SHORT-STROKE CYLINDERS
SERIES QP - QPR

Series QP: single and double-acting, magnetic
Series QPR: double-acting magnetic, non-rotating
Ø 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm

Series QP - QPR cylinders are available in 10 bore sizes, from Ø 12 to Ø 100.
Their compact dimension allows the installation in small spaces.
Because of their particular construction, they can be mounted by means of feet or trunnion.

The guides are manufactured in the external profile parallel to the sliding axis on three sides.
These are used to locate the switches that sense the piston position.
The non rotating guides make the QPR suitable for supply operations and for handling equipment.

General Data

Type of construction	Series QP: compact profile Series QPR: compact with non rotating guides
Operation	Series QP: single and double-acting Series QPR: double-acting
Materials	Body: anodized AL Rod: rolled stainless steel Piston seals: PU Rod seals: PU (Ø 12 ÷ 25 mm) - NBR (Ø 32 ÷ 100 mm)
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Assembly	By means of screws or brackets
Operating pressure	1 ÷ 10 bar (double-acting); 2 ÷ 10 bar (single-acting)
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.
Strokes (min-max)	Series QP: 1 ÷ 150 mm (Ø12 ÷ Ø25) - 1 ÷ 200 mm (Ø32 ÷ Ø100) Series QPR: 1 ÷ 50 mm (Ø12) - 1 ÷ 75 mm (Ø16) - 1 ÷ 100 mm (Ø20 ÷ Ø100)
Strokes	The minimum stroke for use of the sensors is 10 mm
Bores	Ø 12, 16, 20, 25, 32, 40, 50, 63, 80, 100

Standard strokes for short-stroke cylinders Series QP and QPR

■ = Double-acting
✖ = Single-acting
● = Non-rotating

Ø	5	10	15	20	25	30	3/5	40	45	50	60	75	80	100
12	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖	■ ✖ ●	■ ●	■	■	■					
16	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■	■
20	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
25	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
32	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
40	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
50	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
63	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
80	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
100	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ✖ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●

Coding Examples

QP	2	A	050	A	050

QP	SERIES QP = Standard QPR = Standard non-rotating
2	OPERATION 1 = Single-acting, front spring (only QP) 2 = Double-acting 3 = Double-acting, through-rod
A	MATERIALS A = Rolled stainless steel rod - AL tube profile
050	BORE 012 = 12 mm 016 = 16 mm 020 = 20 mm 025 = 25 mm 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm
A	TYPE OF MOUNTING A = Standard
050	STROKE (See the table)
	SEAL OPTIONS = Standard V = FKM rod seal W = All FKM seals (Ø12 excepted)
	CERTIFICATIONS = Standard EX = ATEX

PNEUMATIC SYMBOLS
CS09
CD07 (Only for version QP) - CD27 (Only for version QPR)
CD14 (Only for version QP) - CD28 (Only for version QPR)

Pneumatic symbols

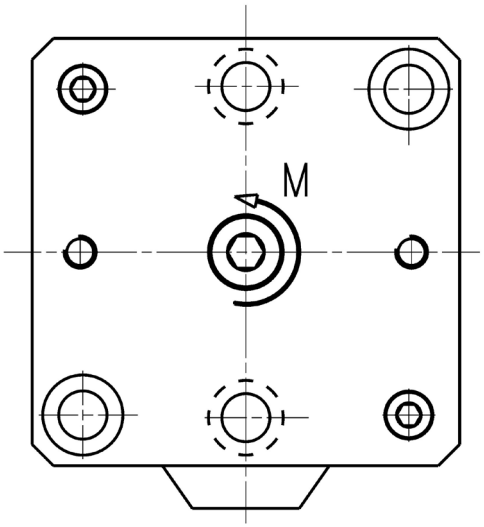
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.

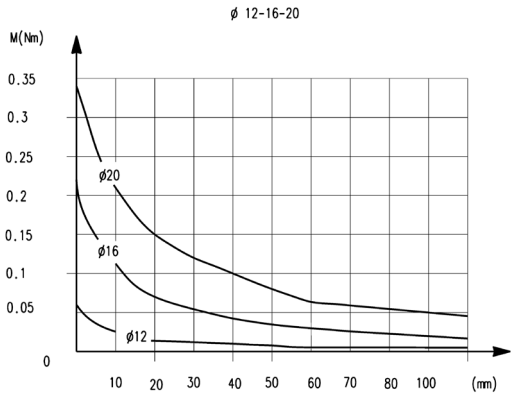
Accessories for short-stroke cylinders Series QP

