

CYLINDERS

SERIES 42

Single and double-acting, magnetic, cushioned
 Ø 32, 40, 50, 63 mm



- Perfect alignment
- Different mounting options

Series 42 cylinders have been designed without tie rods to assure an extremely clean design. Stainless steel has been used for the tube and the rod, while the end cover is made in anodized Aluminium. These cylinders are normally equipped with adjustable end-stroke cushioning and with a mechanical cushioning in order to make the impact of the piston less noisy as it reaches the end of the stroke.

General Data

Type of construction	Bordato
Operation	A semplice e doppio effetto
Materials	Testate = AL Camicia = Inox AISI 304 Stelo = Inox AISI 420B Altri: vedi codifica
Type of mounting	A flangia anteriore - a flangia posteriore - piedini cerniera anteriore e posteriore - perni filettati - ghiera
Strokes min - max	10 - 1000 mm
Operating temperature	0°C ÷ 80°C (con aria secca -20°C)
Operating pressure	1 ÷ 10 bar (doppio effetto); 2 ÷ 10 bar (semplice effetto)
Speed	10 ÷ 1000 mm/sec (senza carico)
Fluid	Aria filtrata, senza lubrificazione. Nel caso si utilizzasse aria lubrificata, si consiglia olio ISOVG32 e di non interrompere mai la lubrificazione.

CYLINDERS
SERIES 42 - STROKES
STANDARD STROKES FOR DOUBLE-ACTING CYLINDERS SERIES 42

✕ = Double acting
 ■ = Single acting

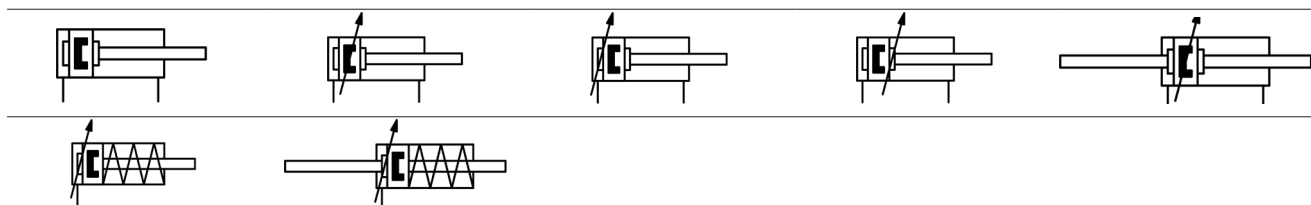
∅	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

Coding Examples

42	M	2	N	050	A	0200
42	SERIES					
M	VERSION M= standard magnetic					
2	OPERATION 1 = single-acting, cushions (front spring) 2 = double-acting, front and rear cushions 3 = double-acting, no cushion 4 = double-acting, rear cushions 5 = double-acting, front cushion 6 = double-acting, through-rod, front and rear cushions 7 = single-acting, through-rod, cushions					PNEUMATIC SYMBOLS CS12 CD09 CD08 CD10 CD11 CD13 CS13
N	MATERIALS N = stainless steel AISI 420B rod - stainless steel AISI 304 tube - NBR seals					
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm					
A	TYPE OF DESIGN A = standard with nose nut Mod. V and piston rod lock nut Mod. U					
0200	STROKE (see the table)					
	ROD LENGTH = Standard (_ _ _) = Rod extended with _ _ _ mm					
	CERTIFICATIONS = Standard EX = ATEX					

