

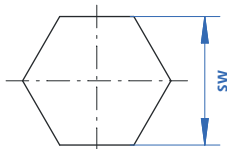
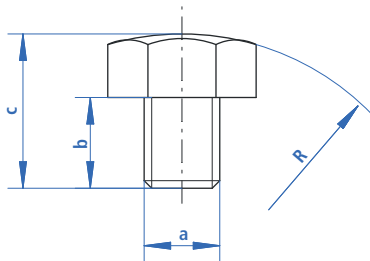


ACCESSORIES

PRESSURE SCREWS

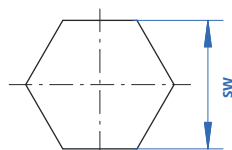
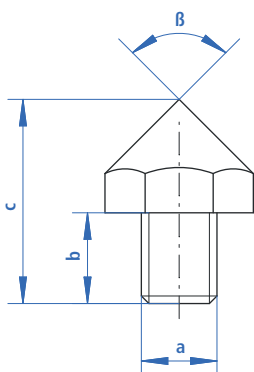
SPHERICAL PRESSURE SCREWS

For pistons with female threads a	b	c	R	sw	Order no.
M6	10	20	20	10	911 - 1 - M06
M8	10	20	20	11	911 - 1 - M08
M10	12	22	35	17	911 - 1 - M10
M12	12	22	45	19	911 - 1 - M12
M16	20	30	60	24	911 - 1 - M16
M20	25	35	60	30	911 - 1 - M20
M27	30	47	100	41	911 - 1 - M27
M30	35	54	100	46	911 - 1 - M30
M42	45	71	140	65	911 - 1 - M42
M48	60	90	250	75	911 - 1 - M48



PRESSURE SCREWS WITH POINTED CONE

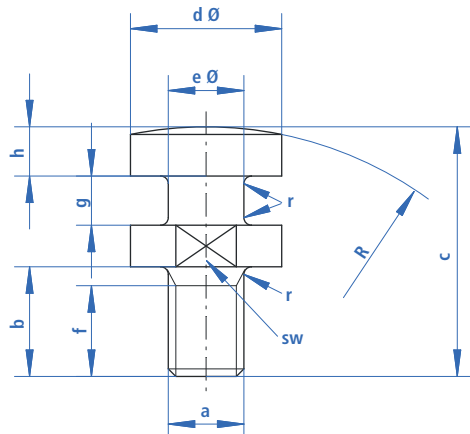
For pistons with female threads a	b	c	β°	sw	Order no.
M6	10	22	90	10	911 - 2 - M06
M8	8	22	90	13	911 - 2 - M08
M10	12	27	90	17	911 - 2 - M10
M12	12	25	120	19	911 - 2 - M12
M16	20	35	120	24	911 - 2 - M16
M20	25	40	120	30	911 - 2 - M20
M27	30	50	120	41	911 - 2 - M27
M30	35	60	120	46	911 - 2 - M30
M42	45	77	120	65	911 - 2 - M42



PRESSURE SCREWS WITH COUPLING JOURNAL

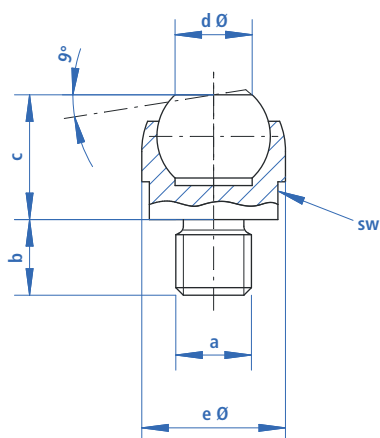
Operating pressure, pulling max 350 bar

For pistons with female threads a	b	c	d Ø	e Ø	f	g	h	r	R	sw	Order no.
M10	15	32	20	10	12	6.5	5.5	1	320	17	911 - 3 - M10
M12	15	32	20	10	12	6.5	5.5	1	320	17	911 - 3 - M12
M16	20	40	25	16	14	7	6	1	400	22	911 - 3 - M16
M20	28	56	32	18	22	10	10	1	500	27	911 - 3 - M20
M27	39	75	40	24	32	13	12	1.5	630	36	911 - 3 - M27
M30	35	89	52	30	25	19	19	2	800	46	911 - 3 - M30



