



SCORPION

NFPA 1309 Series



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NFPA 1309 series

IMAGE À VENIR

Characteristics

- Standard with Magnetic Piston
- Double Acting Cylinder
- Anodized Aluminium Tubing
- Standard with Cushions
- Optional Stainless steel head screws available
- Stainless Steel Tie Rod
- Standard delivery 2 or 3 days on average
- Production in Granby, Qc, Canada

Specifications

Model	1309 series				
Bore	1 1/2"	2"	2 1/2"	3 1/4"	4"
Port size	NPT 3/8			NPT 1/2	
Fluid	Air				
Operating pressure range	5 to 150 PSI				
Temperature	-5 to 60 C (no freezing)				
Sensor switch (page 10)	1580 series				
Sensor switch bracket (page 11)	1309.A	1309.B		1309.C	

How to order

Create your order number

1309. A . B . C

Choose A-B-C between these options

A= Bore

150 (for 1-1/2")
200 (for 2")
250 (for 2-1/2")
325 (for 3-1/4")
400 (for 4")

B= Stroke

2 First Digits = Inch
2 Last Digits = (Thousandth)

C= Options

01= Standard Version / Male Thread / Magnetic
01X = Standard Version / Male Thread / Magnetic / Stainless Steel rod
01XX = Standard version / Male Thread / Magnetic / Stainless Steel rod and Head Screw
02= Push-Pull Version / Male Thread / Magnetic
02X = Push-Pull Version / Male Thread / Magnetic / Stainless Steel rod
02XX = Push-Pull Version / Male Thread / Magnetic / Stainless Steel rod and Head Screw
OR= Oversize Rod Version / Male Thread / Magnetic
ORX = Oversize Rod Version / Male Thread / Magnetic / Stainless Steel rod
ORXX = Oversize Rod Version / Male Thread / Magnetic / Stainless Steel rod and Head Screw

EXAMPLE: For a Bore 4", Stroke 2-1/2
Order # is 1309.400.0250.01

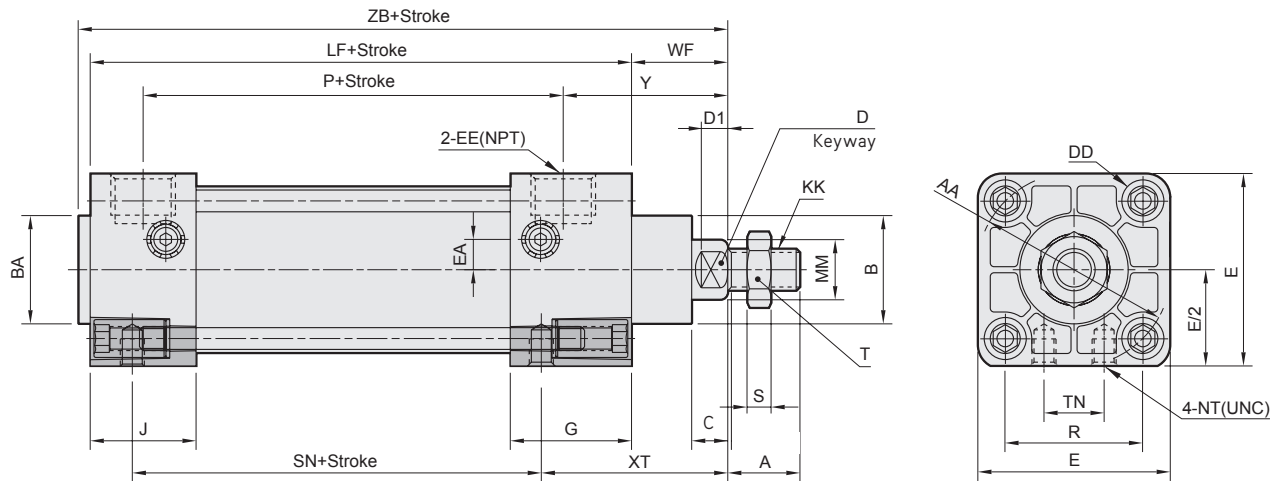
561, Rue Édouard, Granby, QC J2G 3Z5 TEL.: 1-800-665-3595
www.mscorpion.com | www.scorpionmfg.com



