

## Limit switches E300 series



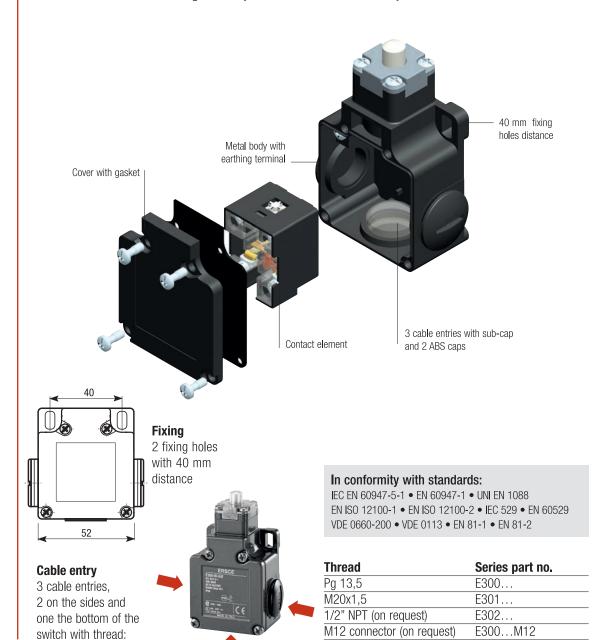






#### E300 series

The **E300** series is designed to withstand to the most severe conditions. It has two fixing holes with distance 40mm. Each switch has three cable entries, two on each side and one on the bottom, for maximum wiring flexibility. Available with metal body and actuators.



A•S1

## limit and safety switches



Steel plunger

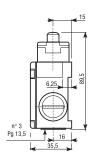


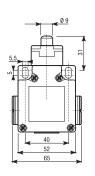
Steel plunger with rubber gasket

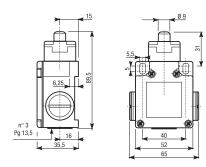
		Cable	Cable entry	
		PG 13,5	M20 x 1,5	-
Contact element		Metal head Metal body	Metal head Metal body	Contact travel
1NO+1NC snap action  13 21	00	E30000AM	E30100AM	0 2,2 4,5F 6 mm 21-22 13-14 21-22 13-14 1 1
1NO+1NC slow action  21 13	01	E30001AM	E30101AM	0 2,2 4,5F 6 mm 21-22 13-14
1N0+1NC slow overlap.  25 17	02	E30002AM	E30102AM	0 3,3 4,5F 6 mm 25-26 17-18
2NO slow action 13 23	03	E30003AM	E30103AM	0 4 6 mm 13-14 23-24
2NC slow action  11 21	04	E30004AM	E30104AM	0 2,7 4,5F 6 mm 11-12 21-22
2NC snap action  11 21	05	E30005AM	E30105AM	0 2,3 4,5F 6 mm 11-12 21-22 11-12 21-22
Weight	kg	0,3	32	-
Pack	pcs			-

standard article

Cable	entry	1
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000AMS1	E30100AMS1	0 2,2 4,5F 6 mm 21-22 13-14 21-22 13-14 1
E30001AMS1	E30101AMS1	0 2,2 9 4,5F 6 mm 21-22 13-14
E30002AMS1	E30102AMS1	0 33 4.5F 6 mm
E30003AMS1	E30103AMS1	0 4 6 mm 13-14 23-24
E30004AMS1	E30104AMS1	0 2,7 4,5F 6 mm 11-12 21-22
E30005AMS1	E30105AMS1	0 2,3 4,5F 6 mm 11-12 21-22 11-12 21-22
0,	32	-
	1	_









V max (m/s)	0,5
Drive forces	
Minimum command force	9 N
Minimum forced	
opening force	28 N