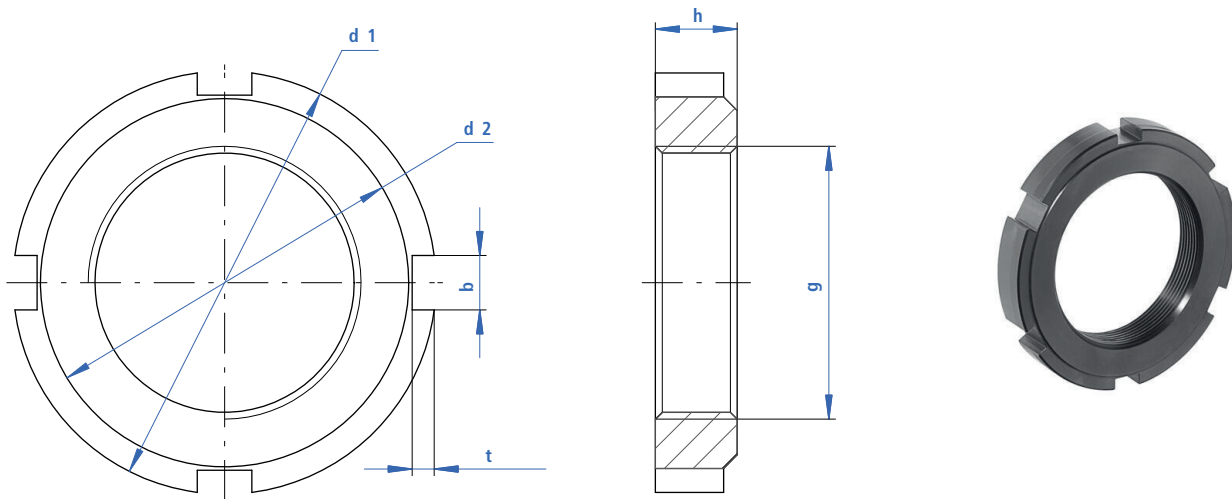
PENDULUM PRESSURE SCREW

For pistons with female threads a	Allowable loading (kN)	b	c	d Ø	e Ø	sw	Order no.
M8	10	8	13	7.2	13	11	911 - 4 - M08
M10	25	10	18	10.5	20	17	911 - 4 - M10
M12	25	12	18	10.5	20	17	911 - 4 - M12
M16	90	16	27	20	30	27	911 - 4 - M16



GROOVED NUTS

Thread g	d1	d2	h	b	t	Order no.
M22 x 1.5	40	34	9	6	2.5	M921 - 1 - 022
M30 x 1.5	50	43	10	7	3	M921 - 1 - 030
M36 x 1.5	58	50	11	8	3.5	M921 - 1 - 036
M40 x 1.5	62	54	12	8	3.5	M921 - 1 - 040
M42 x 1.5	62	54	12	8	3.5	M921 - 1 - 042
M45 x 1.5	68	60	12	8	3.5	M921 - 1 - 045
M50 x 1.5	75	67	13	8	3.5	M921 - 1 - 050
M52 x 1.5	80	70	13	10	4	M921 - 1 - 052
M55 x 1.5	80	70	13	10	4	M921 - 1 - 055
M60 x 1.5	90	80	13	10	4	M921 - 1 - 060
M65 x 1.5	95	85	14	10	4	M921 - 1 - 065
M70 x 1.5	100	90	14	10	4	M921 - 1 - 070
M72 x 1.5	110	100	14	10	4	M921 - 1 - 072
M75 x 1.5	110	100	14	10	4	M921 - 1 - 075
M80 x 1.5	115	105	16	10	4	M921 - 1 - 080
M85 x 1.5	120	110	16	10	4	M921 - 1 - 085
M95 x 1.5	135	120	16	12	5	M921 - 1 - 095
M100 x 1.5	145	130	16	12	5	M921 - 1 - 100
M105 x 1.5	155	140	16	12	5	M921 - 1 - 105



POSITION MONITOR

M930

The position monitor is fastened on the cylinder floor, an actuating cam attached to the through piston rod triggers the function of the proximity switch. By moving the proximity switch in a longitudinal groove of the piston rod, the desired switch positions for messaging of released or clamped position are set.

On request other designs of switches are available in addition to the ones given below.

When using a position monitor the appropriate conditions of use and protective measures must be taken into account and ensured.

NOTICE

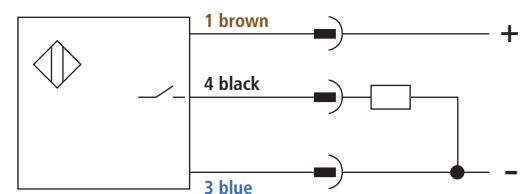
The position monitor is not suitable for use in the coolant area, in case of chips suitable covers must be provided.

