

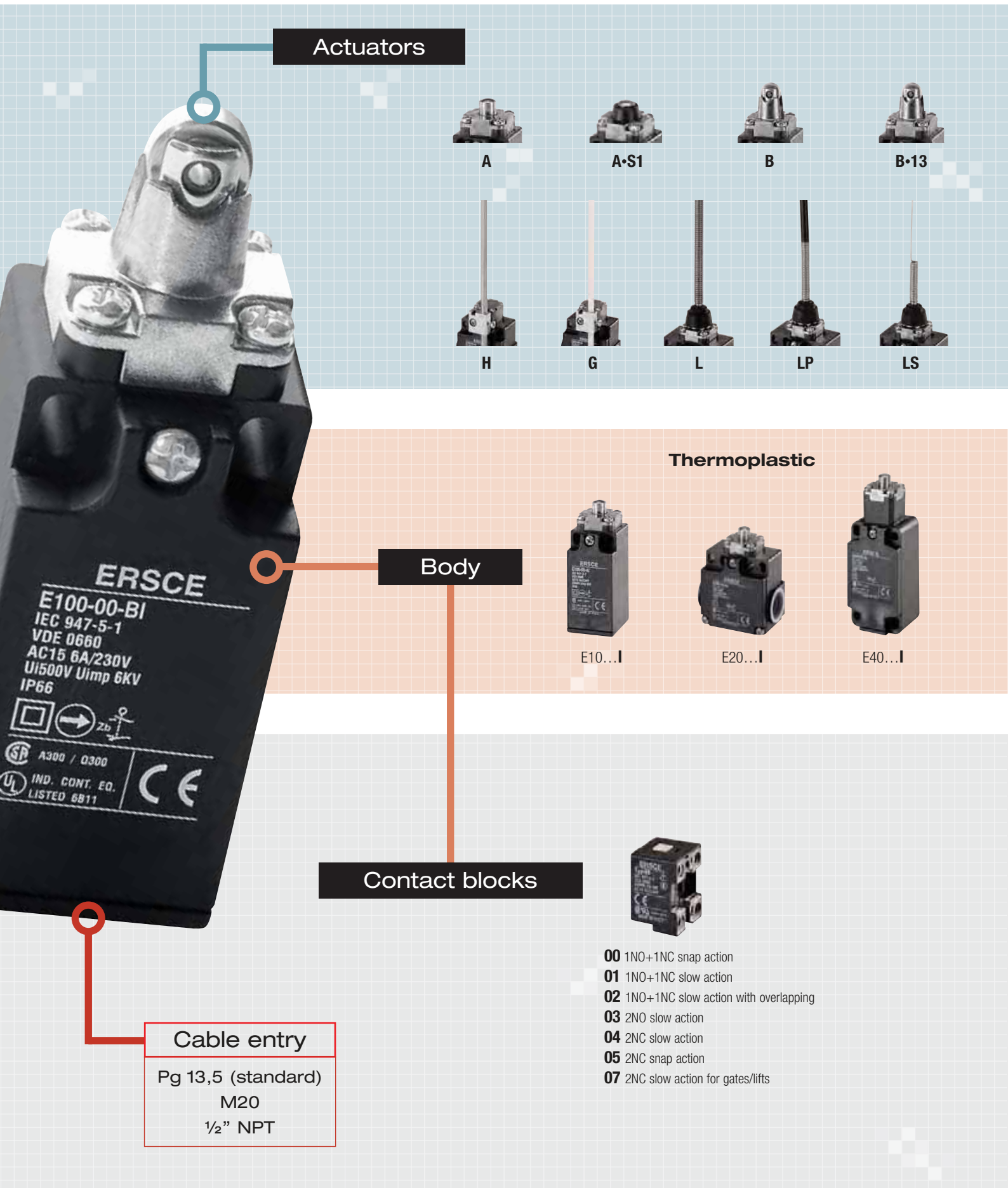


ERSCE
E100-00-B1
IEC 947-5-1
VDE 0660
AC15 6A/230V
UI500V Uimp 6kV
IP66
A308 / 0300
IND. CONT. EQ.
LISTED 6811

ERSCE
E400-00-B1
IEC 947-5-1
VDE 0660
AC15 6A/230V
UI500V Uimp 6kV
IP66
A308 / 0300
IND. CONT. EQ.
LISTED 6811

Limit switches







Metal



Part no. structure

E10 0 00 A I S1

Series

- E100** 1 Cable entry, thermoplastic/metal
- E200** 2 cable entries, thermoplastic
- E300** 3 cable entries, metal
- E400** 1 Cable entry, thermoplastic/metal

