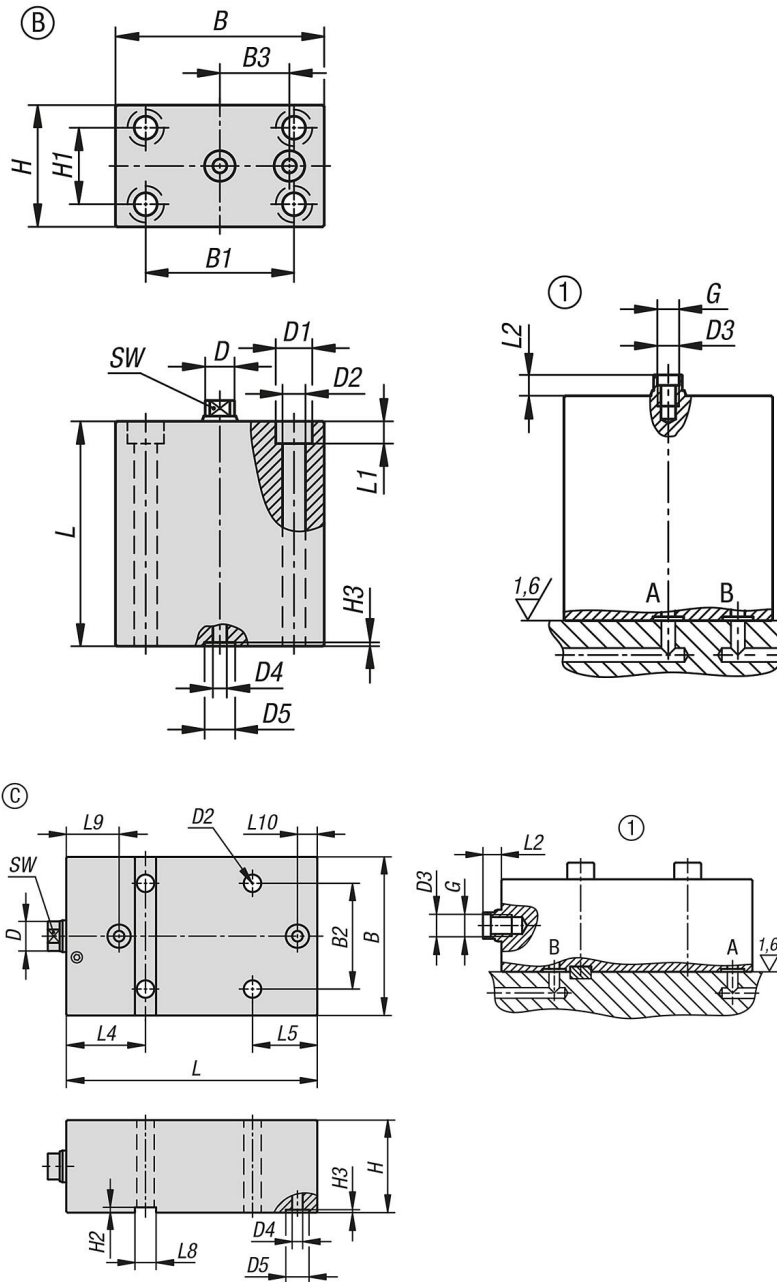
## 1) Mounting contour

## Drawings



# Block cylinders, hydraulic with metal wiper double / single acting with spring return

Drawings



## Overview of items

### Block cylinders, hydraulic with metal wiper, double / single acting with spring return

Order No.	Form	Form definition	Piston Ø	travel	Connection type	B	B1	B2	B3	D	D1	D2	D3	D4	D5	G	G1	H	H1	H2	H3
K1859.160821011	A	single-acting	16	8	screw connection	60	40	30	-	10	11	6,5	6,3x3	-	-	M6x15	G1/4	35	22	2	-
K1859.162021011	A	single-acting	16	20	screw connection	60	40	30	-	10	11	6,5	6,3x3	-	-	M6x15	G1/4	35	22	2	-
K1859.200821011	A	single-acting	20	8	screw connection	60	40	40	-	12	11	6,5	8,5x3	-	-	M8x16	G1/4	35	22	2	-
K1859.202021011	A	single-acting	20	20	screw connection	60	40	40	-	12	11	6,5	8,5x3	-	-	M8x16	G1/4	35	22	2	-
K1859.250821011	A	single-acting	25	8	screw connection	65	50	50	-	16	14	8,5	10,5x4	-	-	M10x17	G1/4	45	30	2	-
K1859.252021011	A	single-acting	25	20	screw connection	65	50	50	-	16	14	8,5	10,5x4	-	-	M10x17	G1/4	45	30	2	-
K1859.321021011	A	single-acting	32	10	screw connection	75	55	55	-	20	18	10,5	12,5x4	-	-	M12x18	G1/4	55	35	3	-
K1859.322021011	A	single-acting	32	20	screw connection	75	55	55	-	20	18	10,5	12,5x4	-	-	M12x18	G1/4	55	35	3	-
K1859.401021011	A	single-acting	40	10	screw connection	85	63	63	-	25	18	10,5	16,5x7	-	-	M16x27	G1/4	63	40	3	-