Foot mount Mod. B

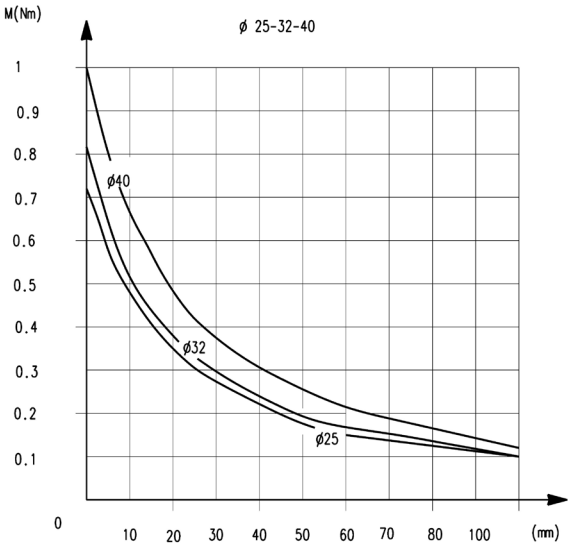
All accessories are supplied separately.

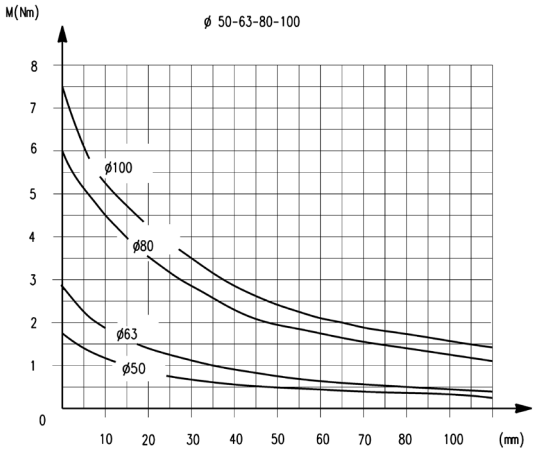
Torque moment according to stroke C



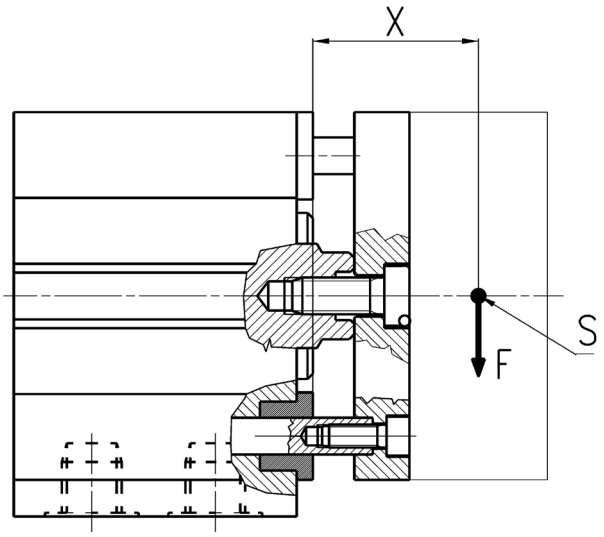


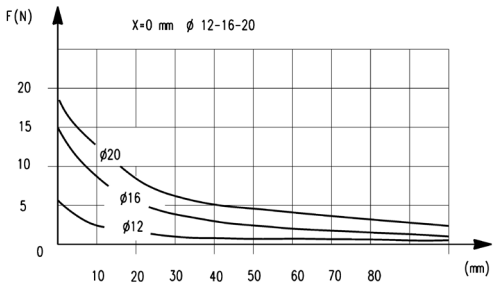
Torque moment according to stroke C



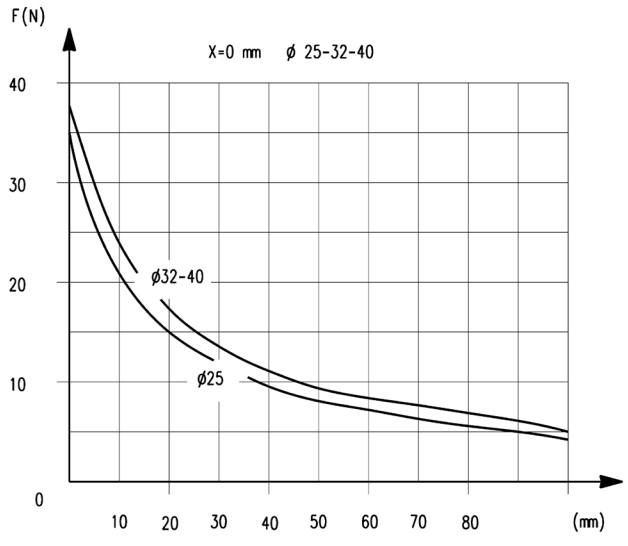


