



Position switch ES 14 / EM 14

Features/Options:

- Thermoplastic enclosure
- Double insulated
- ES 14: Slow action \ominus , change-over contact or 2 NC contacts or 2 NC/1 NO contact with double break
- EM 14: Snap action, change-over contact with single or double break
- Mounting details to EN 50047
- Suitable for in-line mounting
- With pre-wired cable
- Gold-plated contacts available on request
- With latching element available on request
- Version with UL/CSA approval available on request
- Version with overlapping contacts available on request (only slow action)
- Ex version available
- Version for low temperatures down to -40 °C with high degree of protection IP 66 available - see chapter [/ ES 14 / EM 14 -40°C IP66 Extreme >](#)

Technical data


Applied standards	EN ISO 13849-1, EN 60947-5-1, EN ISO 14119
Enclosure	thermoplastic, glass-fibre reinforced, impact resistant, self-extinguishing UL 94 V-0
Switch type	type 1
Coding level	no coding
Degree of protection	IP 67 to IEC/EN 60529
B_{10d} (10 % load)	2 million
T_M	max. 20 years
Contact material	silver
Switching system	slow or snap action; slow action: positive break NC contacts \ominus ; positive break depends on the actuator used
Switching elements	ES 14: 1 NC/1 NO, 2 NC or 2 NC/1 NO contact, type Zb EM 14: change-over contact with single break type C or 1 NC/1 NO contact, type Za
Connection	cable H05VV-F (2 contacts) or 6xAWG-20 (3 contacts)
Cable cross-section	ES 14 1Ö/1S and 2Ö: 4 x 0.75 mm ² ES 14 2Ö/1S: 6 x 0.56 mm ² EM 14: 3 x 0.75 mm ² EM 14 1Ö/1S: 4 x 0.75 mm ²
Rated impulse withstand voltage U_{imp}	4 kV
Rated operating isolation voltage U_i	250 V
Conventional thermal current I_{the}	ES 14: 6 A; EM 14: 5 A
Rated operating current/voltage I_e/U_e	ES 14: 6 A/250 VAC; 0.25 A/230 VDC EM 14: 5 A/250 VAC; 0.16 A/230 VDC
Utilisation category	AC-15; DC-13
Short-circuit protection	ES 14: 6 A gG/gN fuse EM 14: 5 A gG/gN fuse

Errors and omissions excepted.



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Technical data

Ambient temperature	-20 °C ... +75 °C
Mechanical life	> 1 million operations
Operation cycles	max. 1800/h
Repeat accuracy of switching points	± 0.1 mm
Contact opening	max. 2 x 4 mm
Approvals	

Ordering details



Plunger, * with safety function

* with safety function

Type
 ES 14 1Ö/1S - 2m
 ES 14 1Ö/1S - 5m
 ES 14 2Ö - 2m
 ES 14 2Ö - 5m
 ES 14 2Ö/1S - 2m
 ES 14 2Ö/1S - 5m

Material no.
 1045298
 1045310
 1172738
 1182918
 on request
 on request

EM 14 - 2m
 EM 14 - 5m
 EM 14 1Ö/1S - 2m
 EM 14 1Ö/1S - 5m

1045571
 1163617
 on request
 on request



Plunger with collar W, * with safety function

* with safety function

Type
 ES 14 W 1Ö/1S - 2m
 ES 14 W 1Ö/1S - 5m
 ES 14 W 2Ö - 2m
 ES 14 W 2Ö - 5m
 ES 14 W 2Ö/1S - 2m
 ES 14 W 2Ö/1S - 5m

Material no.
 1189058
 1045327
 on request
 on request
 on request
 on request

EM 14 W - 2m
 EM 14 W - 5m
 EM 14 W 1Ö/1S - 2m
 EM 14 W 1Ö/1S - 5m

1045580
 1185978
 on request
 on request

Errors and omissions excepted.