Pneumatic symbols

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



Accessories for cylinders Series 42

Nose nut Mod. V



Coupling piece Mod. GKF



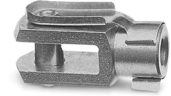
Self aligning rod Mod. GK



Piston rod socket joint Mod. GY



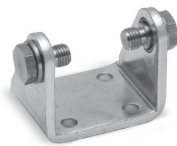
Rod fork end Mod. G



Foot mount Mod. P



Trunnion Mod. I



Swivel ball joint Mod. GA



Brack threaded pins Mod. T



Piston rod lock nut Mod. U



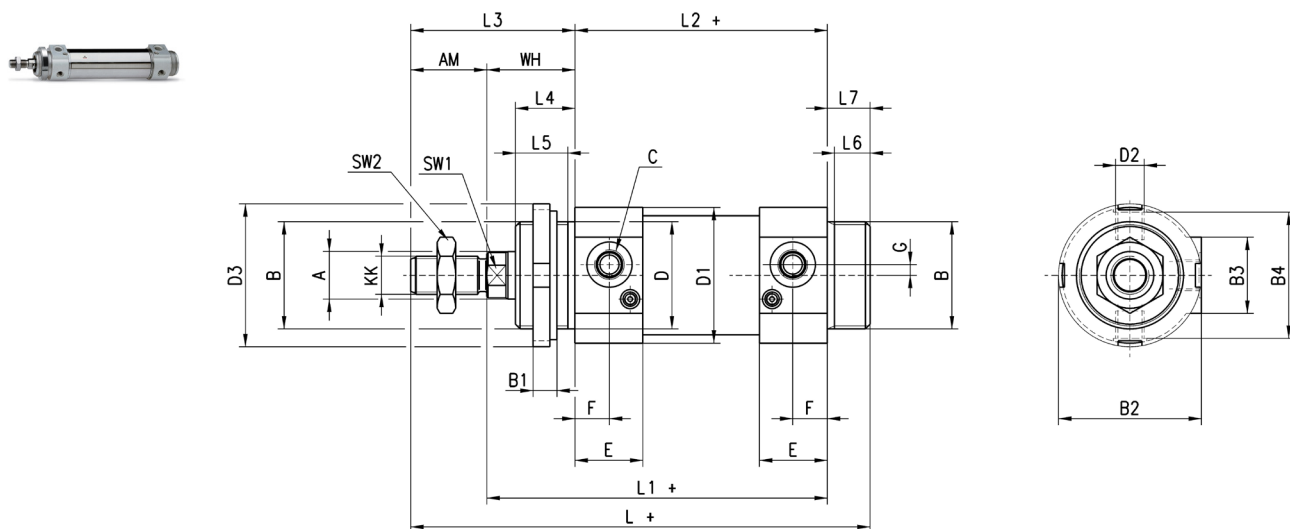
All accessories are supplied separately, except for piston rod lock Mod. U and nose nut Mod. V.