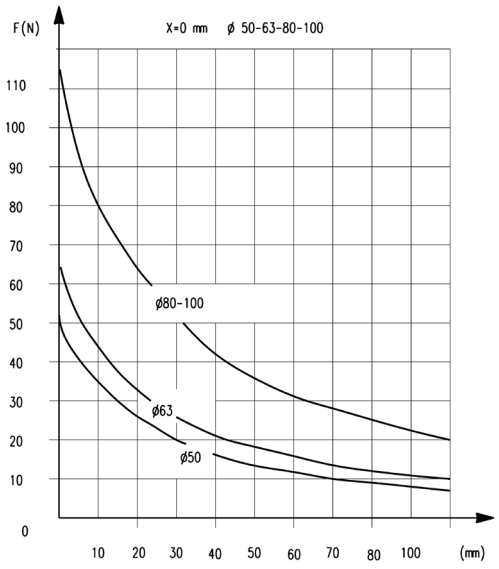
Transversal load according to projection "X"





Transversal load according to projection "X"

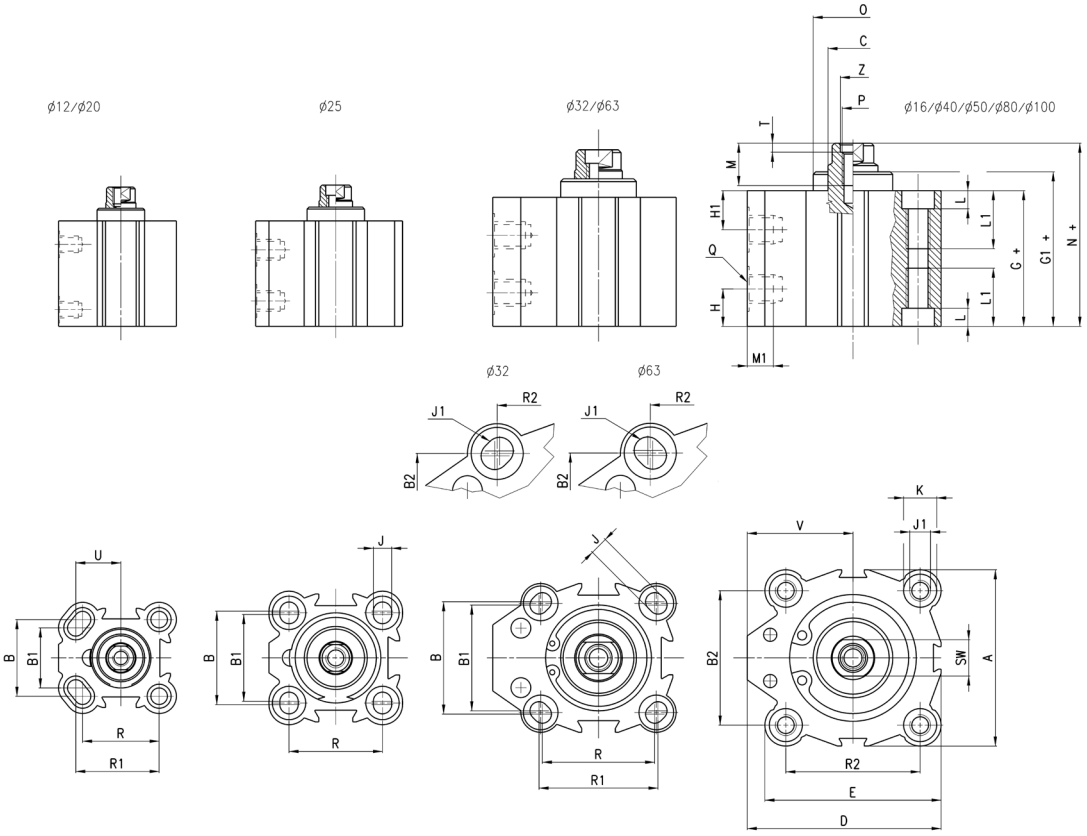




F = transversal force

Short-stroke cylinders Series QP

Note:
The cylinder's end stop must be provided externally.
For single-acting cylinders Ø 12, 16, 20 and 25 add 5 mm to G+, G1+ and N+ dimensions.