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STANDARD VERSION
DIMENSIONS $\varnothing 1\frac{1}{2}" \sim \varnothing 4"$



Dimensions(In) Bore(In)	A	AA	B	BA	C	D	D1	DD	E	EA	EE	G	J	KK	LF	MM	NT	P	R
1-1/2	0.75	2.02	1.125	1.125	0.375	0.56	0.3	1/4-28	2	0.32	3/8	1.26	1.10	7/16-20	3.625	0.625	1/4-20×0.28 dp	2.36	1.43
2	0.75	2.60	1.125	1.125	0.375	0.56	0.3	5/16-24	2.5	0.43	3/8	1.26	1.06	7/16-20	3.625	0.625	5/16-18×0.44 dp	2.40	1.84
2-1/2	0.75	3.10	1.125	1.125	0.375	0.56	0.3	5/16-24	3	0.47	3/8	1.30	1.06	7/16-20	3.75	0.625	3/8-16×0.59 dp	2.48	2.19
3-1/4	1.125	3.90	1.5	1.5	0.5	0.88	0.4	3/8-24	3.75	-	1/2	1.57	1.18	3/4-16	4.25	1	1/2-13×0.63 dp	2.72	2.76
4	1.125	4.70	1.5	1.5	0.5	0.88	0.4	3/8-24	4.5	-	1/2	1.57	1.18	3/4-16	4.25	1	1/2-13×0.63 dp	2.72	3.32

Dimensions (In) Bore (In)	S	SN	T	TN	WF	XT	Y	ZB
1-1/2	0.26	2.25	0.69	0.63	1	1.94	1.71	4.75
2	0.26	2.25	0.69	0.88	1	1.94	1.71	4.75
2-1/2	0.26	2.38	0.69	1.25	1	1.94	1.75	4.88
3-1/4	0.42	2.63	1.12	1.50	1.38	2.44	2.34	5.83
4	0.42	2.63	1.12	2.06	1.38	2.44	2.34	5.83

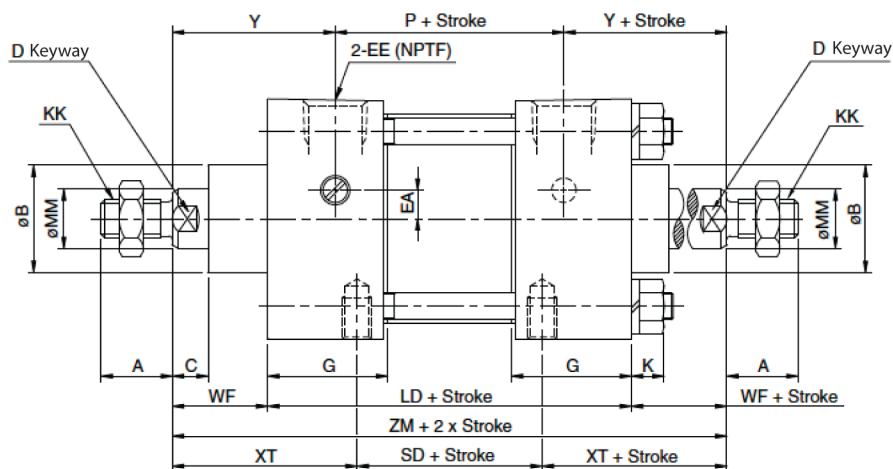
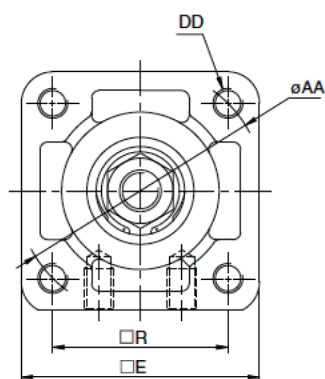
*Larger bore sizes available upon request