Cable entry

- 0** Pg 13,5 (standard)
- 1** M20
- 2** 1/2" NPT

Contact blocks

- 00** 1NO+1NC snap action
- 01** 1NO+1NC slow action
- ...**

Options

- S1** With rubber gasket
- 50** With roller Ø50 mm
- 13** With roller Ø13 mm
- C** For gates/lifts
- 50C** With roller Ø50 mm for gates/lifts
- RA** With steel roller

Body material

- I** Thermoplastic
- M** Metal

Actuator type

- A** Steel plunger
- B** Steel roller plunger
- ...**

Note: Please verify the effective availability of a product before ordering.

General characteristics

The position switches are ERSCE's main product, and are the result of more than 40 years of experience in industrial automation. They are suitable for use in the most different environmental conditions, thanks to their solid construction, IP66 certified, and proven reliability over decades of fieldwork.



- thermoplastic or metal body
- IP66
- contact blocks with positive opening of the NC contact according to IEC EN 60947-5-1 e VDE 0660-200
- form conforming to EN 50047 (E100 series) and to EN 50041 (E400 series))



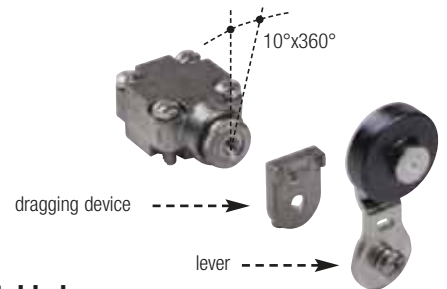
Metal heads

All the heads are made of metal, to ensure maximum performance and lifetime of the switch.



Rotating heads

Possibility to supply, on request, the limit switch lever rotated by 180° steps, and the actuator by 90° steps.



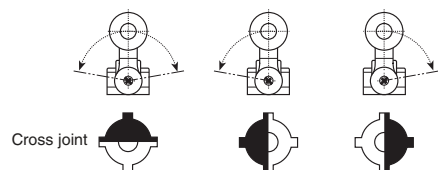
Adjustable levers

Possibility to adjust the lever every 10°, for 360°, by moving the lever and the dragging device.



Overturning levers

Possibility to fasten the lever on the straight or reverse side, maintaining the positive opening of the NC contact.



Unidirectional heads

The lever can be activated to the left or right only or in both directions by adjusting the cross joint.

Technical data

Insulation resistance		500 V DC	MΩ	100	
Dielectric strength		50/60 Hz per 1' *	V AC	2500	
Rated insulation voltage	Ui	IEC947-5-1	V AC	500	
Rated thermal current	Ithe	IEC947-5-1	A	10	
Rated operating current		IEC947-5-1/EN60947-5-1			
Category AC15 A300	Ie	24 V	A	10	
		125 V	A	6	
		230 V	A	6	
		400 V	A	3	
Category DC13 Q300	Ie	24 V	A	6	
		48 V	A	4	
		120 V	A	1	
		250 V	A	0,4	
Contact resistance	IEC255-7 cat.3	initial value	mΩ	25	
Short circuit protective devices	IEC269 (IEC947-5-1)	gl or gG type fuse	A	10	
Rated conditionals short circuit current	IEC947-5-1		A	1000	
Pollution degree	IEC947-5-1			3	
Protection degree	EN 60529			IP66	
Protection against electric shock		plastic	class	II	
		metal	class	I	
Vibration resistance	IEC68-2-6	mm		0,35 ± 15% (10 ÷ 55 Hz ± 1 Hz)	
Shock resistance	IEC68-2-27	11 ms	g	30	
Mechanical life			cycles	15.000.000	
Electrical life	at 250 V AC 6A with resistance load cos φ=1		cycles	500.000	
	at 250 V AC 6A with inductive load cos φ=0,4		cycles	500.000	
Distance between contacts	snap action type		mm	2x1,25	
	low action type		mm	2x2	
Terminals	type			Screw with combined notch and retravtable plate (notch Ph. size 1)	
	screw		M	3,5	
	protection degree			IP20	
	material			Steel class 8,8/ Galvanized	
	max. screw tightening torque		cNm (Kg cm)	120 (12,24)	
	max connecting capacity	rigid cable		mm ²	2x1,5
		flexible cable		mm ²	2x1,5
	with prod terminal			In accordance with EN50013	
Air ambient temperature		operational	°C	-35 ÷ +85 (without formation of ice)	
Relative humidity		operational		95% max	