CYLINDERS
SERIES 42 - DIMENSIONS

Cylinders Series 42

PNEUMATIC ACTUATION

1

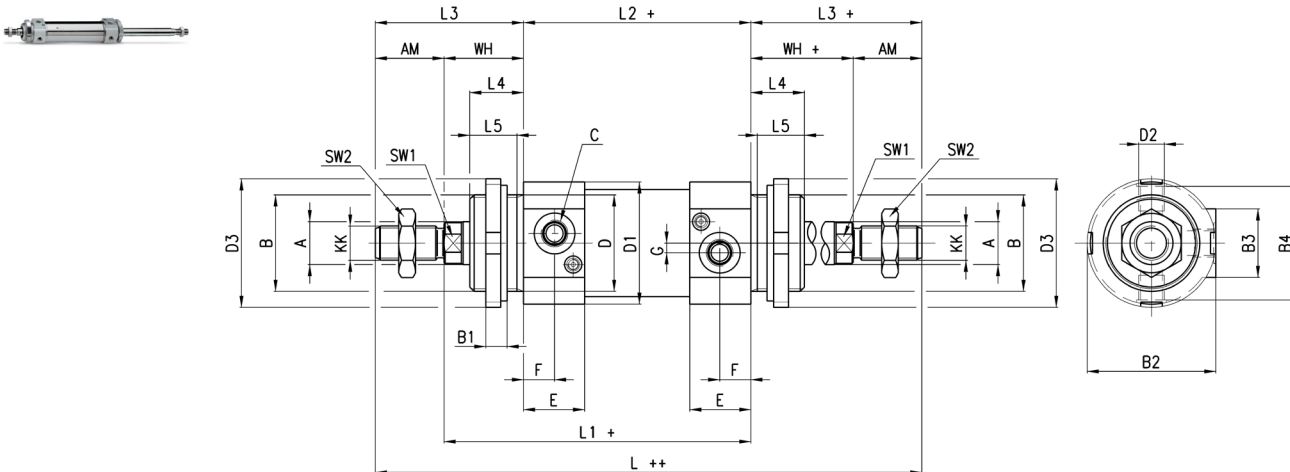


+ = add the stroke

∅	A	KK	B	B1	B2	B3	B4	C	D ^{ast}	D1	D2	D3	E	F	G	SW1	SW2	AM	WH	L+	L1+	L2+	L3	L4	L5	L6	L7	*
32	12	M10x1,25	M30x1,5	8	41,5	28	36	G1\8	30	38	M8x1	42	23,5	10,5	5	10	17	22	26	156	120	94	48	18	15	11	14	17/12
40	16	M12x1,25	M38x1,5	10	50	30	43	G1\4	38	46	M10x1	50	29	15	5	13	19	24	30	175	135	105	54	22	19	13	16	20/17
50	20	M16x1,5	M45x1,5	10	58,5	32	54	G1\4	40	57	M12x1,5	60	28,5	14,5	4,5	17	24	32	37	193	143	106	69	25	22	15	18	15/14
63	20	M16x1,5	M45x1,5	10	70,5	46,5	66	G3\8	45	70	M14x1,5	60	35	15,5	7	17	24	32	37	208	158	121	69	25	22	15	18	17/16

* = front/rear cushion stroke
 Sizes L, L1 and L2 in single-acting cylinders are increased by 25 mm

Cylinders Series 42 - through-rod



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

∅	A	KK	B	B1	B2	B3	B4	C	D	D1	D2	D3	E	F	G	SW1	AM	SW2	WH+	L++	L1+	L2+	L3	L4	L5	*
32	12	M10x1,25	M30x1,5	8	41,5	28	36	G1\8	30	38	M8x1	42	23,5	10,5	5	10	22	17	26	190	120	94	48	18	15	17/12
40	16	M12x1,25	M38x1,5	10	50	30	43	G1\4	38	46	M10x1	50	29	15	5	13	24	19	30	213	135	105	54	22	19	20/17
50	20	M16x1,5	M45x1,5	10	58,5	32	54	G1\4	45	57	M12x1,5	60	28,5	14,5	4,5	17	32	24	37	244	143	106	69	25	22	15/14
63	20	M16x1,5	M45x1,5	10	70,5	46,5	66	G3\8	45	70	M14x1,5	60	35	15,5	7	17	32	24	37	259	158	121	69	25	22	17/16

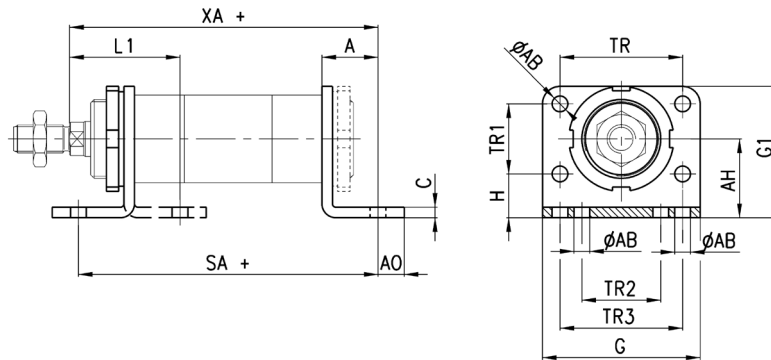
* = front/rear cushion stroke
 Sizes L, L1 and L2 in single-acting cylinders are increased by 25 mm