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PUSH-PULL VERSION



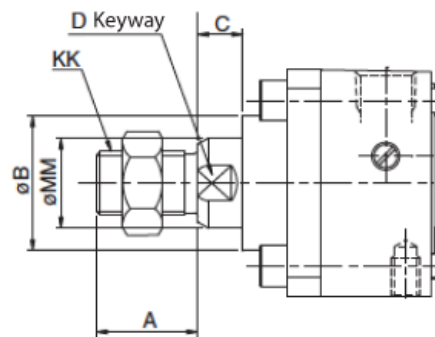
Bore (In)	MM	KK	A	AA	B	C	D	DD	E	EA	EE	G	LD	P	R	WF	Y	ZM	XT	SD
1 -1/2	0.625	7/16-20	0.75	2.02	1.125	0.375	0.56	1/4-28	2	0.32	3/8	1.26	3.78	2.36	1.43	1	1.71	5.78	1.94	1.9
2	0.625	7/16-20	0.75	2.60	1.125	0.375	0.56	5/16-24	2.5	0.43	3/8	1.26	3.82	2.40	1.84	1	1.71	5.82	1.94	1.94
2-1/2	0.625	7/16-20	0.75	3.10	1.125	0.375	0.56	5/16-25	3	0.47	3/8	1.30	3.98	2.48	2.19	1	1.75	5.98	1.94	2.1
3-1/4	1	3/4-16	1.125	3.90	1.5	0.5	0.88	3/8-24	3.75	0	1/2	1.57	4.64	2.72	2.76	1.375	2.34	7.40	2.44	2.52
4	1	3/4-16	1.125	4.70	1.5	0.5	0.88	3/8-24	4.5	0	1/2	1.57	4.64	2.72	3.32	1.375	2.34	7.40	2.44	2.52



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NFPA 1309 series

OVERSIZED ROD VERSION



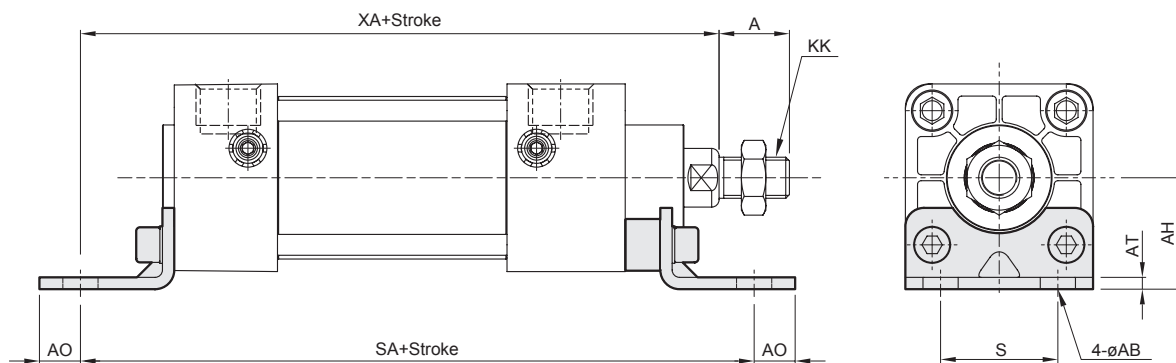
Bore (In)	MM	KK	A	B	C	D
2	1	3/4-16	1.125	1.5	0.5	0.875
2-1/2	1	3/4-16	1.125	1.5	0.5	0.875
3-1/4	1.375	1-14	1.625	2	0.625	1.25
4	1.375	1-14	1.625	2	0.625	1.25

* Special front fixing bracket for oversize rod.