# Block cylinders, hydraulic with metal wiper double / single acting with spring return

## Overview of items

Order No.	Form	Form definition	Piston Ø	travel	Connection type	B	B1	B2	B3	D	D1	D2	D3	D4	D5	G	G1	H	H1	H2	H3
K1859.402021011	A	single-acting	40	20	screw connection	85	63	63	-	25	18	10,5	16,5x7	-	-	M16x27	G1/4	63	40	3	-
K1859.161611011	A	double-acting	16	16	screw connection	60	40	30	-	10	11	6,5	6,3x3	-	-	M6x15	G1/4	35	22	2	-
K1859.163211011	A	double-acting	16	32	screw connection	60	40	30	-	10	11	6,5	6,3x3	-	-	M6x15	G1/4	35	22	2	-
K1859.165011011	A	double-acting	16	50	screw connection	60	40	30	-	10	11	6,5	6,3x3	-	-	M6x15	G1/4	35	22	2	-
K1859.201611011	A	double-acting	20	16	screw connection	60	40	40	-	12	11	6,5	8,5x3	-	-	M8x16	G1/4	35	22	2	-
K1859.203211011	A	double-acting	20	32	screw connection	60	40	40	-	12	11	6,5	8,5x3	-	-	M8x16	G1/4	35	22	2	-
K1859.205011011	A	double-acting	20	50	screw connection	60	40	40	-	12	11	6,5	8,5x3	-	-	M8x16	G1/4	35	22	2	-
K1859.252011011	A	double-acting	25	20	screw connection	65	50	50	-	16	14	8,5	10,5x4	-	-	M10x17	G1/4	45	30	2	-
K1859.255011011	A	double-acting	25	50	screw connection	65	50	50	-	16	14	8,5	10,5x4	-	-	M10x17	G1/4	45	30	2	-
K1859.322511011	A	double-acting	32	25	screw connection	75	55	55	-	20	18	10,5	12,5x4	-	-	M12x18	G1/4	55	35	3	-
K1859.325011011	A	double-acting	32	50	screw connection	75	55	55	-	20	18	10,5	12,5x4	-	-	M12x18	G1/4	55	35	3	-
K1859.402511011	A	double-acting	40	25	screw connection	85	63	63	-	25	18	10,5	16,5x7	-	-	M16x27	G1/4	63	40	3	-
K1859.405011011	A	double-acting	40	50	screw connection	85	63	63	-	25	18	10,5	16,5x7	-	-	M16x27	G1/4	63	40	3	-
K1859.160822021	B	single-acting	16	8	o-ring flange connection	60	40	-	20	10	11	6,5	6,3x3	4	8,8	M6x15	-	35	22	-	1,1
K1859.162022021	B	single-acting	16	20	o-ring flange connection	60	40	-	20	10	11	6,5	6,3x3	4	8,8	M6x15	-	35	22	-	1,1
K1859.200822021	B	single-acting	20	8	o-ring flange connection	60	40	-	22	12	11	6,5	8,5x3	4	8,8	M8x16	-	35	22	-	1,1
K1859.202022021	B	single-acting	20	20	o-ring flange connection	60	40	-	22	12	11	6,5	8,5x3	4	8,8	M8x16	-	35	22	-	1,1
K1859.250822021	B	single-acting	25	8	o-ring flange connection	65	50	-	25	16	14	8,5	10,5x4	4	9,8	M10x17	-	45	30	-	1,1