Position switch ES 14 / EM 14

Ordering details



Plunger for front mounting F, *
with safety function

* with safety function

Type
ES 14 F 1Ö/1S - 2m
ES 14 F 1Ö/1S - 5m
ES 14 F 2Ö - 2m
ES 14 F 2Ö - 5m
ES 14 F 2Ö/1S - 2m
ES 14 F 2Ö/1S - 5m

Material no.
1045438
1045440
on request
on request
on request
on request

EM 14 F - 2m
EM 14 F - 5m
EM 14 F 1Ö/1S - 2m
EM 14 F 1Ö/1S - 5m

1188885
1045653
on request
on request



Ball plunger KU, * with safety
function

* with safety function

Type
ES 14 KU 1Ö/1S - 2m
ES 14 KU 1Ö/1S - 5m
ES 14 KU 2Ö - 2m
ES 14 KU 2Ö - 5m
ES 14 KU 2Ö/1S - 2m
ES 14 KU 2Ö/1S - 5m

Material no.
1189059
1045336
on request
on request
on request
on request

EM 14 KU - 2m
EM 14 KU - 5m
EM 14 KU 1Ö/1S - 2m
EM 14 KU 1Ö/1S - 5m

1188909
1158214
on request
on request



Ball plunger with collar WKU, *
with safety function

* with safety function

Type
ES 14 WKU 1Ö/1S - 2m
ES 14 WKU 1Ö/1S - 5m
ES 14 WKU 2Ö - 2m
ES 14 WKU 2Ö - 5m
ES 14 WKU 2Ö/1S - 2m
ES 14 WKU 2Ö/1S - 5m

Material no.
1180567
1171497
on request
on request
on request
on request

EM 14 WKU - 2m
EM 14 WKU - 5m
EM 14 WKU 1Ö/1S - 2m
EM 14 WKU 1Ö/1S - 5m

1175538
1045588
on request
on request



Ball plunger for front mounting
FKU, * with safety function

* with safety function

Type
ES 14 FKU 1Ö/1S - 2m
ES 14 FKU 1Ö/1S - 5m
ES 14 FKU 2Ö - 2m
ES 14 FKU 2Ö - 5m
ES 14 FKU 2Ö/1S - 2m
ES 14 FKU 2Ö/1S - 5m

Material no.
1053487
1189060
on request
on request
on request
on request

EM 14 FKU - 2m
EM 14 FKU - 5m
EM 14 FKU 1Ö/1S - 2m
EM 14 FKU 1Ö/1S - 5m

1188910
1188911
on request
on request

Errors and omissions excepted.



Position switch ES 14 / EM 14

Ordering details



Vertical ball plunger VKU, * with safety function

* with safety function

Type
ES 14 VKU 1Ö/1S - 2m
ES 14 VKU 1Ö/1S - 5m
ES 14 VKU 2Ö - 2m
ES 14 VKU 2Ö - 5m
ES 14 VKU 2Ö/1S - 2m
ES 14 VKU 2Ö/1S - 5m
EM 14 VKU - 2m
EM 14 VKU - 5m
EM 14 VKU 1Ö/1S - 2m
EM 14 VKU 1Ö/1S - 5m

Material no.
1189124
1045531
on request
on request
on request
on request
1186354
1045682
on request
on request



Roller plunger R, * with safety function

* with safety function

Type
ES 14 R 1Ö/1S - 2m
ES 14 R 1Ö/1S - 5m
ES 14 R 2Ö - 2m
ES 14 R 2Ö - 5m
ES 14 R 2Ö/1S - 2m
ES 14 R 2Ö/1S - 5m
EM 14 R - 2m
EM 14 R - 5m
EM 14 R 1Ö/1S - 2m
EM 14 R 1Ö/1S - 5m

Material no.
1045362
1045374
1045552
1177739
on request
on request
1045594
1160275
on request
on request



Roller plunger with collar WR, * with safety function

* with safety function

Type
ES 14 WR 1Ö/1S - 2m
ES 14 WR 1Ö/1S - 5m
ES 14 WR 2Ö - 2m
ES 14 WR 2Ö - 5m
ES 14 WR 2Ö/1S - 2m
ES 14 WR 2Ö/1S - 5m
EM 14 WR - 2m
EM 14 WR - 5m
EM 14 WR 1Ö/1S - 2m
EM 14 WR 1Ö/1S - 5m

Material no.
1045384
1189130
1045556
1045555
on request
on request
1178413
1186355
on request
on request



Roller plunger for front mounting FR, * with safety function

* with safety function

Type
ES 14 FR 1Ö/1S - 2m
ES 14 FR 1Ö/1S - 5m
ES 14 FR 2Ö - 2m
ES 14 FR 2Ö - 5m
ES 14 FR 2Ö/1S - 2m
ES 14 FR 2Ö/1S - 5m
EM 14 FR - 2m
EM 14 FR - 5m
EM 14 FR 1Ö/1S - 2m
EM 14 FR 1Ö/1S - 5m

Material no.
1189131
1053853
1052836
1187265
on request
on request
1174494
1188912
on request
on request

Errors and omissions excepted.