Accessories

Model	05/1F	09/1F	09F-MP1	09F	03F/04F	13F
						

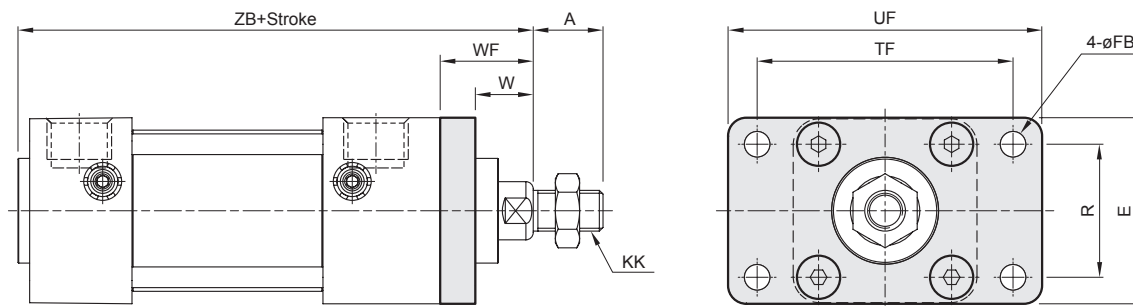
Foot MS1 / Ordering Code: 1309.Ø.05/1F



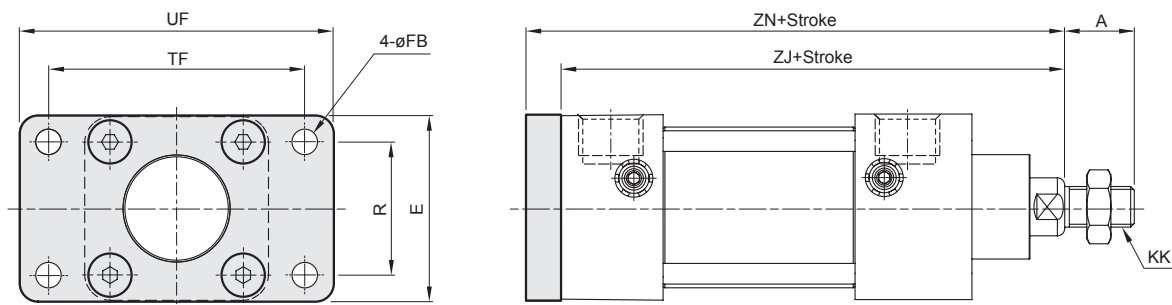
Dimensions (In) Bore (In)	A	AB	AH	AT	AO	KK	S	SA	XA
1-1/2	0.75	0.38	1.19	0.3	0.44	7/16-20	1.25	6	5.63
2	0.75	0.38	1.44	0.13	0.56	7/16-20	1.75	6	5.63
2-1/2	0.75	0.38	1.63	0.13	0.56	7/16-20	2.25	6.13	5.75
3-1/4	1.125	0.5	1.94	0.17	0.75	3/4-16	2.75	7.38	6.88
4	1.125	0.5	2.25	0.23	0.75	3/4-16	3.5	7.38	6.88

* Foot bracket for oversize rod version : Not available

Front flange MF1 / Ordering Code: 1309. Ø. 03F



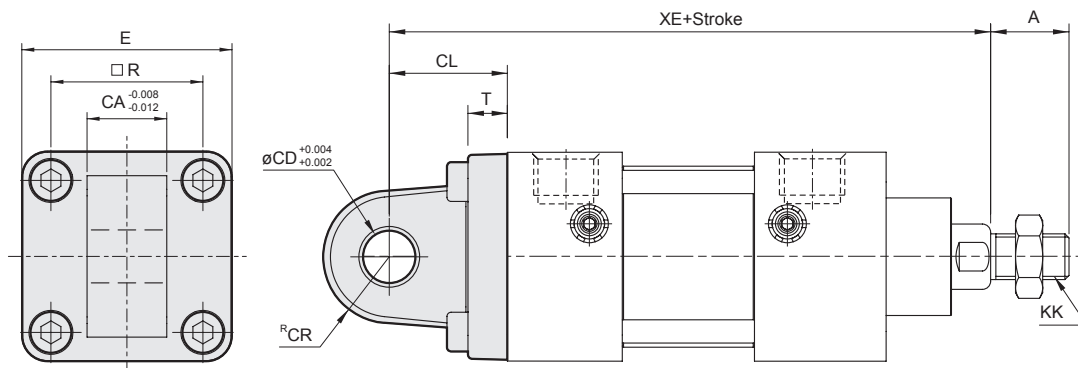
Rear flange / Ordering Code: 1309. Ø. 04F