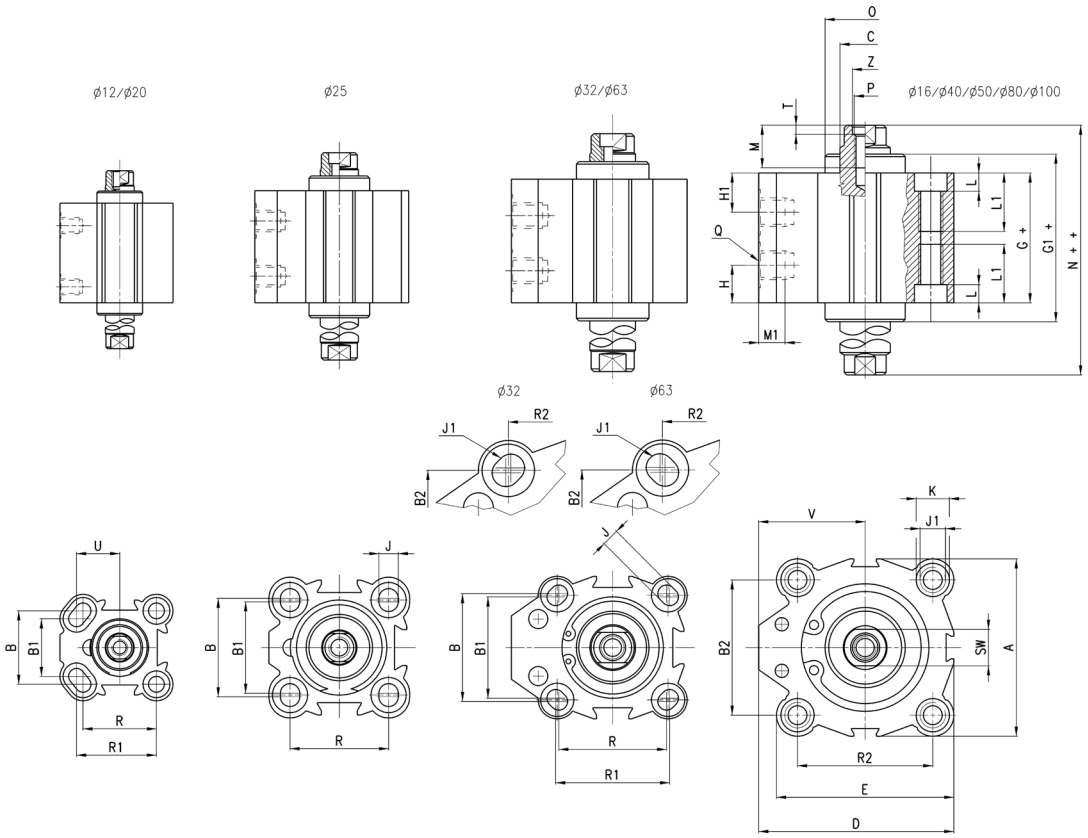


+ = add the stroke

Ø	A	B	B1	B2	øC	D	E	G +	G1 +	H1	H	J	J1	K	L	L1	M	M1	N +	øO	P	Q	R	R1	R2	SW	T	U	V	Z
12	23,8	15,5	13	-	6	25	25	29,6	29,6	12,3	7,8	3,5	-	5,8	3	-	5,5	4,5	32,9	-	M3	M5	15,5	16,75	-	5	-	9	13,15	-
16	29	20	-	-	8	29	29	32	32,4	10,9	8,7	3,5	-	5,8	3	-	8	4,5	36,4	16,6	M4	M5	20	-	-	6	-	-	14,5	-
20	37	25,5	20	-	10	39,25	39,25	31,2	31,7	9,8	9,8	5,5	-	9	6	-	8	4,5	36	19,5	M6	M5	25,5	27,75	-	8	-	15	20,75	-
25	40	28	26	-	10	40	40	32,1	33,5	8	6,9	5,5	-	10	5,5	-	8	4,5	37,5	22	M6	M5	28	-	-	8	-	-	20	-
32	45	34	32	33	12	55,5	47	39,5	40	9,5	9,5	5,5	M8	10,5	6	21	10	7,5	44	23,5	M6	G1\8	34	36	35	10	2,5	-	32	7
40	52	-	-	40	16	57	52	42,4	43,4	10,7	10,7	5,5	M8	9	6	21	13,5	7,5	47,9	29,6	M8	G1\8	-	-	40	13	3,5	-	31	8,5
50	64	-	-	50	16	72	64	42,2	44	11,2	11,2	6,5	M8	10,5	6	21	13,5	9	48,4	37,5	M8	G1\4	-	-	50	13	3,5	-	40	8,5
63	80	62	60	61	20	88	80	49,5	50,1	13	13	8,5	M12	15	8,5	31,5	13,5	9	54	50	M8	G1\4	60	62	61	17	4	-	48	8,5
80	98	-	-	77	25	104	98	57,5	58,1	16,2	16,2	10,5	M12	17	10,5	31,5	15	10,5	63,5	62	M16	G3\8	-	-	77	22	4	-	55	16,5
100	117	-	-	94	25	123,5	117	68,5	69,1	20,3	20,3	10,5	M12	17	10,5	31,5	15	10,5	74,5	80	M16	G3\8	-	-	94	22	4	-	65	16,5

Short-stroke cylinders Series QP

Note:
The cylinder's end stop must be provided externally.