K1859.252022021	B	single-acting	25	20	o-ring flange connection	65	50	-	25	16	14	8,5	10,5x4	4	9,8	M10x17	-	45	30	-	1,1
K1859.321022021	B	single-acting	32	10	o-ring flange connection	75	55	-	27,5	20	18	10,5	12,5x4	5	9,8	M12x18	-	55	35	-	1,1
K1859.322022021	B	single-acting	32	20	o-ring flange connection	75	55	-	27,5	20	18	10,5	12,5x4	5	9,8	M12x18	-	55	35	-	1,1
K1859.401022021	B	single-acting	40	10	o-ring flange connection	85	63	-	31,5	25	18	10,5	16,5x7	5	9,8	M16x27	-	63	40	-	1,1
K1859.402022021	B	single-acting	40	20	o-ring flange connection	85	63	-	31,5	25	18	10,5	16,5x7	5	9,8	M16x27	-	63	40	-	1,1
K1859.161612021	B	double-acting	16	16	o-ring flange connection	60	40	-	20	10	11	6,5	6,3x3	4	8,8	M6x15	-	35	22	-	1,1
K1859.163212021	B	double-acting	16	32	o-ring flange connection	60	40	-	20	10	11	6,5	6,3x3	4	8,8	M6x15	-	35	22	-	1,1
K1859.165012021	B	double-acting	16	50	o-ring flange connection	60	40	-	20	10	11	6,5	6,3x3	4	8,8	M6x15	-	35	22	-	1,1
K1859.201612021	B	double-acting	20	16	o-ring flange connection	60	40	-	22	12	11	6,5	8,5x3	4	8,8	M8x16	-	35	22	-	1,1
K1859.203212021	B	double-acting	20	32	o-ring flange connection	60	40	-	22	12	11	6,5	8,5x3	4	8,8	M8x16	-	35	22	-	1,1
K1859.205012021	B	double-acting	20	50	o-ring flange connection	60	40	-	22	12	11	6,5	8,5x3	4	8,8	M8x16	-	35	22	-	1,1
K1859.252012021	B	double-acting	25	20	o-ring flange connection	65	50	-	25	16	14	8,5	10,5x4	4	9,8	M10x17	-	45	30	-	1,1
K1859.255012021	B	double-acting	25	50	o-ring flange connection	65	50	-	25	16	14	8,5	10,5x4	4	9,8	M10x17	-	45	30	-	1,1
K1859.322512021	B	double-acting	32	25	o-ring flange connection	75	55	-	27,5	20	18	10,5	12,5x4	5	9,8	M12x18	-	55	35	-	1,1
K1859.325012021	B	double-acting	32	50	o-ring flange connection	75	55	-	27,5	20	18	10,5	12,5x4	5	9,8	M12x18	-	55	35	-	1,1
K1859.402512021	B	double-acting	40	25	o-ring flange connection	85	63	-	31,5	25	18	10,5	16,5x7	5	9,8	M16x27	-	63	40	-	1,1
K1859.405012021	B	double-acting	40	50	o-ring flange connection	85	63	-	31,5	25	18	10,5	16,5x7	5	9,8	M16x27	-	63	40	-	1,1
K1859.160822031	C	single-acting	16	8	o-ring flange connection	60	-	30	-	10	-	6,5	6,3x3	4	8,8	M6x15	-	35	-	2	1,1
K1859.162022031	C	single-acting	16	20	o-ring flange connection	60	-	30	-	10	-	6,5	6,3x3	4	8,8	M6x15	-	35	-	2	1,1