Dimensions (In) Bore (In)	A	E	FB	KK	R	TF	UF	W	WF	ZB	ZJ	ZN
1-1/2	0.75	2	0.25	7/16-20	1.43	2.75	3.38	0.63	1	4.75	4.63	5
2	0.75	2.5	0.31	7/16-20	1.84	3.38	4.13	0.63	1	4.75	4.63	5
2-1/2	0.75	3	0.31	7/16-20	2.19	3.88	4.63	0.63	1	4.88	4.75	5.13
3-1/4	1.125	3.75	0.38	3/4-16	2.76	4.68	5.50	0.75	1.38	5.83	5.63	6.25
4	1.125	4.5	0.38	3/4-16	3.32	5.44	6.25	0.75	1.38	5.83	5.63	6.25

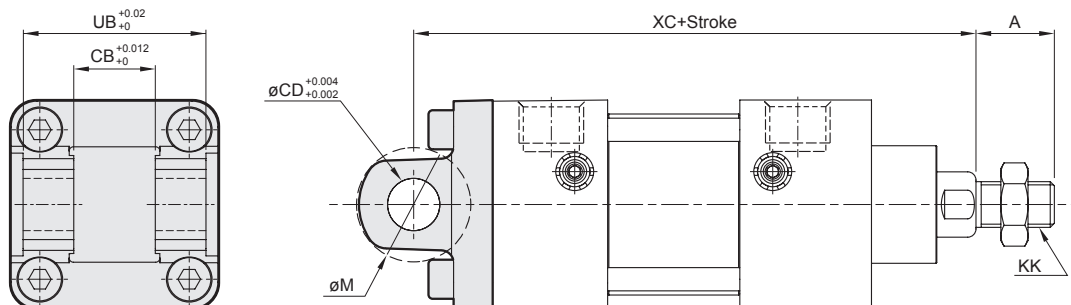
* Front flange for oversize rod version : Available using ordering code 1309. Ø. 03F.OR

Rear male clevis MP4/ Ordering Code: 1309. Ø. 09/1F



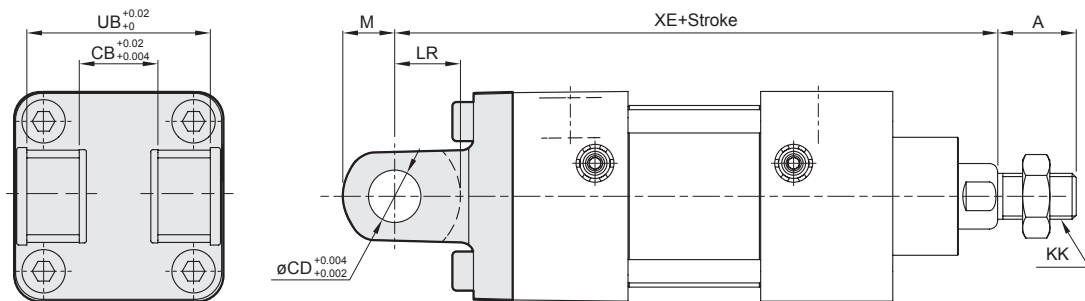
Dimensions (In) Bore (In)	A	CA	CD	CL	CR	E	KK	R	T	XE
1-1/2	0.75	0.75	0.5	1.125	0.63	2	7/16-20	1.43	0.375	5.75
2	0.75	0.75	0.5	1.125	0.63	2.5	7/16-20	1.84	0.375	5.75
2-1/2	0.75	0.75	0.5	1.125	0.63	3	7/16-20	2.19	0.375	5.88
3-1/4	1.125	1.25	0.75	1.875	0.87	3.75	3/4-16	2.76	0.625	7.5
4	1.125	1.25	0.75	1.875	0.87	4.5	3/4-16	3.32	0.625	7.5