Foot mount Mod. P



Material:
zinc-plated steel

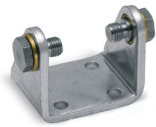
Supplied with:
1x nut
2x single feet



+ = add the stroke

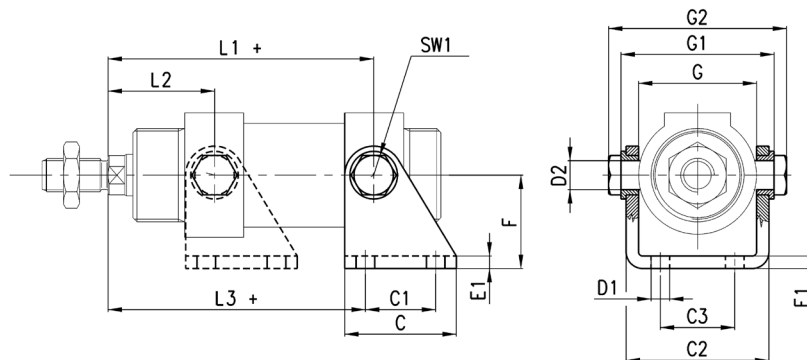
Mod.	Ø	L1	SA +	XA +	A	AB	AO	AH	C	G	G1	TR	TR1	TR2	TR3	H
P-42-32	32	46	142	144	24	7	11	32	4	66	53	52	28	32	52	18
P-42-40	40	53	161	163	28	9	15	36	5	80	61	60	30	36	60	21
P-42-50	50	63	170	175	32	9	15	45	6	90	75	70	40	45	70	25
P-42-63	63	63	185	190	32	9	10	50	6	96	85	76	50	50	76	25

Trunnion Mod. I



Material:
zinc-plated steel

Supplied with:
1x nut
2x single feet



+ = add the stroke

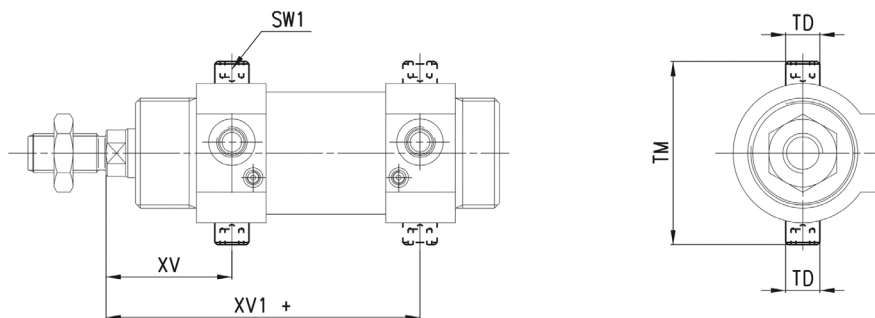
Mod.	Ø	L1 +	L2	L3 +	C	C1	C2	C3	D1	D2	E1	F	SW1	G	G1	G2
I-42-32	32	109,5	36,5	105,5	40	24	46,1	20	7	10	4	35	13	38,1	50,1	58,1
I-42-40	40	120	45	117	50	30	56,1	28	9	12	5	40	17	46,1	60,1	70,1
I-42-50	50	128,5	51,5	124,5	54	34	69,1	36	9	14	6	45	19	57,1	74,1	86,1
I-42-63	63	143	52	142	65	35	82,1	42	9	16	6	50	19	70,1	88,1	100,1