TECHNICAL DATA

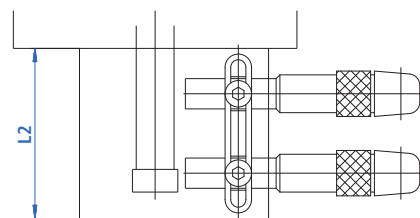
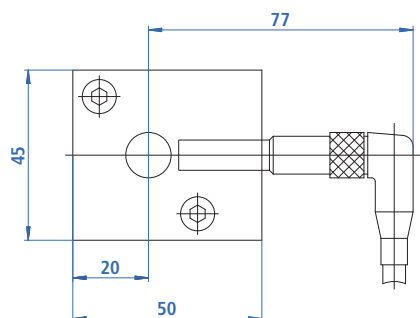
Switching function:	Closing
Output technology:	PNP
Minimum spacing of the switching positions:	13 mm
Ambient temperature:	-25° C to +70° C
Operating voltage:	10 to 30 V DC
Residual ripple:	Max. 15 %
Continuous current:	Max. 200 mA
Nominal switching distance:	1.5 mm
Short circuit test:	Yes
Housing material:	Steel, rust-free
Type of connection:	Plug
Protection class according to DIN 40050:	IP 67

PROXIMITY SWITCH

Connection circuit diagram



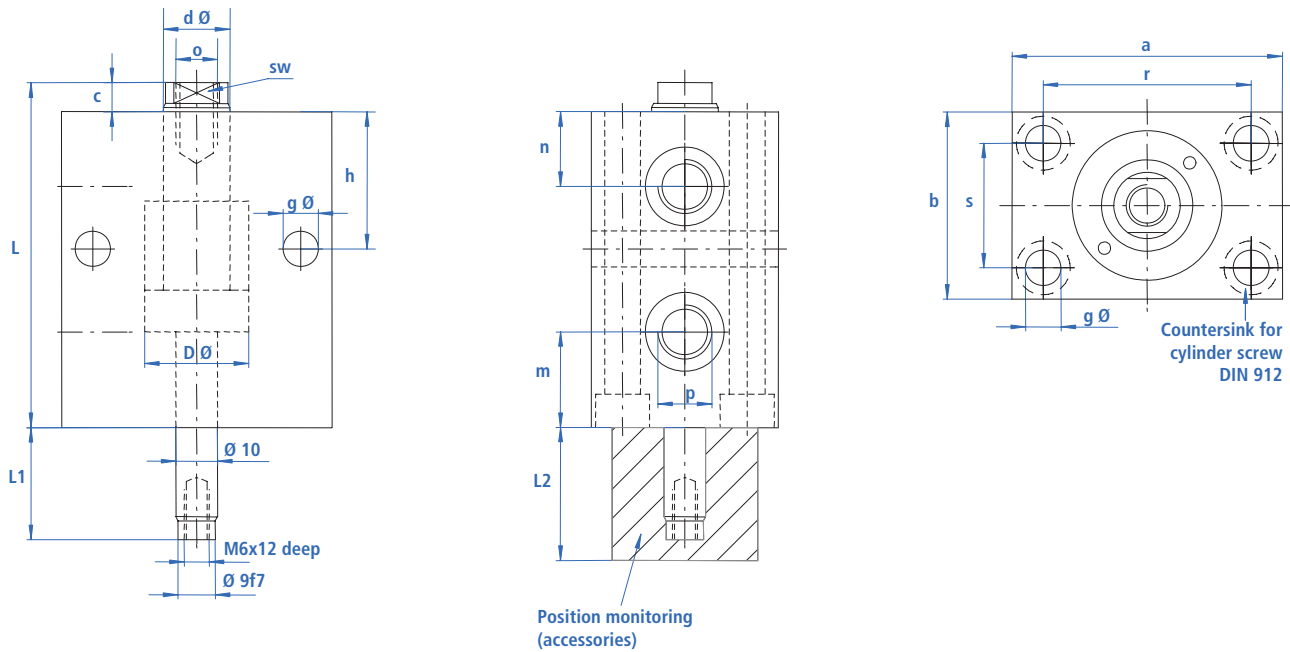
Other proximity switches on request



	Order no.
Proximity switch	M935-1-000
Plug with cable	M935-2-000
Position monitor complete up to 30 mm stroke (L2 = 45 mm)	M930-1-001
Position monitor complete up to 50 mm stroke (L2 = 65 mm)	M930-1-002