* between terminals of the same polarity; between terminals with different polarity; between live mechanical parts and ground; between live mechanical parts and non-current-carrying metal parts

Approvals



IEC EN 60947

E100	•	•	+
E200	•	•	+
E300	•	•	+
E400	•	•	+

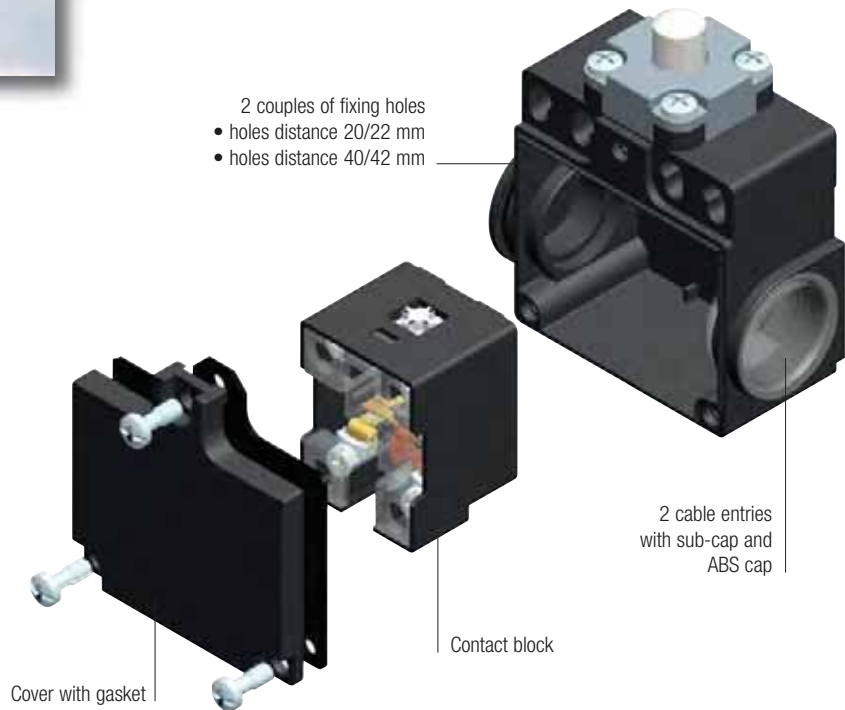
- UL approval file E72861
- CSA approval file 026716-0-000
- Approved
- + Conforms to requirements



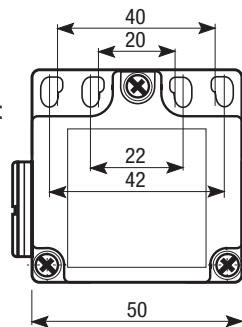
The **E200** series is designed for maximum installation flexibility, it has two different fixing templates to maintain compatibility with both E100 series (fixing holes distance 20-22mm) and E300 series (fixing holes distance 40-42 mm). E200 series provides 2 cable entries on both sides of the switch and is available with metal actuators and thermoplastic body.

In conformity with standards:

IEC EN 60947-5-1 • EN 60947-1 • UNI EN 1088 • EN ISO 12100-1
EN ISO 12100-2 • IEC 529 • EN 60529 • VDE 0660-200 • VDE 0113



Fixing
Double fixing option:
20-22 mm
40-42 mm



Cable entry
2 cable entries on the sides of the switch with thread:



Thread

Pg 13,5
M20 (on request)
1/2" NPT (on request)

Series part no.

E200...
E201...
E202...