CYLINDERS
SERIES 42 - ACCESSORIES
Threaded trunnion pin Mod. T

PNEUMATIC ACTUATION

1

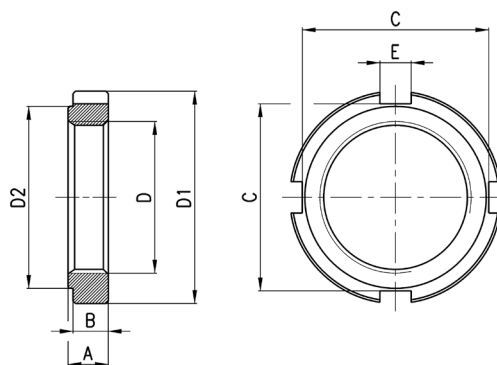
Material:
 stainless steel

 Supplied with:
 2x pins


+ = add the stroke

Mod.	∅	XV	XV1 +	TD	TM	SW1
T-42-32	32	36,5	109,5	10	51	5
T-42-40	40	45	120	12	61	6
T-42-50	50	51,5	128,5	14	75	6
T-42-63	63	52	143	16	90	8

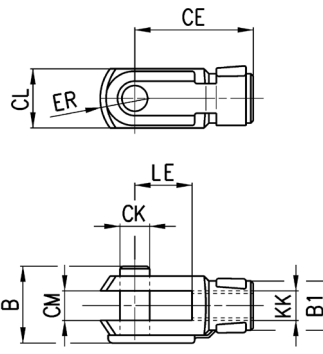
Nose nut Mod. V

Material:
 zinc-plated steel


Mod.	∅	D	D1	D2	A	B	C	E
V-42-32	32	M30x1,5	42	36	8	7	37	6,2
V-42-40	40	M38x1,5	50	48	10	9	44	7,2
V-42-50-63	50-63	M45x1,5	60	56	10	9	53	7,2

Rod fork end Mod. G

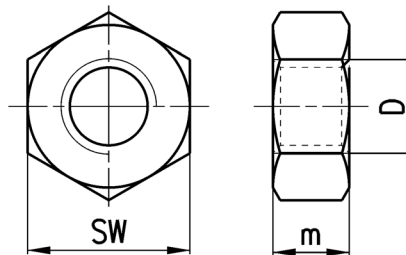

ISO 8140

 Material:
 zinc-plated steel


Mod.	∅	∅ _{CK}	LE	CM	CL	ER	CE	KK	B	∅ _{B1}
G-25-32	32	10	20	10	20	12	40	M10x1,25	26	18
G-40	40	12	24	12	24	14	48	M12x1,25	32	20
G-50-63	50-63	16	32	16	32	19	64	M16x1,5	40	26

Piston rod lock nut Mod. U

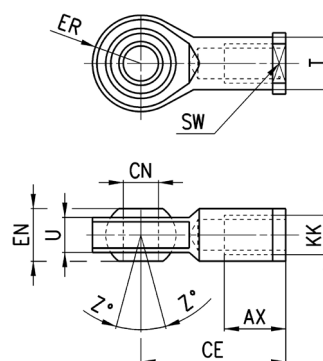

UNI EN ISO 4035

 Material:
 zinc-plated steel


Mod.	∅	D	m	SW
U-25-32	32	M10x1,25	6	17
U-40	40	M12x1,25	7	19
U-50-63	50-63	M16x1,5	8	24

Swivel ball joint Mod. GA


ISO 8139

 Material:
 zinc-plated steel


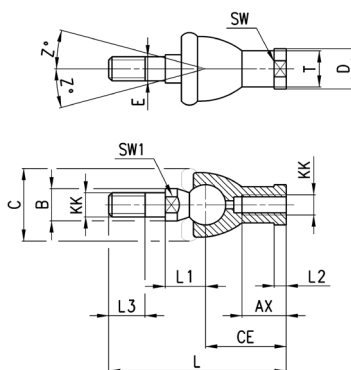
Mod.	∅	∅ _{CN}	U	EN	ER	AX	CE	KK	∅ _T	Z	SW
GA-32	32	10	10,5	14	14	20	43	M10x1,25	15	6,5	17
GA-40	40	12	12	16	16	22	50	M12x1,25	17,5	6,5	19
GA-50-63	50-63	16	15	21	21	28	64	M16x1,5	22	7,5	22