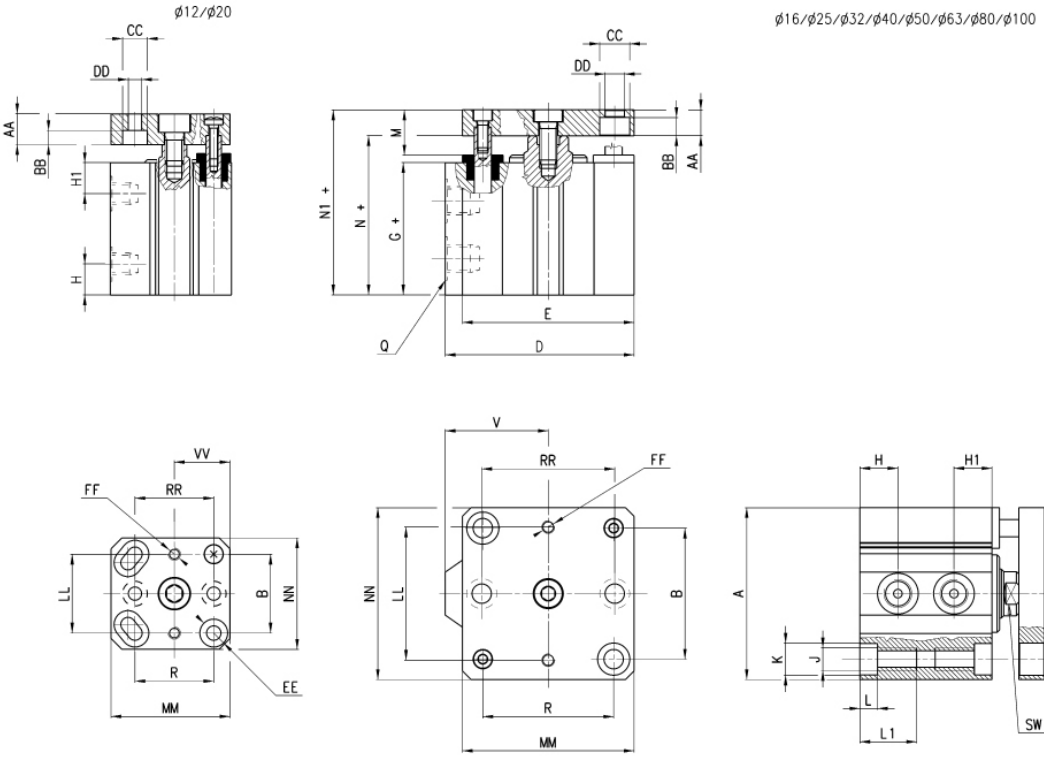


+ = add the stroke once
+ = add the stroke twice

Ø	A	B	B1	B2	øC(h8)	D	E	G +	G1 +	H1	H	J	J1	K	L	L1	M	M1	N ++	øO	P	Q	R	R1	R2	SW	T	U	V	Z
12	23,8	15,5	13	-	6	25	25	34,5	34,5	12,3	12,3	3,5	-	5,8	3	-	5,5	4,5	41	-	M3	M5	15,5	16,75	-	5	-	9	13,15	-
16	29	20	-	-	8	29	29	38	38,8	10,9	10,9	3,5	-	5,8	3	-	8	4,5	46,4	16,6	M4	M5	20	-	-	6	-	-	14,5	-
20	37	25,5	20	-	10	39,25	39,25	38,1	39,1	9,8	9,8	5,5	-	9	6	-	8	4,5	47,7	19,5	M6	M5	25,5	27,75	-	8	-	15	20,75	-
25	40	28	26	-	10	40	40	36,3	39,1	8	8	5,5	-	10	5,5	-	8	4,5	47,1	22	M6	M5	28	-	-	8	-	-	20	-
32	45	34	32	33	12	55,5	47	39,5	40,5	9,5	9,5	5,5	M8	10,5	6	21	10	7,5	48,5	23,5	M6	G1\8	34	36	35	10	2,5	-	32	7
40	52	-	-	40	16	57	52	42,4	44,4	10,7	10,7	5,5	M8	9	6	21	13,5	7,5	53,4	29,6	M8	G1\8	-	-	40	13	3,5	-	31	8,5
50	64	-	-	50	16	72	64	42,2	45,8	11,2	11,2	6,5	M8	10,5	6	21	13,5	9	54,8	37,5	M8	G1\4	-	-	50	13	3,5	-	40	8,5
63	80	62	60	61	20	88	80	49,5	50,7	13	13	8,5	M12	15	8,5	31,5	13,5	9	58,5	50	M8	G1\4	60	62	61	17	4	-	48	8,5
80	98	-	-	77	25	104	98	57,5	58,7	16,2	16,2	10,5	M12	17	10,5	31,5	15	10,5	69,5	62	M16	G3\8	-	-	77	22	4	-	55	16,5
100	117	-	-	94	25	123,5	117	68,5	69,7	20,3	20,3	10,5	M12	17	10,5	31,5	15	10,5	80,5	80	M16	G3\8	-	-	94	22	4	-	65	16,5

Short-stroke cylinder Series QPR

Note:
The cylinder's end stop must be provided externally.