# Limit switches - E300 series



В

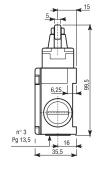
Steel roller plunger

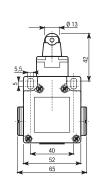
Contact element	
1NO+1NC snap action	
13 21 	00
1NO+1NC slow action 	04
→ ○	01
1NO+1NC slow overlap.	00
26 18	02
2NO slow action	
13 23 ◇-\\ X+X 14 24	03
2NC slow action	
11 21 	04
2NC snap action	
11 21 	05
Weight	kg

PG 13,5 M20 x 1,5  Metal head Metal head	
Metal head Metal head	
Metal body Metal body	Contact travel
E30000BM E30100BM 21-13-13-	0 2,2 4,5F 6 mm -22
E30001BM E30101BM 21-	0 2,2 4,5F 6 mm
E30002BM E30102BM <sub>25-17-</sub>	0 3,8 4,5F 6 mm
E30003BM E30103BM <sup>13-23-</sup>	0 4 6 mm
E30004BM E30104BM 111-21-	0 2,7 4,5F 6 mm
E30005BM E30105BM 211-21-21-	0 2,3 4,5F 6 mm 1-12
0,32	
1	

standard article

Pack





Drive cam operating param	eters				
	V max (m/s)	0,5	10	φ V m	ax (m/s) 1
>	Drive forces Minimum command force	9 N	<u> </u>	30°	0,5
	Minimum forced			Drive forces	
	opening force	28 N		Minimum command force Minimum forced	9 N
D. O. C.				opening force	28 N

## limit and safety switches



С

Thermoplastic roller lever, side actuation

Contact element

1NO+1NC snap action

1NO+1NC slow action

2NO slow action

2NC slow action

2NC snap action

Weight

Pack

standard article

00

01

02

03

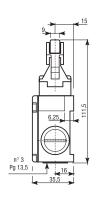
04

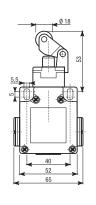
05

kg

pcs

	0.0.0	_
Cable	entry	
PG 13,5	M20 x 1,5	
Metal head	Metal head	Contact travel
Metal body	Metal body	Contact dave
E30000CM	E30100CM	0 3,3 7F 9 mm 21-22 13-14
E30001CM	E30101CM	0 3,2 4,4 7F 9 mm 21-22 13-14
E30002CM	E30102CM	0 5 7F 9 mm 25-26 177-18
E30003CM	E30103CM	0 6 9 mm 13-14 23-24
E30004CM	E30104CM	0 4 7F 9 mm 11-12 21-22
E30005CM	E30105CM	0 3,3 7F 9 mm 11-12 21-22 11-12 21-22
0,3	325	_
		_



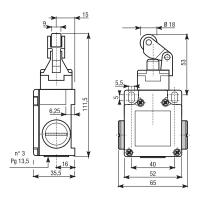




C•S1

Thermoplastic roller lever with rubber gasket, side actuation

Cable entry		
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000CMS1	E30100CMS1	0 3,3 7F 9 mm 21-22 13-14 21-22 13-14
E30001CMS1	E30101CMS1	0 3,2 7F 9 mm
E30002CMS1	E30102CMS1	0 5 7F 9 mm 25-26 17-18
E30003CMS1	E30103CMS1	0 6 9 mm 13-14 23-24
E30004CMS1	E30104CMS1	0 4 7F 9 mm 11-12 21-22
E30005CMS1	E30105CMS1	0 3,3 7F 9 mm 11-12 21-22 11-12 21-22
0,3	325	-
	1	-