POSITION MONITOR

M520



TECHNICAL DATA M520

Pistons Ø D	mm	25	32	40	50	63	80	100	125
Rods Ø D	mm	16	20	25	32	40	50	63	80
Lift	mm	20	25	25	25	30	32	40	40
Compression force (100 bar)	kN	4.1	7.2	11.8	18.9	30.4	49.5	77.8	122
Tensile force (100 bar)	kN	2.9	4.9	7.7	11.6	18.6	30.6	47.4	72.4
a	mm	65	75	85	100	125	160	200	230
b	mm	45	55	63	75	95	120	150	180
c	mm	7	10	10	10	14	14	15	16
Ø g	mm	8.5	10.5	10.5	13	17	21	25	32
h	mm	33	38	40	44	50	60	64	82
L	mm	83	96	100	110	124	134	145	166
L1	mm	27	32	32	32	37	47	47	47
L2	mm	45	45	45	45	45	65	65	65
m	mm	23	22	22	23	25	24	25	31
n	mm	18	22	24	27	26	34	35	47
o x thread depth		M10 x 15	M12 x 15	M16 x 25	M20 x 30	M27 x 40	M30 x 40	M42 x 60	M48 x 70
p		G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4
r	mm	50	55	63	76	95	120	158	180
s	mm	30	35	40	45	65	80	108	130
sw	mm	13	17	22	27	36	46	55	70

ORDER NUMBER OVERVIEW

	M520-1-025	M520-1-032	M520-1-040	M520-1-050	M520-1-063	M520-1-080	M520-1-100	M520-1-125
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CLAMPING ARM

CLAMPING ARM CONE 1:10 STANDARD

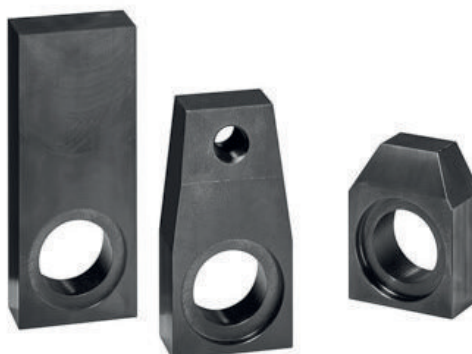
Rods Ø D	Clamping arm length cylinder axis to axis pressure point			Mounting thread pressure piece			Long cylinder axis to outside edge		
	short	medium	long	short	medium	long	short	medium	long
mm	o	o	o	p	p	p	q	q	q
018	–	32	45	–	M8	M8	25	–	–
020	–	45	64	–	M8	M8	32	–	–
025	–	50	75	–	M12	M12	35	–	–
028	–	57	82	–	M12	M12	45	–	–
036	–	65	90	–	M16	M16	44.5	–	–
042	–	70	100	–	M20	M20	50	–	–
	1	2	3	1	2	3	1	2	3

ORDER NUMBER: M901 - Y - XXX - X

CLAMPING ARM CONE 1:10 BLANK

Rods Ø D	Total length			Width			Height			Long cylinder axis to outside edge		
	short	medium	long	short	medium	long	short	medium	long	short	medium	long
mm	a	a	a	b	b	b	c	c	c	q	q	q
018	40	55	68	30	30	30	17	17	17	25	40	53
020	49	72	91	34	34	34	19	19	19	32	55	74
025	55	85	110	40	40	40	23	23	23	35	65	90
028	66	100	122	47	47	47	26	26	26	45	79	101
036	72	108	134	55	55	55	30	30	30	44.5	80.5	106.5
042	85	125	155	70	70	70	33	33	33	50	90	120
	1	2	3	1	2	3	1	2	3	1	2	3

ORDER NUMBER: M522 - Y - XXX - X



CLAMPING ARM CONE 15° STANDARD

Rods Ø D	Clamping arm length cylinder axis to axis pressure point			Mounting thread pressure piece			Long cylinder axis to outside edge		
	short	medium	long	short	medium	long	short	medium	long
mm	o	o	o	p	p	p	q	q	q
018	–	32	45	–	M8	M8	25	–	–
020	–	45	64	–	M8	M8	32	–	–
025	–	50	75	–	M12	M12	35	–	–
028	–	57	82	–	M12	M12	45	–	–
036	–	65	90	–	M16	M16	44.5	–	–
042	–	70	100	–	M20	M20	50	–	–
	1	2	3	1	2	3	1	2	3

ORDER NUMBER: M906 - Y - XXX - X

CLAMPING ARM CONE 15° BLANK

Rods Ø D	Total length			Width			Height			Long cylinder axis to outside edge		
	short	medium	long	short	medium	long	short	medium	long	short	medium	long
mm	a	a	a	b	b	b	c	c	c	q	q	q
018	40	55	68	30	30	30	17	17	17	25	40	53
020	49	72	91	34	34	34	19	19	19	32	55	74
025	55	85	110	40	40	40	23	23	23	35	65	90
028	66	100	122	47	47	47	26	26	26	45	79	101
036	72	108	134	55	55	55	30	30	30	44.5	80.5	106.5
042	85	125	155	70	70	70	33	33	33	50	90	120
	1	2	3	1	2	3	1	2	3	1	2	3

ORDER NUMBER: M906 - Y - XXX - X