K1859.200822031	C	single-acting	20	8	o-ring flange connection	60	-	40	-	12	-	6,5	8,5x3	4	8,8	M8x16	-	35	-	2	1,1
K1859.202022031	C	single-acting	20	20	o-ring flange connection	60	-	40	-	12	-	6,5	8,5x3	4	8,8	M8x16	-	35	-	2	1,1
K1859.250822031	C	single-acting	25	8	o-ring flange connection	65	-	50	-	16	-	8,5	10,5x4	4	9,8	M10x17	-	45	-	2	1,1
K1859.252022031	C	single-acting	25	20	o-ring flange connection	65	-	50	-	16	-	8,5	10,5x4	4	9,8	M10x17	-	45	-	2	1,1
K1859.321022031	C	single-acting	32	10	o-ring flange connection	75	-	55	-	20	-	10,5	12,5x4	5	9,8	M12x18	-	55	-	3	1,1
K1859.322022031	C	single-acting	32	20	o-ring flange connection	75	-	55	-	20	-	10,5	12,5x4	5	9,8	M12x18	-	55	-	3	1,1
K1859.401022031	C	single-acting	40	10	o-ring flange connection	85	-	63	-	25	-	10,5	16,5x7	5	9,8	M16x27	-	63	-	3	1,1
K1859.402022031	C	single-acting	40	20	o-ring flange connection	85	-	63	-	25	-	10,5	16,5x7	5	9,8	M16x27	-	63	-	3	1,1
K1859.161612031	C	double-acting	16	16	o-ring flange connection	60	-	30	-	10	-	6,5	6,3x3	4	8,8	M6x15	-	35	-	2	1,1
K1859.163212031	C	double-acting	16	32	o-ring flange connection	60	-	30	-	10	-	6,5	6,3x3	4	8,8	M6x15	-	35	-	2	1,1
K1859.165012031	C	double-acting	16	50	o-ring flange connection	60	-	30	-	10	-	6,5	6,3x3	4	8,8	M6x15	-	35	-	2	1,1
K1859.201612031	C	double-acting	20	16	o-ring flange connection	60	-	40	-	12	-	6,5	8,5x3	4	8,8	M8x16	-	35	-	2	1,1
K1859.203212031	C	double-acting	20	32	o-ring flange connection	60	-	40	-	12	-	6,5	8,5x3	4	8,8	M8x16	-	35	-	2	1,1
K1859.205012031	C	double-acting	20	50	o-ring flange connection	60	-	40	-	12	-	6,5	8,5x3	4	8,8	M8x16	-	35	-	2	1,1
K1859.252012031	C	double-acting	25	20	o-ring flange connection	65	-	50	-	16	-	8,5	10,5x4	4	9,8	M10x17	-	45	-	2	1,1
K1859.255012031	C	double-acting	25	50	o-ring flange connection	65	-	50	-	16	-	8,5	10,5x4	4	9,8	M10x17	-	45	-	2	1,1
K1859.322512031	C	double-acting	32	25	o-ring flange connection	75	-	55	-	20	-	10,5	12,5x4	5	9,8	M12x18	-	55	-	3	1,1
K1859.325012031	C	double-acting	32	50	o-ring flange connection	75	-	55	-	20	-	10,5	12,5x4	5	9,8	M12x18	-	55	-	3	1,1
K1859.402512031	C	double-acting	40	25	o-ring flange connection	85	-	63	-	25	-	10,5	16,5x7	5	9,8	M16x27	-	63	-	3	1,1
K1859.405012031	C	double-acting	40	50	o-ring flange connection	85	-	63	-	25	-	10,5	16,5x7	5	9,8	M16x27	-	63	-	3	1,1