Double Rear male MP1 / Ordering Code: 1309. Ø. 09F



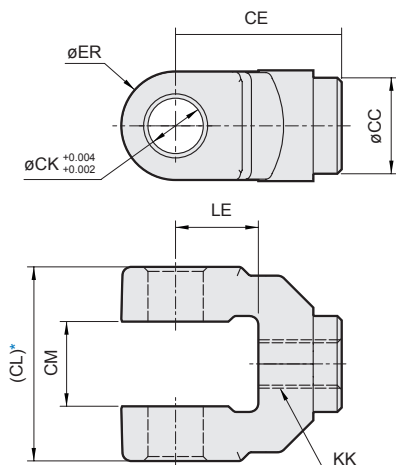
Dimensions (In) Bore (In)	A	CB	CD	KK	M	UB	XC
1-1/2	0.75	0.78	0.5	7/16-20	1.24	1.75	5.38
2	0.75	0.78	0.5	7/16-20	1.24	1.75	5.38
2-1/2	0.75	0.78	0.5	7/16-20	1.24	1.75	5.50
3-1/4	1.125	1.28	0.75	3/4-16	1.88	2.5	6.88
4	1.125	1.28	0.75	3/4-16	1.88	2.5	6.88

Double Rear clevis MP2 / Ordering Code: 1309.Ø.09F



Dimensions (In) Bore (In)	A	CB	CD	KK	LR	M	UB	XE
1-1/2	0.75	0.75	0.5	7/16-20	0.63	0.5	1.75	5.75
2	0.75	0.75	0.5	7/16-20	0.63	0.5	1.75	5.75
2-1/2	0.75	0.75	0.5	7/16-20	0.63	0.5	1.75	5.88
3-1/4	1.125	1.25	0.75	3/4-16	1	0.75	2.5	7.5
4	1.125	1.25	0.75	3/4-16	1	0.75	2.5	7.5

Fork / Ordering Code: 1309.Ø.13F



Dimensions (In) Bore (In)	CC	CE	CL	CM	CK	ER	KK	LE
1-1/2 to 2-1/2	0.87	1.5	1.75	0.765	0.5	1	7/16-20	0.75
3-1/4 to 4	1.34	2.38	2.5	1.265	0.75	1.5	3/4-16	1.25

NFPA 1309 series

Sensor Switch

Sensor with 2.5m. cable

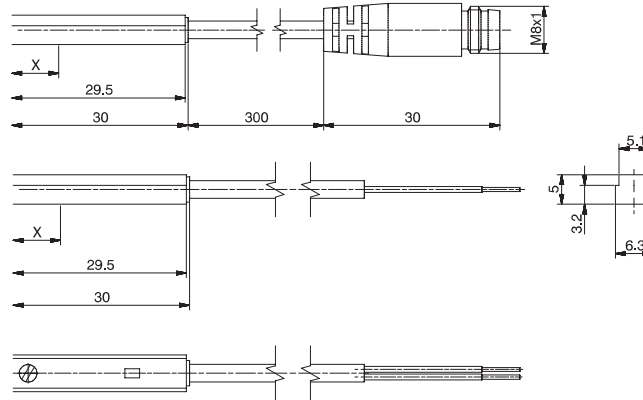


Weight g 27

Sensor with cable and M8 connector



Weight g 15



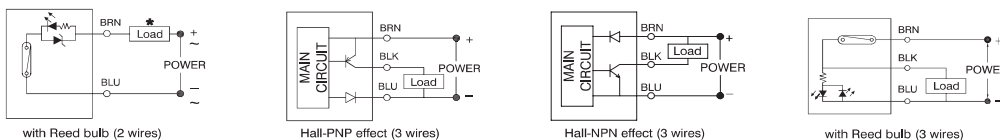
Reed sensors, with led, Universal, N.O. (Normally open)

Ordering Code	Description	X = point of communication (mm)
1580.U	(2 wires) cable 2.5 mt.	15
MRS.U	(2 wires) cable 300 mm, M8 connector (use MC1 or MC2 connectors)	15
1580.UAP	PNP (3 wires) cable 2.5 mt.	15
MRS.UAP	PNP (3wires) cable 300 mm, M8 connector (use MCH1 or MCH2 connectors)	15