φ	V max (m/s)
20°	1
30°	0,5

Drive forces	
Minimum command force	9 N
Minimum forced	
opening force	26 N



# Limit switches - E300 series

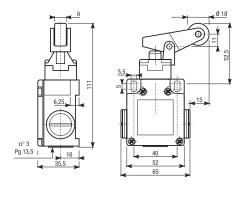
D



vertical actuation



		Cable	Cable entry	
		PG 13,5	M20 x 1,5	
Contact element		Metal head Metal body	Metal head Metal body	Contact travel
1NO+1NC snap action  13 21	00	E30000DM	E30100DM	0 3 6F 8 mm 21-22 13-14 21-22 13-14 1,4
1NO+1NC slow action  21 13	01	E30001 DM	E30101DM	0 3 9 6F 8 mm 21-22 13-14
1NO+1NC slow overlap.  25 17  25 17  26 18	02	E30002DM	E30102DM	0 4,4 6F 8 mm 25-26 17-18
2NO slow action  13 23	03	E30003DM	E30103DM	0 5.4 8 mm 13-14 23-24
2NC slow action  11 21	04	E30004DM	E30104DM	0 3,6 6F 8 mm
2NC snap action  11 21	05	E30005DM	E30105DM	0 3 6F 8 mm 11-12 21-22 11-12 21-22
Weight	kg	0,3	 25	-
Pack	pcs	1		-

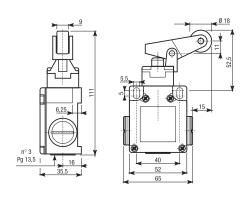




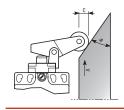
D•S1

Thermoplastic roller lever with rubber gasket, vertical actuation

Cable	entry	]
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000DMS1	E30100DMS1	0 3 6F 8 mm 21-22 13-14 21-22 13-14
E30001DMS1	E30101DMS1	0 3 3 6F 8 mm 21-22 13-14
E30002DMS1	E30102DMS1	0 4,4 6F 8 mm
E30003DMS1	E30103DMS1	0 5,4 8 mm 13-14 23-24
E30004DMS1	E30104DMS1	0 3,6 6F 8 mm 11-12 21-22
E30005DMS1	E30105DMS1	0 3 6F 8 mm 11-12 21-22 11-12 21-22
0,3	325	-
		-



### Drive cam operating parameters



φ	V max (m/s)
20°	1
30°	0,5

Drive forces	
Minimum command force	9 N
Minimum forced	
onening force	26 N

standard article

E•RA

## limit and safety switches



Е

Contact travel

Thermoplastic roller lever

M20 x 1,5

Metal head Metal body

E30100EM

E30101EM

E30102EM

E30103EM

E30104EM

E30105EM

Cable entry

PG 13,5

Metal head

Metal body

E30000EM

E30001EM

E30002EM

E30003EM

E30004EM

E30005EM



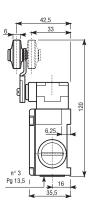
Steel roller lever

Cable	entry	1
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000EMRA	E30100EMRA	0 27 50F 21-22 13-14 21-22 13-14 15°
E30001EMRA	E30101EMRA	0 25 46F 21-22 13-14
E30002EMRA	E30102EMRA	0 38 25-26 17-18
E30003EMRA	E30103EMRA	13-14 45
E30004EMRA	E30104EMRA	0 34 54F 11-12 21-22
E30005EMRA	E30105EMRA	0 25 54F 11-12 21-22 11-12 21-22 15°
0,3	355	-

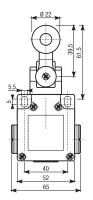
Contact element	
1N0+1NC snap action  13 21	00
1N0+1NC slow action  21 13	01
1NO+1NC slow overlap.  25 17	02
2NO slow action  13 23  ○\\\ x+x  14 24	03
2NC slow action  11 21	04
2NC snap action  11 21	05

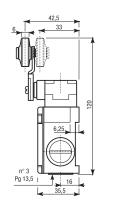
Weight	kg
Pack	pcs

standard article

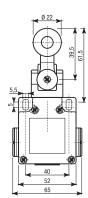


0,355





1





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

15 Ncm
35 Ncm



# Limit switches - E300 series

E•50



Ø50 mm rubber roller lever



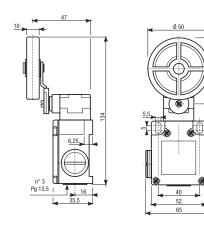
Thermoplastic roller lever

Contact element		
1N0+1NC snap action  13 21	00	
1N0+1NC slow action  21 13	01	
1NO+1NC slow overlap.  25 17	02	
2NO slow action  13 23	03	
2NC slow action  11 21	04	
2NC snap action  11 21	05	