CYLINDERS
SERIES 42 - ACCESSORIES

PNEUMATIC ACTUATION

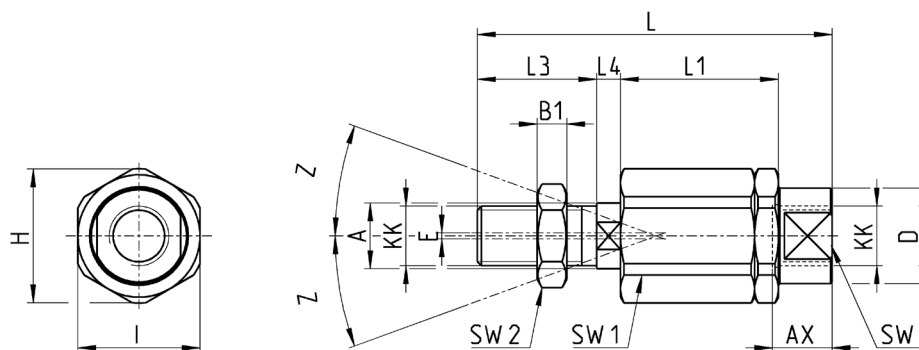
1

Piston rod socket joint Mod. GY

Material:
 zama and zinc-plated steel


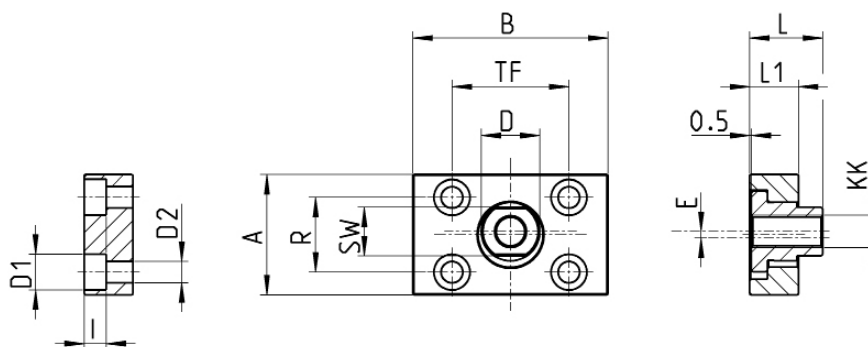
Mod.	∅	KK	L	CE	L2	AX	SW	SW1	L1	L3	$\varnothing T$	$\varnothing D$	E	$\varnothing B$	$\varnothing C$	Z
GY-32	32	M10x1,25	74	35	6,5	18	17	11	19,5	15	15	19	10	14	28	15
GY-40	40	M12x1,25	84	40	6,5	20	19	17	22	17	17,5	22	12	19	32	15
GY-50-63	50-63	M16x1,5	112	50	8	27	22	19	27,5	23	22	27	16	22	40	11

Self aligning rod Mod. GK

Material:
 zinc plated steel


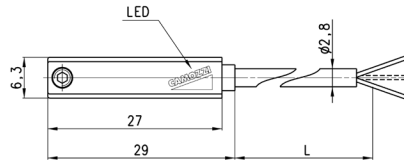
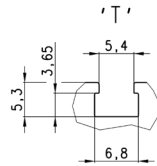
Mod.	∅	KK	L	L1	L3	L4	$\varnothing A$	$\varnothing D$	H	I	SW	SW1	SW2	B1	AX	Z	E
GK-25-32	32	M10x1,25	71,5	35	20	7,5	14	22	32	30	19	12	17	5	22	4	2
GK-40	40	M12x1,25	75,5	35	24	7,5	14	22	32	30	19	12	19	6	22	4	2
GK-50-63	50-63	M16x1,5	104	53	32	10	22	32	45	41	27	20	24	8	30	3	2

Coupling piece Mod. GKF

Material:
 zinc-plated steel


Mod.	∅	KK	A	B	R	TF	L	L1	I	$\varnothing D$	$\varnothing D1$	$\varnothing D2$	SW	E
GKF-25-32	32	M10x1,25	37	60	23	36	22,5	15	6,8	18	11	6,6	15	2
GKF-40	40	M12x1,25	56	60	38	42	22,5	15	9	20	15	9	15	2,5
GKF-50-63	50-63	M16x1,5	80	80	58	58	26,5	15	10,5	25	18	11	22	2,5