A

A•S1



Steel plunger



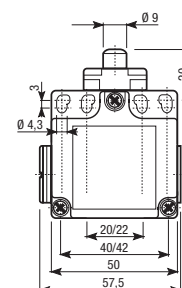
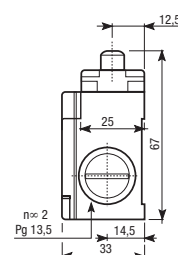
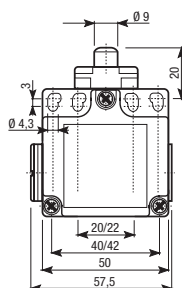
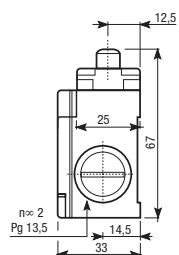
Steel plunger with rubber gasket

Contact block	
1NO+1NC snap action 13 21 14 22 Zb	00
1NO+1NC slow action 21 13 22 14 Zb	01
1NO+1NC slow overlap. 25 17 26 18 Zb	02
2NO slow action 13 23 14 24 X+X	03
2NC slow action 11 21 12 22 Y+Y	04
2NC snap action 11 21 12 22 Y+Y	05
Weight	kg
Pack	pcs
Cable entry	

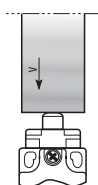
Thermoplastic	Contact travel
E20000AI	
E20001AI	
E20002AI	
E20003AI	
E20004AI	
E20005AI	
0,110	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000AIS1	
E20001AIS1	
E20002AIS1	
E20003AIS1	
E20004AIS1	
E20005AIS1	
0,110	
1	
Pg 13,5	

standard article article on request



Drive cam operating parameters



V max (m/s)	0,5
Min. force (N)	
for tripping	9
for positive opening	28



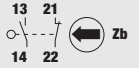
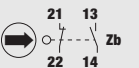
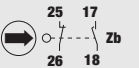
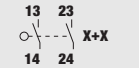
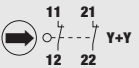
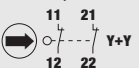
Steel roller plunger

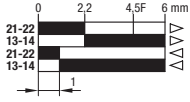
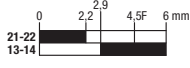
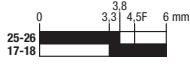
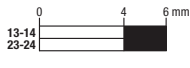
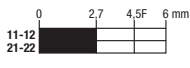

B

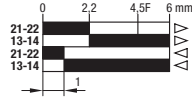
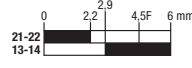
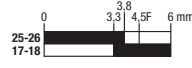
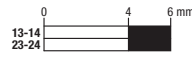
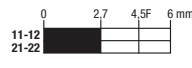
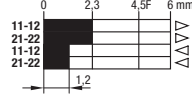


Ø13 mm steel roller plunger

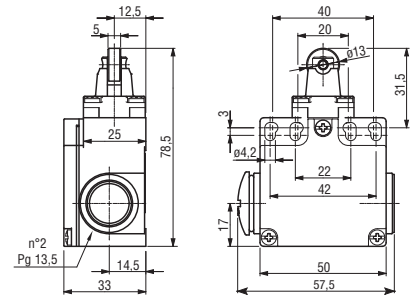
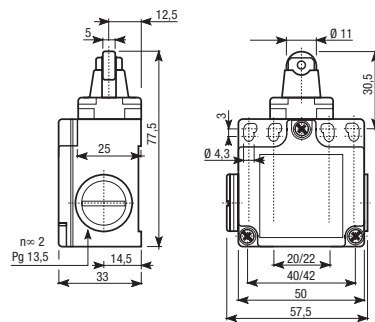
B•13

Contact block		
1NO+1NC snap action 	00	
1NO+1NC slow action 	01	
1NO+1NC slow overlap. 	02	
2NO slow action 	03	
2NC slow action 	04	
2NC snap action 	05	
Weight	kg	
Pack	pcs	
Cable entry		

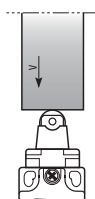
Thermoplastic	Contact travel
E20000BI	
E20001BI	
E20002BI	
E20003BI	
E20004BI	
E20005BI	
0,125	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000BI13	
E20001BI13	
E20002BI13	
E20003BI13	
E20004BI13	
E20005BI13	
0,125	
1	
Pg 13,5	