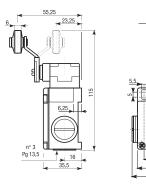
Weight	kg
Pack	pcs

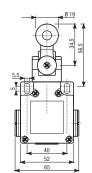
_			
	standard	l article	

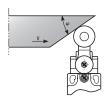
Cable	entry	
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000EM50	E30100EM50	0 27 50F 75° 21-22 13-14 21-22 13-14 15°
E30001EM50	E30101EM50	0 25 46F 75° 21-22 13-14
E30002EM50	E30102EM50	0 38 75° 25-26 775°
E30003EM50	E30103EM50	0 45 75° 13-14 23-24
E30004EM50	E30104EM50	0 34 54F 75° 11-12 21-22
E30005EM50	E30105EM50	0 25 54F 75° 11-12 D D D D D D D D D D D D D D D D D D D
0,3	65	•



Cable	entry	
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000IM	E30100IM	0 27 50F 75° 21-22 13-14 21-22 13-14
E30001IM	E30101IM	0 25 46F 75° 21-22 13-14
E30002IM	E30102IM	0 38 75° 25-26 77-18
E30003IM	E30103IM	13-14 23-24
E30004IM	E30104IM	0 34 54F 75° 11-12 21-22
E30005IM	E30105IM	0 25 54F 75° 11-12 21-22 11-12 21-22 11-12
0,3	65	_
		_







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

Drive forces	
Minimum command force	15 Ncm
Minimum forced	
opening force	35 Ncm

I•50

## limit and safety switches



I•RA

Steel roller lever

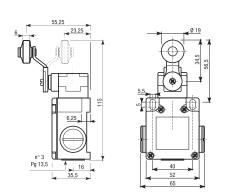


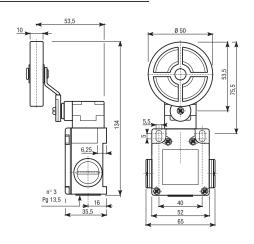
Ø50 mm rubber roller lever

		Cable	entry	]
		PG 13,5	M20 x 1,5	
Contact element		Metal head Metal body	Metal head Metal body	Contact travel
1N0+1NC snap action  13 21	00	E30000IMRA	E30100IMRA	0 27 50F 75° 21-22
1NO+1NC slow action  21 13	01	E30001IMRA	E30101IMRA	0 25 46F 75° 21-22 13-14
1NO+1NC slow overlap.  25 17	02	E30002IMRA	E30102IMRA	0 38 75° 25-26 77-18
2NO slow action 13 23 ○-\\ x+x 14 24	03	E30003IMRA	E30103IMRA	0 45 75° 13-14 23-24
2NC slow action  11 21	04	E30004IMRA	E30104IMRA	0 34 54F 75° 11-12 21-22
2NC snap action  11 21	05	E30005IMRA	E30105IMRA	0 25 54F 75° 11-12 21-22
Weight	kg	0,3	B55	-
Pack	pcs			-

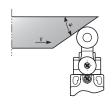
standard article

Cable	entry	
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000IM50	E30100IM50	0 27 50F 75° 21-22
E30001IM50	E30101IM50	0 25 46F 75° 21-22 13-14
E30002IM50	E30102IM50	0 38 75° 25-26 775° 17-18
E30003IM50	E30103IM50	0 45 75° 13-14 23-24
E30004IM50	E30104IM50	0 34 54F 75° 11-12 21-22
E30005IM50	E30105IM50	0 25 54F 75° 11-12 21-22 11-12 21-22
0,3	65	-