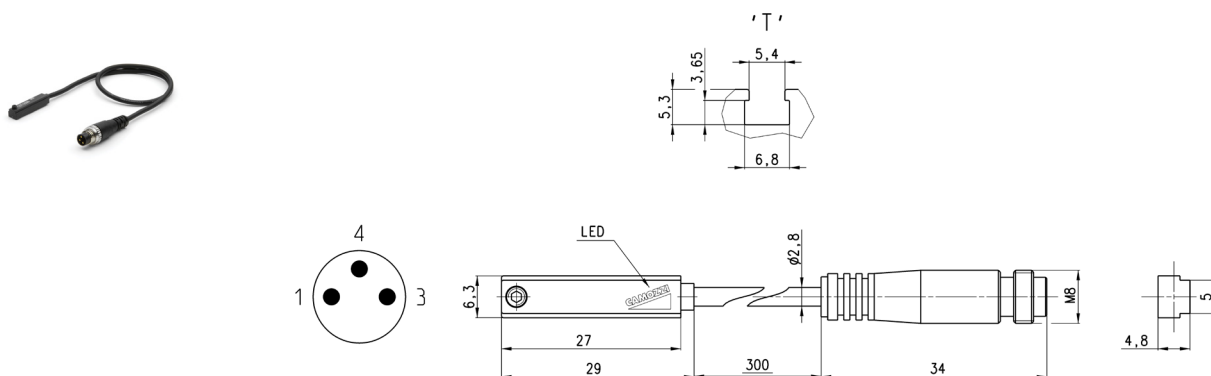
Magnetic proximity switches with 2 or 3 wire cable for T-slot



Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CST-220	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m
CST-220-5	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m
CST-220-12	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	12 m
CST-220EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m
CST-220-5EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m
CST-220-12EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	12 m
CST-232	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-232-5	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CST-232EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-232-5EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	5 m
CST-332	Magneto-resistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m
CST-332-5	Magneto-resistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m
CST-332EX	Magneto-resistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m
CST-332-5EX	Magneto-resistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m
CST-432	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-432-5	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CST-432EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-432-5EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CST-532	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m
CST-532-5	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m
CST-532EX	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m
CST-532-5EX	Hall effect	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	5 m

Note for 2-wire switches 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

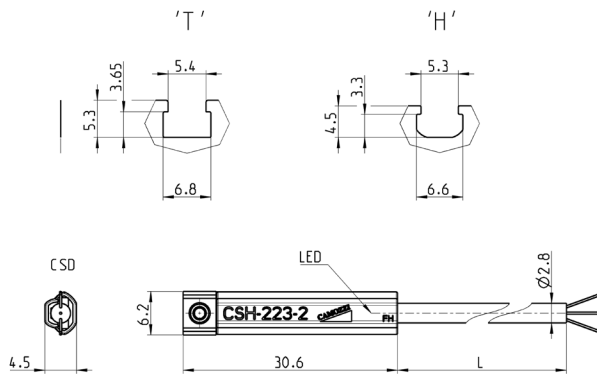


Cable length: 0,3 m

Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection
CST-250N	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None
CST-250NEX	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None
CST-262	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CST-262EX	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CST-362	Magneto resistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-362EX	Magneto resistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-562	Hall effect	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-562EX	Hall effect	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage

Note for 2-wire switch Mod. CST-250N:
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.