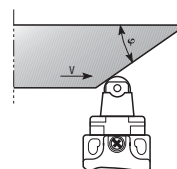
 standard article  article on request



Drive cam operating parameters



V max (m/s)	0,5
Min. force (N)	
for tripping	9
for positive opening	28



φ	V max (m/s)
20°	1
30°	0,5
Min. force (N)	
for tripping	9
for positive opening	28



C

Thermoplastic roller lever, side actuation

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

Thermoplastic	Contact travel
E20000CI	
E20001CI	
E20002CI	
E20003CI	
E20004CI	
E20005CI	
0,130	
1	
Pg 13,5	

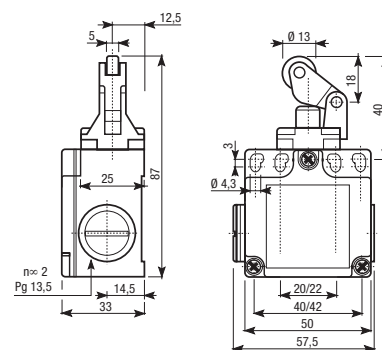
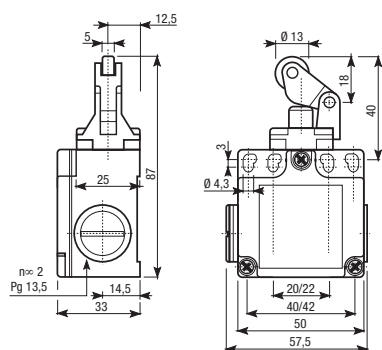


C•S1

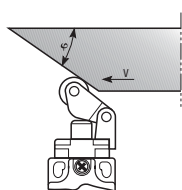
Thermoplastic roller lever with rubber gasket, side actuation

Thermoplastic	Contact travel
E20000CIS1	
E20001CIS1	
E20002CIS1	
E20003CIS1	
E20004CIS1	
E20005CIS1	
0,130	
1	
Pg 13,5	

standard article article on request



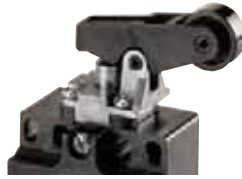
Drive cam operating parameters



φ	V max (m/s)
20°	1
30°	0,5

Min. force (N)	
for tripping	9
for positive opening	26

D



Thermoplastic roller lever, vertical actuation

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	0,130
Pack	pcs	1
Cable entry		Pg 13,5

Thermoplastic	Contact travel
E20000DI	
E20001DI	
E20002DI	
E20003DI	
E20004DI	
E20005DI	
	0,130
	1
	Pg 13,5

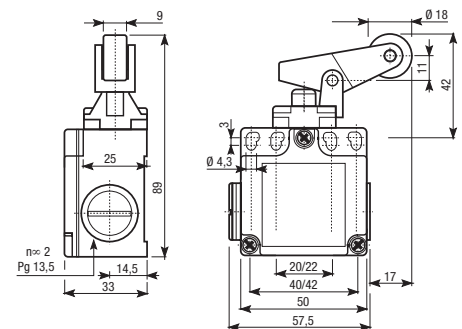
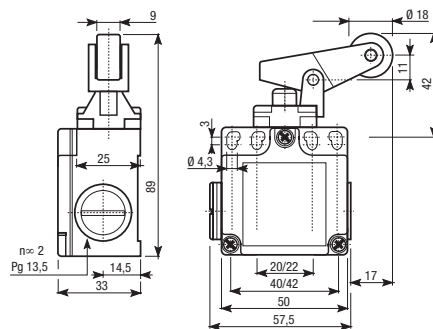
D•S1



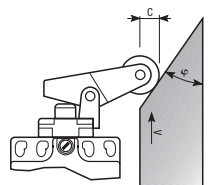
Thermoplastic roller lever with rubber gasket, vertical actuation

Thermoplastic	Contact travel
E20000DIS1	
E20001DIS1	
E20002DIS1	
E20003DIS1	
E20004DIS1	
E20005DIS1	
	0,130
	1
	Pg 13,5