### Drive cam operating parameters



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

Drive forces	
Minimum command force	15 Ncm
Minimum forced	
opening force	35 Ncm

1



Contact element 1NO+1NC snap action

2NO slow action

2NC slow action

Weight

Pack

standard article

00

01

02

03

05

kg

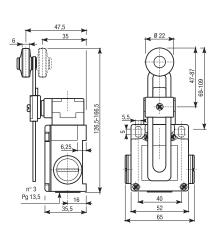
## Limit switches - E300 series



#### Thermoplastic roller variable length lever



Cable	entry	
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000FM	E30100FM	0 27 50F 75° 21-22
E30001FM	E30101FM	0 25 46F 75° 21-22 13-14
E30002FM	E30102FM	0 38 75° 25-26 775°
E30003FM	E30103FM	0 45 75° 13-14 23-24
E30004FM	E30104FM	0 34 54F 75° 11-12 21-22
E30005FM	E30105FM	0 25 54F 75° 11-12 D D D D D D D D D D D D D D D D D D D
0,3	75	-
		-
		-

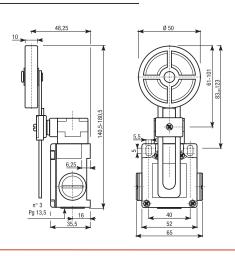


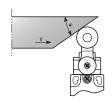


F•50

Ø50 mm rubber roller variable length lever

Cable	e entry	1
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000FM50	E30100FM50	0 27 50F 75° 21-22 13-14 21-22 13-14 15°
E30001FM50	E30101FM50	0 25 46F 75° 21-22 13-14
E30002FM50	E30102FM50	0 38 75° 25-26 75° 17-18
E30003FM50	E30103FM50	0 45 75° 13-14 23-24
E30004FM50	E30104FM50	0 34 54F 75° 11-12 21-22
E30005FM50	E30105FM50	0 25 54F 75° 11-12 21-22 11-12 21-22 15°
0,3	385	-





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

Drive forces	
Minimum command force	15 Ncm
Minimum forced	
opening force	35 Ncm

G

## limit and safety switches



FR•50

### Ø50 mm rubber roller adjustable lever

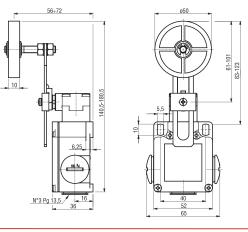


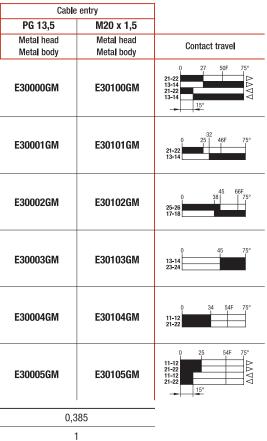
Contact element	
1N0+1NC snap action  13 21	00
1N0+1NC slow action  21 13	01
1NO+1NC slow overlap.  25 17  26 18	02
2NO slow action  13 23	03
2NC slow action  11 21	04
2NC snap action  11 21	05

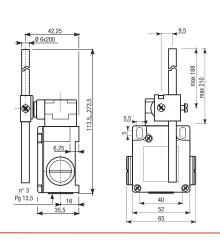
12 22	
Weight	kg
Pack	pcs

standard article

Cable entry		1
PG 13,5	M20 x 1,5	
Metal head Metal body	Metal head Metal body	Contact travel
E30000FRM50	E30100FRM50	0 27 50F 75° 21-22
E30001FRM50	E30101FRM50	0 25 46F 75° 21-22 13-14
E30002FRM50	E30102FRM50	0 38 75° 25-26 75°
E30003FRM50	E30103FRM50	0 45 75° 13-14 23-24
E30004FRM50	E30104FRM50	0 34 54F 75° 11-12 21-22
E30005FRM50	E30105FRM50	0 25 54F 75° 11-12 21-22 5 11-12 15°
0,395		•
	1	