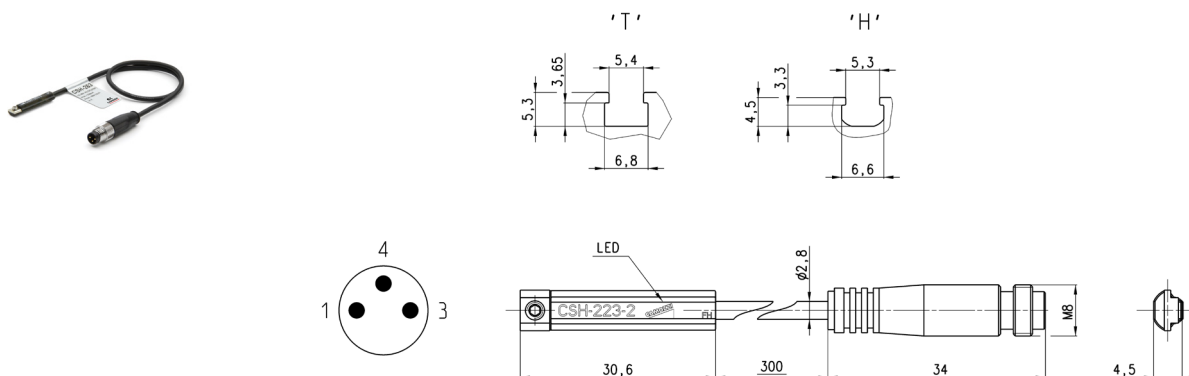
Magnetic proximity switches with 2 or 3 wire cable for H-slot



Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection	L = cable length
CSH-223-2	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-223-5	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-223-10	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	10 m
CSH-223-2EX	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	2 m
CSH-223-5EX	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-223-10EX	Reed	2 wires	10 + 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	10 m
CSH-221-2	Reed	2 wires	30 + 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-221-5	Reed	2 wires	30 + 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-221-2EX	Reed	2 wires	30 + 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-221-5EX	Reed	2 wires	30 + 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-233-2	Reed	3 wires	10 + 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-233-5	Reed	3 wires	10 + 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-233-2EX	Reed	3 wires	10 + 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-233-5EX	Reed	3 wires	10 + 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-334-2	Magnetostrictive	3 wires	10 + 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage	2 m
CSH-334-5	Magnetostrictive	3 wires	10 + 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage	5 m
CSH-334-2EX	Magnetostrictive	3 wires	10 + 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage	2 m
CSH-334-5EX	Magnetostrictive	3 wires	10 + 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage	5 m
CSH-433-2	Reed NC	3 wires	10 + 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-433-5	Reed	3 wires	10 + 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-433-2EX	Reed	3 wires	10 + 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-433-5EX	Reed	3 wires	10 + 30 V AC/DC	PNP-NC	250 mA	10 VA / 8 W	Against polarity reversing	5 m

Note for 2-wire switches Mod. CSH-223-2, CSH-223-5, CSH-221-2, CSH-221-5:
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 H-slot

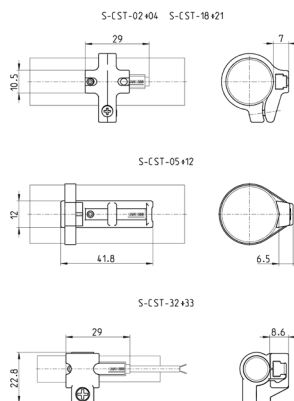


Cable length: 0,3 m

Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection
CSH-253	Reed NO	2 wires M8 male 3 pin	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing
CSH-253EX	Reed NO	2 wires M8 male 3 pin	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing
CSH-263	Reed NO	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-263EX	Reed NO	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-364	Magneto-resistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage
CSH-364EX	Magneto-resistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage
CSH-463	Reed NC	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-463EX	Reed NC	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing

Note for 2-wire switch Mod. CSH-253:
in case of polarity reversing the sensor will still be operating, but LED diode won't turn on.

Adapters for Series CST-CSH-CSG sensors



Mod.	Cylinders Series	Ø
S-CST-18	27, 42	32
S-CST-19	27, 42	40
S-CST-20	27, 42	50
S-CST-21	27, 42	63

Further details can be found in the "Proximity switch" chapter.