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
20°	1
30°	0,5

Min. force (N)	
for tripping	9
for positive opening	26



Thermoplastic roller lever

E



Steel roller lever

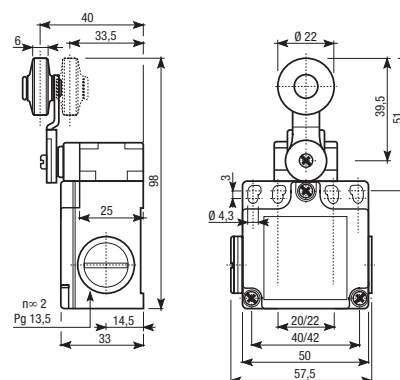
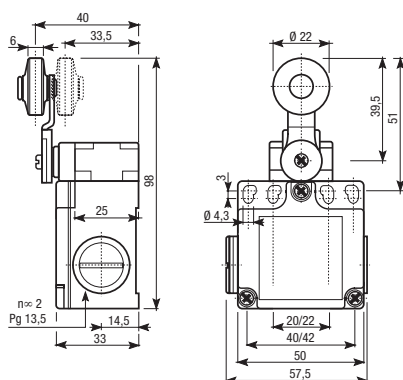
E•RA

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

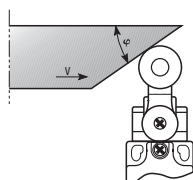
Thermoplastic	Contact travel
E20000EI	
E20001EI	
E20002EI	
E20003EI	
E20004EI	
E20005EI	
0,160	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000EIRA	
E20001EIRA	
E20002EIRA	
E20003EIRA	
E20004EIRA	
E20005EIRA	
0,160	
1	
Pg 13,5	

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
30°	1,5
45°	1
60°	0,75
60-90°	0,25

Min. force (cNm)	
for tripping	15
for positive opening	35



E•50

Ø50 mm rubber roller lever



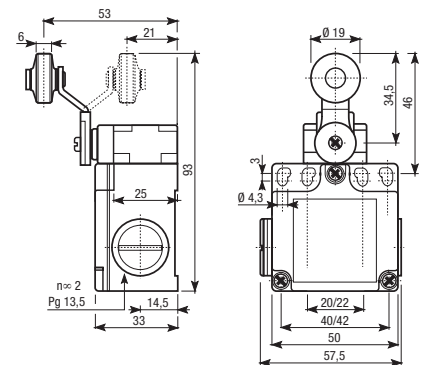
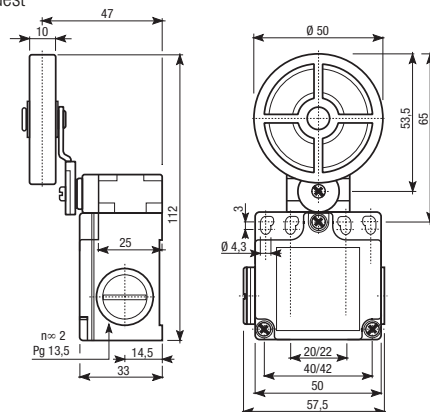
Thermoplastic roller lever

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

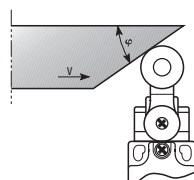
Thermoplastic	Contact travel
E20000EI50	
E20001EI50	
E20002EI50	
E20003EI50	
E20004EI50	
E20005EI50	
0,175	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000II	
E20001II	
E20002II	
E20003II	
E20004II	
E20005II	
0,160	
1	
Pg 13,5	

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
30°	1,5
45°	1
60°	0,75
60-90°	0,25

Min. force (cNm)	
for tripping	15
for positive opening	35



I•RA

Steel roller lever



I•50

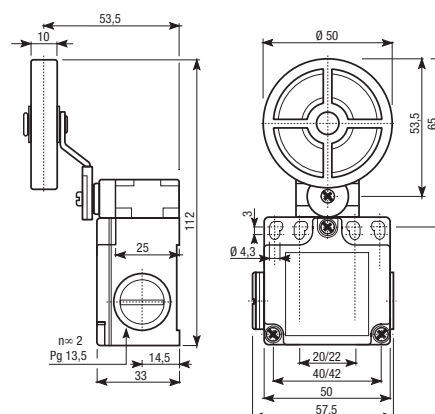
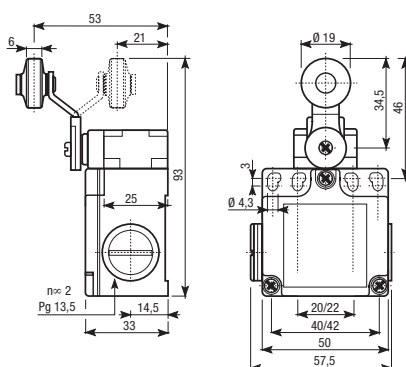
Ø50 mm rubber roller lever