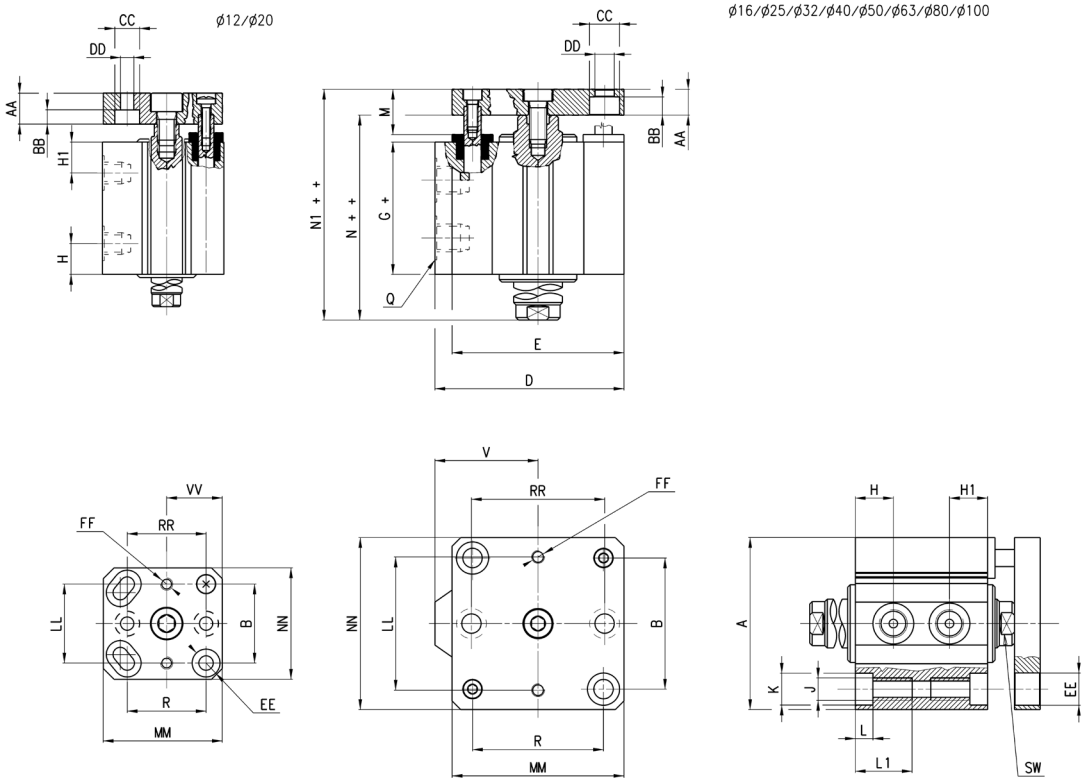


+ = add the stroke

Ø	A	B	D	E	G +	H1	H	J	K	L	L1	N +	N1 +	Q	R	SW	V	AA	BB	ø CC	ø DD	EE	FF	LL	MM	NN	RR	VV
12	23,8	15,5	25	25	29,6	12,3	7,8	3,5	5,8	3	-	32,9	37,9	M5	15,5	5	13,15	5	3,5	6,2	3,2	5,8	M3	15,5	25	24	15,5	12
16	29	20	29	29	32	10,9	8,7	3,5	5,8	3	-	36,4	41,4	M5	20	6	14,5	5	3,5	6,2	3,2	6,5	M3	20	28	28	20	-
20	37	25,5	39,25	39,25	31,2	9,8	9,8	5,5	9	6	-	36	46	M5	25,5	8	20,75	10	4,6	8	4,2	9	M4	25,5	38,5	36	25,5	18
25	40	28	40	40	32,1	8	6,9	5,5	10	5,5	-	37,5	47,5	M5	28	8	20	10	4,6	8	4,2	10	M4	27	40	40	28	-
32	45	33	55,5	47	39,5	9,5	9,5	M8	10,5	6	21	44	54	G1\8	35	10	32	10	6	9	5,5	9	M5	32	47	45	36	-
40	52	40	57	52	42,4	10,7	10,7	M8	9	6	21	47,9	57,9	G1\8	40	13	31	10	6	9	5,5	9	M5	40	52	50	40	-
50	64	50	72	64	42,2	11,2	11,2	M8	10,5	6	21	48,4	60,4	G1\4	50	13	40	12	6,8	10,5	6,5	10	M6	50	65	65	50	-
63	80	61	88	80	49,5	13	13	M12	15	8,5	31,5	54	66	G1\4	61	17	48	12	8,5	14	9	15	M6	62	80	80	62	-
80	98	77	104	98	57,5	16,2	16,2	M12	17	10,5	31,5	63,5	78,5	G3\8	77	22	55	15	10	16,5	11	17	M8	77	100	100	77	-
100	117	94	123,5	117	68,5	20,3	20,3	M12	17	10,5	31,5	74,5	89,5	G3\8	94	22	65	15	10	16,5	11	17	M8	94	115	115	94	-

Short-stroke cylinder Series QPR - through-rod

Note:
The cylinder's end stop must be provided externally.