## Block cylinders, hydraulic with metal wiper

# Block cylinders, hydraulic with metal wiper double / single acting with spring return

## Overview of items

Order No.	Form	Form definition	Piston Ø	travel	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	SW	Effective piston area (cm <sup>2</sup> )	Compressive force at 100 bar (kN)	Tractive force at 100 bar (kN)
K1859.160821011	A	single-acting	16	8	56	6,4	6	4,4	30	-	11	16,5	8	-	-	8	2	2	-
K1859.162021011	A	single-acting	16	20	91	6,4	6	4,4	30	-	11	16,5	8	-	-	8	2	2	-
K1859.200821011	A	single-acting	20	8	61	6,4	7	4,4	30	-	11	16,5	8	-	-	10	3,1	3,1	-
K1859.202021011	A	single-acting	20	20	95	6,4	7	4,4	30	-	11	16,5	8	-	-	10	3,1	3,1	-
K1859.250821011	A	single-acting	25	8	64	8,6	7	6,4	33	-	11	18	10	-	-	13	4,9	4,9	-
K1859.252021011	A	single-acting	25	20	94	8,6	7	6,4	33	-	11	18	10	-	-	13	4,9	4,9	-
K1859.321021011	A	single-acting	32	10	75	10,6	10	7,6	38	-	11	22	12	-	-	17	8	8	-
K1859.322021011	A	single-acting	32	20	100	10,6	10	7,6	38	-	11	22	12	-	-	17	8	8	-
K1859.401021011	A	single-acting	40	10	79	10,6	10	10,6	40	-	11	24	12	-	-	22	12,5	12,6	-
K1859.402021011	A	single-acting	40	20	104	10,6	10	10,6	40	-	11	24	12	-	-	22	12,5	12,6	-
K1859.161611011	A	double-acting	16	16	56	6,4	6	4,4	30	-	11	16,5	8	-	-	8	2	2	1,2
K1859.163211011	A	double-acting	16	32	73	6,4	6	4,4	30	-	11	16,5	8	-	-	8	2	2	1,2
K1859.165011011	A	double-acting	16	50	91	6,4	6	4,4	30	24,5	11	16,5	8	-	-	8	2	2	1,2
K1859.201611011	A	double-acting	20	16	61	6,4	7	4,4	30	-	11	16,5	8	-	-	10	3,1	3,1	2
K1859.203211011	A	double-acting	20	32	77	6,4	7	4,4	30	-	11	16,5	8	-	-	10	3,1	3,1	2
K1859.205011011	A	double-acting	20	50	95	6,4	7	4,4	30	24,5	11	16,5	8	-	-	10	3,1	3,1	2
K1859.252011011	A	double-acting	25	20	64	8,6	7	6,4	33	-	11	18	10	-	-	13	4,9	4,9	2,9
K1859.255011011	A	double-acting	25	50	94	8,6	7	6,4	33	26	11	18	10	-	-	13	4,9	4,9	2,9
K1859.322511011	A	double-acting	32	25	75	10,6	10	7,6	38	-	11	22	12	-	-	17	8	8	4,9
K1859.325011011	A	double-acting	32	50	100	10,6	10	7,6	38	27	11	22	12	-	-	17	8	8	4,9
K1859.402511011	A	double-acting	40	25	79	10,6	10	10,6	40	-	11	24	12	-	-	22	12,5	12,6	7,7
K1859.405011011	A	double-acting	40	50	104	10,6	10	10,6	40	27	11	24	12	-	-	22	12,5	12,6	7,7
K1859.160822021	B	single-acting	16	8	56	6,4	6	-	-	-	-	-	-	-	-	8	2	2	-
K1859.162022021	B	single-acting	16	20	91	6,4	6	-	-	-	-	-	-	-	-	8	2	2	-
K1859.200822021	B	single-acting	20	8	61	6,4	7	-	-	-	-	-	-	-	-	10	3,1	3,1	-
K1859.202022021	B	single-acting	20	20	95	6,4	7	-	-	-	-	-	-	-	-	10	3,1	3,1	-
K1859.250822021	B	single-acting	25	8	64	8,6	7	-	-	-	-	-	-	-	-	13	4,9	4,9	-
K1859.252022021	B	single-acting	25	20	94	8,6	7	-	-	-	-	-	-	-	-	13	4,9	4,9	-
K1859.321022021	B	single-acting	32	10	75	10,6	10	-	-	-	-	-	-	-	-	17	8	8	-
K1859.322022021	B	single-acting	32	20	100	10,6	10	-	-	-	-	-	-	-	-	17	8	8	-
K1859.401022021	B	single-acting	40	10	79	10,6	10	-	-	-	-	-	-	-	-	22	12,5	12,6	-
K1859.402022021	B	single-acting	40	20	104	10,6	10	-	-	-	-	-	-	-	-	22	12,5	12,6	-