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

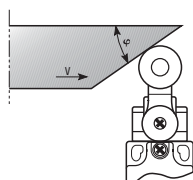
Thermoplastic	Contact travel
E20000IIRA	
E20001IIRA	
E20002IIRA	
E20003IIRA	
E20004IIRA	
E20005IIRA	
0,160	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000II50	
E20001II50	
E20002II50	
E20003II50	
E20004II50	
E20005II50	
0,170	
1	
Pg 13,5	

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
30°	1,5
45°	1
60°	0,75
60-90°	0,25

Min. force (cNm)	
for tripping	15
for positive opening	35



F

Thermoplastic roller variable length lever



F•50

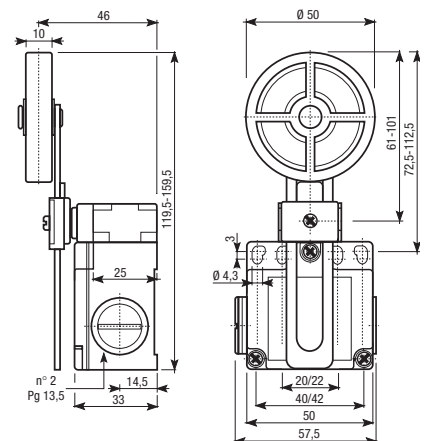
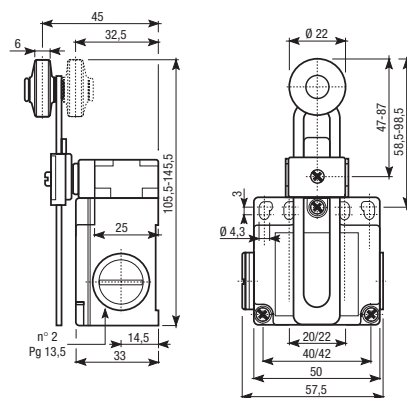
Ø50 mm rubber roller variable length lever

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

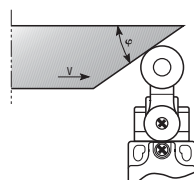
Thermoplastic	Contact travel
E20000FI	
E20001FI	
E20002FI	
E20003FI	
E20004FI	
E20005FI	
Weight	kg
Pack	pcs
Cable entry	

Thermoplastic	Contact travel
E20000FI50	
E20001FI50	
E20002FI50	
E20003FI50	
E20004FI50	
E20005FI50	
Weight	kg
Pack	pcs
Cable entry	

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
30°	1,5
45°	1
60°	0,75
60-90°	0,25

Min. force (cNm)	
for tripping	15
for positive opening	35



FR•50

Ø50 mm rubber roller adjustable lever



G

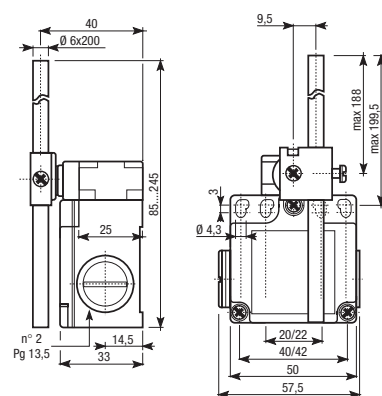
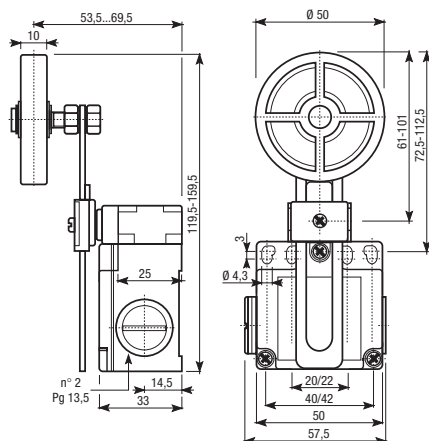
Side rotary adjustable Ø6 mm glass fiber rod