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

Drive forces	
Minimum command force	15 Ncm
Minimum forced	
opening force	35 Nor



Contact element 1NO+1NC snap action

2NO slow action

2NC slow action

Weight

Pack

standard article

00

01

02

03

04

05

kg

pcs

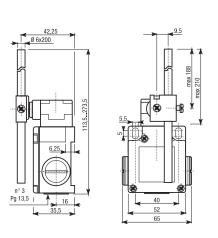
# Limit switches - E300 series

Н



#### Side rotary adjustable Ø6 mm aluminium rod

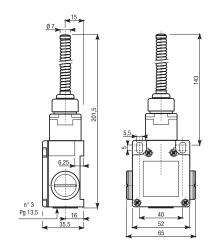
Cable	entry	]
PG 13,5	M20 x 1,5	
Metal head	Metal head	Contact travel
Metal body	Metal body	
E30000HM	E30100HM	0 27 50F 75° 21-21
E30001HM	E30101HM	0 25 46F 75° 21-22 13-14
E30002HM	E30102HM	0 38 75° 25-26 77-18
E30003HM	E30103HM	0 45 75° 13-14 23-24
E30004HM	E30104HM	0 34 54F 75° 11-12 21-22
E30005HM	E30105HM	0 25 54F 75° 11-12 21-22 11-12 21-22
0,3	885	<del>-</del> -





Flexible rod

Cable entry		
PG 13,5	M20 x 1,5	1
Metal head Metal body	Metal head Metal body	Contact travel
E30000LM	E30100LM	0 15° 21-22 13-14 21-22 13-14 6°
E30001LM	E30101LM	0 10° 21-22 13-14
E30002LM	E30102LM	0 10° 0 10° 25-26 17-18
E30003LM	E30103LM	0 13° 13-14 23-24
E30004LM	E30104LM	11-12 21-22
E30005LM	E30105LM	0 11° 11-12 21-22 11-12 21-22 5°
0,35		_
	1	_



LS

## limit and safety switches



### Flexible rod with

LP h plastic terminal			Cat's whis	ker	
			Cable	entry	
,5			PG 13,5	M20 x 1,5	
ad	Contact travel		Metal head	Metal head	Contact travel

Contact element		
1NO+1NC snap action  13 21	00	
1N0+1NC slow action  21 13  0-1	01	
1N0+1NC slow overlap.  25 17  >	02	
2NO slow action  13 23	03	
2NC slow action  11 21	04	
2NC snap action  11 21	05	

12 22	
Weight	kg
Pack	pcs

standard article

Cable entry		1
PG 13,5 M20 x 1,5		-
Metal head Metal body	Metal head Metal body	Contact travel
E30000LPM	E30100LPM	0 15° 21-22 13-14 21-22 13-14
E30001LPM	E30101LPM	0 10 <sup>4</sup> 21-22 13-14
E30002LPM	E30102LPM	0 10 <sup>3</sup> 25-26 17-18
E30003LPM	E30103LPM	0 13° 13-14 23-24
E30004LPM	E30104LPM	11-12 21-22
E30005LPM	E30105LPM	0 11° 11-12 21-22 11-12 21-22 5°
0,35		-
		-

Cable entry		1
PG 13,5	M20 x 1,5	1
Metal head Metal body	Metal head Metal body	Contact travel
E30000LSM	E30100LSM	0 15° 21-22 13-14 21-22 13-14 
E30001LSM	E30101LSM	0 10° 21-22 13-14
E30002LSM	E30102LSM	0 10° 25-26 17-18
E30003LSM	E30103LSM	0 13° 13-14 23-24
E30004LSM	E30104LSM	0 8° 11-12 21-22
E30005LSM	E30105LSM	0 11° 11-12 21-22 5° 5° 5°
0,35		-
	1	-