Hall effect sensors, with led, D.C, N.O. (Normally open)

Ordering Code	Description	X = point of communication (mm)
1580.HAP	PNP (3 wires) cable 2.5 mt.	8
1580. HAN	NPN (3 wires) cable 2.5 mt.	8
MHS.P	PNP (3 wires) cable 300mm, M8 connector (use MCH1 or MCH2 connectors)	8

Diagrams and connections



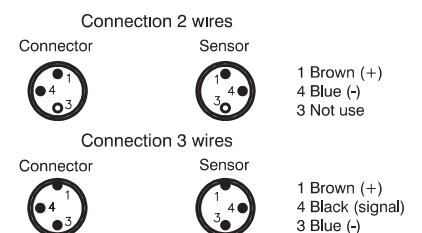
* The load (LOAD) can be connected either to negative or positive pole

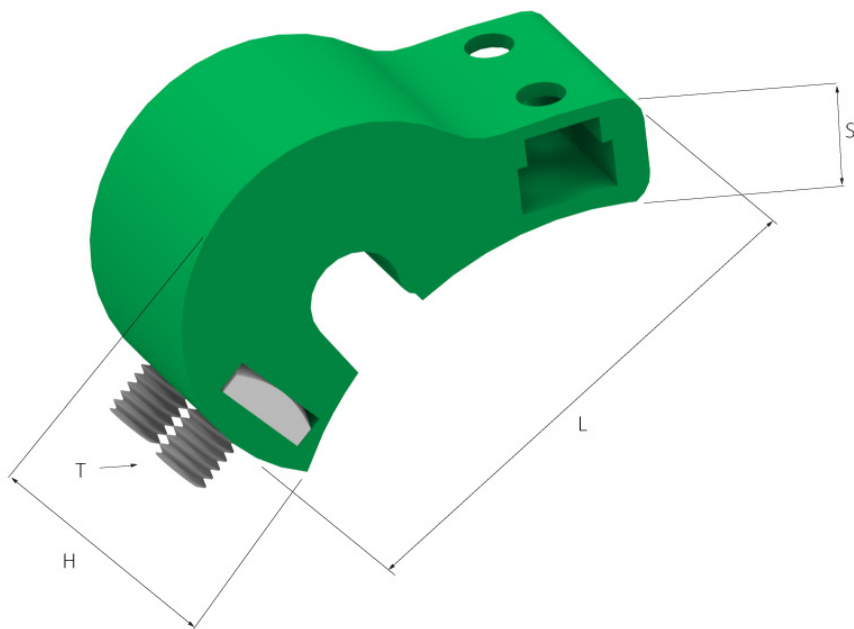
Technical characteristics	1580.U	MRS.U	1580.UAP	MRS.UAP	1580.HAP	1580.HAN	MHS.P
Type of contact	N.O.						
Output type	PNP					NPN	PNP
Maximum current	100 mA						
Maximum permanent power	14 VA - 10W		4 VA- 3W			3W	
Voltage range	5-230 V DC/AC	5-30V DC/AC	10-30 V DC/AC			10-30 V DC	
Working temperature	- 10 C to 70 C						
Maximum voltage drop	3.5 V		0 V **			2V	
Cable section (mm)	2 x 0.14 ø 3.3 mm PUR		3 x 0.14 ø 3.3 mm PUR			3 x 0.14 ø 3.3 mm PUR	
Degree of protection	IP 67						



MC1 cable 2 wires l=2.5m with M8 connector
MC2 cable 2 wires l=5m with M8 connector
MC3 cable 2 wires l=10m with M8 connector

MCH1 cable 3 wires l=2.5m with M8 connector
MCH2 cable 3 wires l=5m with M8 connector
MCH3 cable 3 wires l=10m with M8 connector





Ordering Code	H	L	S	T
1309.A	0.772	1.27	0.295	M4
1309.B	0.872	1.33	0.488	M4
1309.C	0.872	1.33	0.400	M4