K1859.161612021	B	double-acting	16	16	56	6,4	6	-	-	-	-	-	-	-	-	8	2	2	1,2
K1859.163212021	B	double-acting	16	32	73	6,4	6	-	-	-	-	-	-	-	-	8	2	2	1,2
K1859.165012021	B	double-acting	16	50	91	6,4	6	-	-	-	-	-	-	-	-	8	2	2	1,2
K1859.201612021	B	double-acting	20	16	61	6,4	7	-	-	-	-	-	-	-	-	10	3,1	3,1	2
K1859.203212021	B	double-acting	20	32	77	6,4	7	-	-	-	-	-	-	-	-	10	3,1	3,1	2
K1859.205012021	B	double-acting	20	50	95	6,4	7	-	-	-	-	-	-	-	-	10	3,1	3,1	2
K1859.252012021	B	double-acting	25	20	64	8,6	7	-	-	-	-	-	-	-	-	13	4,9	4,9	2,9
K1859.255012021	B	double-acting	25	50	94	8,6	7	-	-	-	-	-	-	-	-	13	4,9	4,9	2,9
K1859.322512021	B	double-acting	32	25	75	10,6	10	-	-	-	-	-	-	-	-	17	8	8	4,9
K1859.325012021	B	double-acting	32	50	100	10,6	10	-	-	-	-	-	-	-	-	17	8	8	4,9
K1859.402512021	B	double-acting	40	25	79	10,6	10	-	-	-	-	-	-	-	-	22	12,5	12,6	7,7
K1859.405012021	B	double-acting	40	50	104	10,6	10	-	-	-	-	-	-	-	-	22	12,5	12,6	7,7
K1859.160822031	C	single-acting	16	8	56	-	-	-	30	-	-	-	8	20,5	7	8	2	2	-
K1859.162022031	C	single-acting	16	20	91	-	-	-	30	-	-	-	8	20,5	7	8	2	2	-
K1859.200822031	C	single-acting	20	8	61	-	-	-	30	-	-	-	8	20	7,5	10	3,1	3,1	-
K1859.202022031	C	single-acting	20	20	95	-	-	-	30	-	-	-	8	20	7,5	10	3,1	3,1	-
K1859.250822031	C	single-acting	25	8	64	-	-	-	33	-	-	-	10	21	7,5	13	4,9	4,9	-
K1859.252022031	C	single-acting	25	20	94	-	-	-	33	-	-	-	10	21	7,5	13	4,9	4,9	-
K1859.321022031	C	single-acting	32	10	75	-	-	-	38	-	-	-	12	25	10	17	8	8	-
K1859.322022031	C	single-acting	32	20	100	-	-	-	38	-	-	-	12	25	10	17	8	8	-
K1859.401022031	C	single-acting	40	10	79	-	-	-	40	-	-	-	12	27	10	22	12,5	12,6	-
K1859.402022031	C	single-acting	40	20	104	-	-	-	40	-	-	-	12	27	10	22	12,5	12,6	-
K1859.161612031	C	double-acting	16	16	56	-	-	-	30	-	-	-	8	20,5	7	8	2	2	1,2
K1859.163212031	C	double-acting	16	32	73	-	-	-	30	-	-	-	8	20,5	7	8	2	2	1,2
K1859.165012031	C	double-acting	16	50	91	-	-	-	30	24,5	-	-	8	20,5	7	8	2	2	1,2
K1859.201612031	C	double-acting	20	16	61	-	-	-	30	-	-	-	8	20	7,5	10	3,1	3,1	2
K1859.203212031	C	double-acting	20	32	77	-	-	-	30	-	-	-	8	20	7,5	10	3,1	3,1	2
K1859.205012031	C	double-acting	20	50	95	-	-	-	30	24,5	-	-	8	20	7,5	10	3,1	3,1	2
K1859.252012031	C	double-acting	25	20	64	-	-	-	33	-	-	-	10	21	7,5	13	4,9	4,9	2,9

## Block cylinders, hydraulic with metal wiper double / single acting with spring return

### Overview of items

Order No.	Form	Form definition	Piston Ø	travel	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	SW	Effective piston area (cm <sup>2</sup> )	Compressive force at 100 bar (kN)	Tractive force at 100 bar (kN)
K1859.255012031	C	double-acting	25	50	94	-	-	-	33	26	-	-	10	21	7,5	13	4,9	4,9	2,9
K1859.322512031	C	double-acting	32	25	75	-	-	-	38	-	-	-	12	25	10	17	8	8	4,9
K1859.325012031	C	double-acting	32	50	100	-	-	-	38	27	-	-	12	25	10	17	8	8	4,9
K1859.402512031	C	double-acting	40	25	79	-	-	-	40	-	-	-	12	27	10	22	12,5	12,6	7,7
K1859.405012031	C	double-acting	40	50	104	-	-	-	40	27	-	-	12	27	10	22	12,5	12,6	7,7