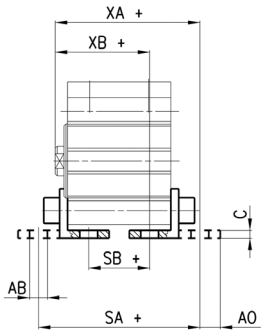
+ = add the stroke once
++ = add the stroke twice

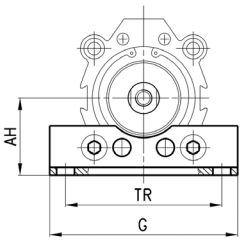
Ø	A	B	D	E	G +	H1	H	J	K	L	L1	N ++	N1 ++	Q	R	SW	V	AA	BB	₀CC	₀DD	EE	FF	LL	MM	NN	RR	VV
12	23,8	15,5	25	25	37,3	12,3	12,3	3,5	5,8	3	-	41	46	M5	15,5	5	13,15	5	3,5	6,2	3,2	5,8	M3	15,5	25	24	15,5	12
16	29	20	29	29	38	10,9	10,9	3,5	5,8	3	-	47	52	M5	20	6	14,5	5	3,5	6,2	3,2	6,5	M3	20	28	28	20	-
20	37	25,5	39,25	39,25	38,1	9,8	9,8	5,5	9	6	-	47,7	57,7	M5	25,5	8	20,75	10	4,6	8	4,2	9	M4	25,5	38,5	36	25,5	18
25	40	28	40	40	36,3	8	8	5,5	10	5,5	-	47,1	57,1	M5	28	8	20	10	4,6	8	4,2	10	M4	27	40	40	28	-
32	45	33	55,5	47	39,5	9,5	9,5	M8	10,5	6	21	48,5	58,5	G1\8	35	10	32	10	6	9	5,5	9	M5	32	47	45	36	-
40	52	40	57	52	42,4	10,7	10,7	M8	9	6	21	53,4	63,4	G1\8	40	13	31	10	6	9	5,5	9	M5	40	52	50	40	-
50	64	50	72	64	42,2	11,2	11,2	M8	10,5	6	21	54,8	66,8	G1\4	50	13	40	12	6,8	10,5	6,5	10	M6	50	65	65	50	-
63	80	61	88	80	49,5	13	13	M12	15	8,5	31,5	58,5	70,5	G1\4	61	17	48	12	8,5	14	9	15	M6	62	80	80	62	-
80	98	77	104	98	57,5	16,2	16,2	M12	17	10,5	31,5	69,5	84,5	G3\8	77	22	55	15	10	16,5	11	17	M8	77	100	100	77	-
100	117	94	123,5	117	68,5	20,3	20,3	M12	17	10,5	31,5	80,5	95,5	G3\8	94	22	65	15	10	16,5	11	17	M8	94	115	115	94	-

Feet bracket Mod. B

Material:
zinc-plated steel

Supplied with:
2x feet
4x screws

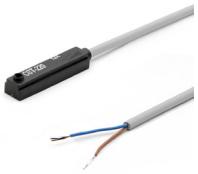


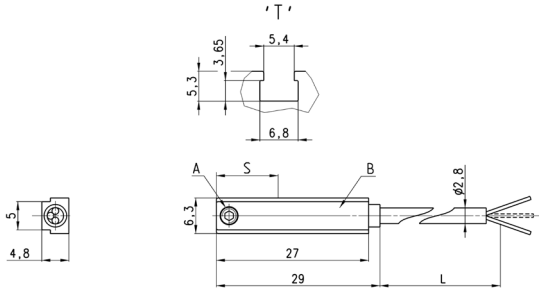


+ = add the stroke

Mod.	Ø	C	SA +	XA +	SB +	XB +	TR	G	AB	AH	AO
B-QP-32	32	3	61,9	55,2	23,1	35,8	57	71	6,6	30	8,8
B-QP-40	40	3	64,8	59,1	26	39,7	64	78	6,6	33	8,8
B-QP-50	50	4	71,6	63,1	20,8	37,7	79	95	9	39	10,3
B-QP-63	63	4	81,9	70,2	25,1	41,8	95	113	11	46	13,8
B-QP-80	80	6	96,5	83	30,5	49	118	140	13	59	10,5
B-QP-100	100	6	114,5	97,5	22,5	51,5	137	162	13	71	17