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

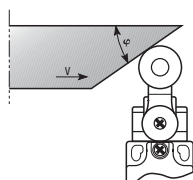
Thermoplastic	Contact travel
E20000FRI50	
E20001FRI50	
E20002FRI50	
E20003FRI50	
E20004FRI50	
E20005FRI50	
0,210	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000GI	
E20001GI	
E20002GI	
E20003GI	
E20004GI	
E20005GI	
0,190	
1	
Pg 13,5	

standard article article on request



Drive cam operating parameters



φ	V max (m/s)
30°	1,5
45°	1
60°	0,75
60-90°	0,25

Min. force (cNm)	
for tripping	15
for positive opening	35



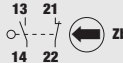
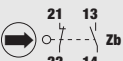
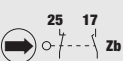
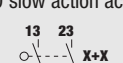
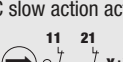
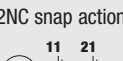
H

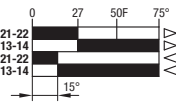
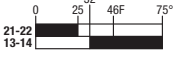
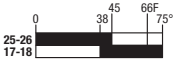
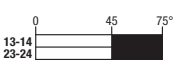

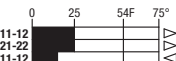
Side rotary adjustable Ø6 mm aluminium rod

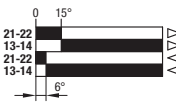
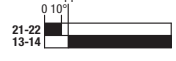
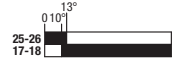
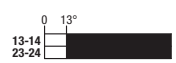

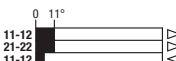



L

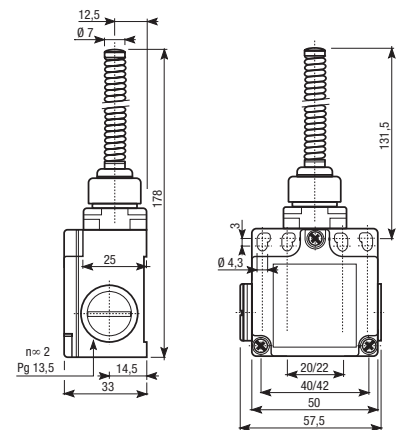
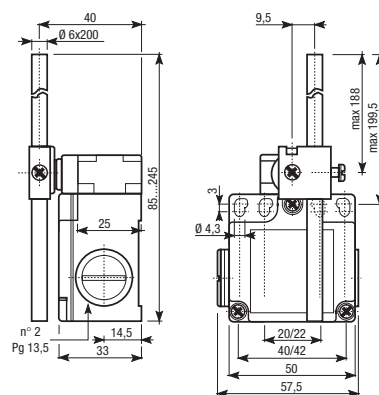
Flexible rod

Contact block		
1NO+1NC snap action 	00	
1NO+1NC slow action 	01	
1NO+1NC slow overlap. 	02	
2NO slow action action 	03	
2NC slow action action 	04	
2NC snap action 	05	
Weight	kg	
Pack	pcs	
Cable entry		

Thermoplastic	Contact travel
E20000HI	
E20001HI	
E20002HI	
E20003HI	
E20004HI	
E20005HI	
0,190	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000LI	
E20001LI	
E20002LI	
E20003LI	
E20004LI	
E20005LI	
0,160	
1	
Pg 13,5	

 standard article  article on request





LP

Flexible rod with plastic terminal



LS

Cat's whisker

Contact block		
1NO+1NC snap action		00
1NO+1NC slow action		01
1NO+1NC slow overlap.		02
2NO slow action		03
2NC slow action		04
2NC snap action		05
Weight	kg	
Pack	pcs	
Cable entry		

Thermoplastic	Contact travel
E20000LPI	
E20001LPI	
E20002LPI	
E20003LPI	
E20004LPI	
E20005LPI	
0,160	
1	
Pg 13,5	

Thermoplastic	Contact travel
E20000LSI	
E20001LSI	
E20002LSI	
E20003LSI	
E20004LSI	
E20005LSI	
0,160	
1	
Pg 13,5	

standard article article on request