Position switch ES 14 / EM 14

Ordering details

Vertical roller plunger VR, * with safety function

* with safety function



Type

ES 14 VR 1Ö/1S - 2m
ES 14 VR 1Ö/1S - 5m
ES 14 VR 2Ö - 2m
ES 14 VR 2Ö - 5m
ES 14 VR 2Ö/1S - 2m
ES 14 VR 2Ö/1S - 5m

Material no.

1189132
1186508
on request
1184485
on request
on request

EM 14 VR - 2m

1188914

EM 14 VR - 5m

1188915

EM 14 VR 1Ö/1S - 2m

on request

EM 14 VR 1Ö/1S - 5m

on request

Rocking lever D, * with safety function

* with safety function



Type

ES 14 D 1Ö/1S - 2m
ES 14 D 1Ö/1S - 5m
ES 14 D 2Ö - 2m
ES 14 D 2Ö - 5m
ES 14 D 2Ö/1S - 2m
ES 14 D 2Ö/1S - 5m

Material no.

1045398
1045401
on request
1164740
on request
on request

EM 14 D - 2m

1045623

EM 14 D - 5m

1169929

EM 14 D 1Ö/1S - 2m

on request

EM 14 D 1Ö/1S - 5m

on request

Long rocking lever DL, * with safety function

* with safety function



Type

ES 14 DL 1Ö/1S - 2m
ES 14 DL 1Ö/1S - 5m
ES 14 DL 2Ö - 2m
ES 14 DL 2Ö - 5m
ES 14 DL 2Ö/1S - 2m
ES 14 DL 2Ö/1S - 5m

Material no.

1189133
1045412
on request
on request
on request
on request

EM 14 DL - 2m

1188924

EM 14 DL - 5m

1188925

EM 14 DL 1Ö/1S - 2m

on request

EM 14 DL 1Ö/1S - 5m

on request

Adjustable rocking lever DS



Type

ES 14 DS 1Ö/1S - 2m
ES 14 DS 1Ö/1S - 5m
ES 14 DS 2Ö - 2m
ES 14 DS 2Ö - 5m
ES 14 DS 2Ö/1S - 2m
ES 14 DS 2Ö/1S - 5m

Material no.

1189134
1053850
on request
on request
on request
on request

EM 14 DS - 2m

1188928

EM 14 DS - 5m

1187613

EM 14 DS 1Ö/1S - 2m

on request

EM 14 DS 1Ö/1S - 5m

1189606

Errors and omissions excepted.



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Ordering details



Long spring rod TL

Type

ES 14 TL 1Ö/1S - 2m
ES 14 TL 1Ö/1S - 5m
ES 14 TL 2Ö - 2m
ES 14 TL 2Ö - 5m
ES 14 TL 2Ö/1S - 2m
ES 14 TL 2Ö/1S - 5m

Material no.

1189135
1173449
on request
on request
on request
on request

EM 14 TL - 2m
EM 14 TL - 5m
EM 14 TL 1Ö/1S - 2m
EM 14 TL 1Ö/1S - 5m

1045633
1188931
on request
on request



Spring rod with steel tip TF

Type

ES 14 TF 1Ö/1S - 2m
ES 14 TF 1Ö/1S - 5m
ES 14 TF 2Ö - 2m
ES 14 TF 2Ö - 5m
ES 14 TF 2Ö/1S - 2m
ES 14 TF 2Ö/1S - 5m

Material no.

1045429
1181322
on request
on request
on request
on request

EM 14 TF - 2m
EM 14 TF - 5m
EM 14 TF 1Ö/1S - 2m
EM 14 TF 1Ö/1S - 5m

1051636
1045643
on request
on request



Spring rod with plastic tip TK

Type

ES 14 TK 1Ö/1S - 2m
ES 14 TK 1Ö/1S - 5m
ES 14 TK 2Ö - 2m
ES 14 TK 2Ö - 5m
ES 14 TK 2Ö/1S - 2m
ES 14 TK 2Ö/1S - 5m

Material no.

1189136
1182268
on request
on request
on request
on request

EM 14 TK - 2m
EM 14 TK - 5m
EM 14 TK 1Ö/1S - 2m
EM 14 TK 1Ö/1S - 5m

1188932
1158813
on request
on request