Magnetic proximity switches with 2 or 3 wire cable for T-slot



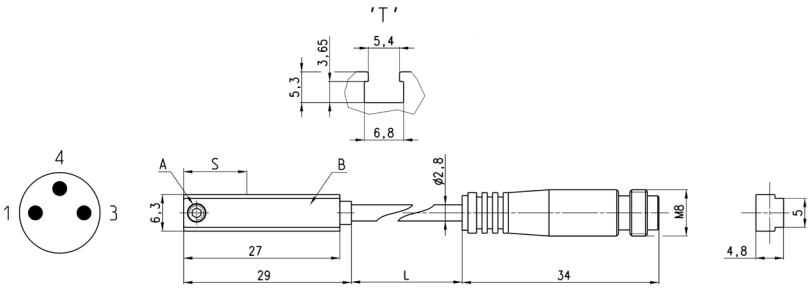


A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CST-220*	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8W	None	2 m	14,5 mm	Yellow
CST-220-5*	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m	14,5 mm	Yellow
CST-220EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8W	None	2 m	14,5 mm	Yellow
CST-220-5EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8W	None	5 m	14,5 mm	Yellow
CST-220-12EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8W	None	12 m	14,5 mm	Yellow
CST-232	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m	14,5 mm	Yellow
CST-232-5	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	5 m	14,5 mm	Yellow
CST-232EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8W	Against polarity reversing	2 m	14,5 mm	Yellow
CST-232-5EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8W	Against polarity reversing and overvoltage	5 m	14,5 mm	Yellow
CST-332	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m	7,5 mm	Yellow
CST-332-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m	7,5 mm	Yellow
CST-332EX	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m	7,5 mm	Yellow
CST-332-5EX	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m	7,5 mm	Yellow
CST-432	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	2 m	14,5 mm	Yellow
CST-432-5	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m	14,5 mm	Yellow
CST-432EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	2 m	14,5 mm	Yellow
CST-432-5EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m	14,5 mm	Yellow
CST-532	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m	8,5 mm	Yellow
CST-532-5	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m	8,5 mm	Yellow
CST-532EX	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m	8,5 mm	Yellow
CST-532-5EX	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m	8,5 mm	Yellow

*Mod. CST-220, CST-220-5:
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.

Magnetic proximity switches with M8 3-pin connector for T-slot

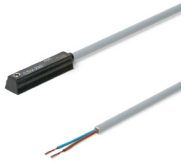


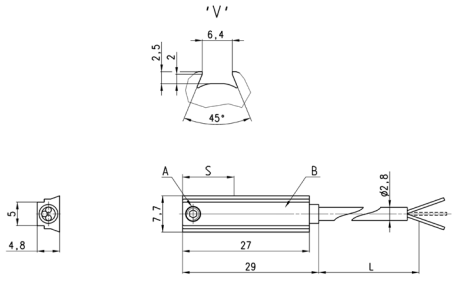
A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CST-250N*	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None	0,3 m	14,5 mm	Yellow
CST-250NEX	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None	0,3 m	14,5 mm	Yellow
CST-262	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	0,3 m	14,5 mm	Yellow
CST-262EX	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	0,3 m	14,5 mm	Yellow
CST-362	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	0,3 m	7,5 mm	Yellow
CST-362EX	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	0,3 m	7,5 mm	Yellow
CST-562	Hall effect	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	0,3 m	8,5 mm	Yellow
CST-562EX	Hall effect	3 wiresM8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	0,3 m	8,5 mm	Yellow

*Mod. CST-250N:
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.

Magnetic proximity switches with 2- or 3-wire cable for V-slot



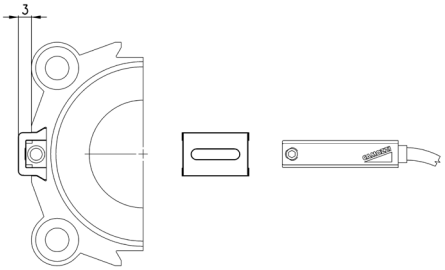


A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CSV-220*	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m	14,5 mm	Yellow
CSV-220-5	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m	14,5 mm	Yellow
CSV-220-5EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m	14,5 mm	Yellow
CSV-232	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m	14,5 mm	Yellow
CSV-332	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m	7,5 mm	Yellow
CSV-332-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m	7,5 mm	Yellow

*Mod. CSV-220:
In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.

Adapters for Series CST-CSG sensors, V-slot



Mod.	Series QP-QPR cylinders	Series 50 cylinders
S-CST-01	Ø 20 ÷ 100	Ø 32 ÷ 80