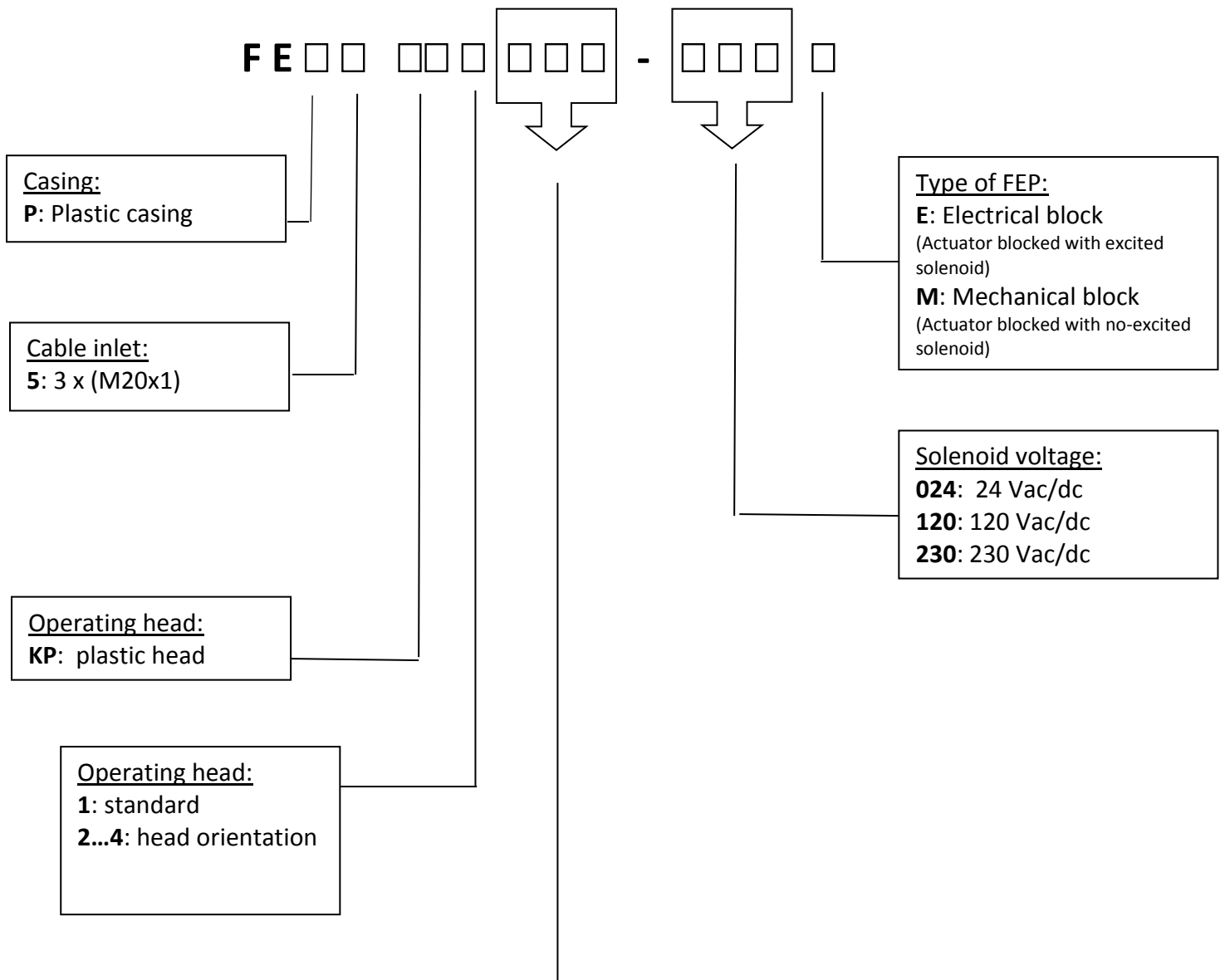


1 – Code Construction



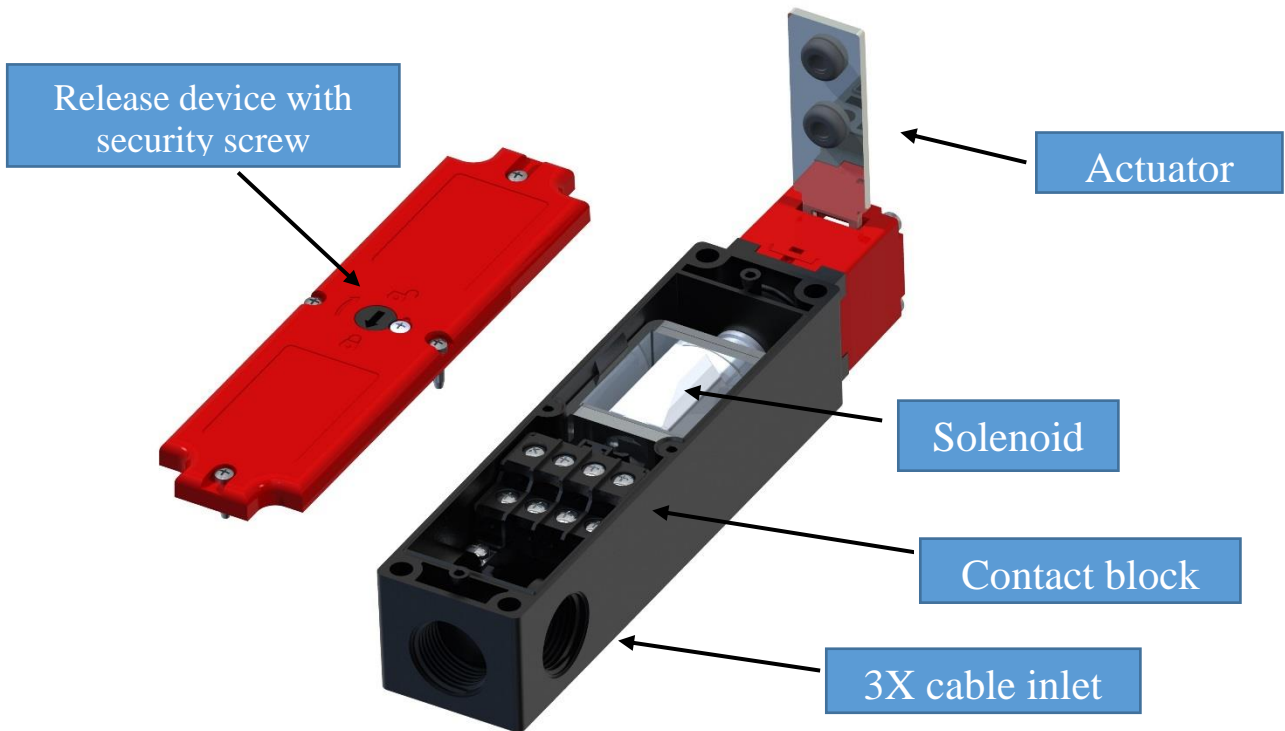
Contact elements:

CODE	DESCRIPTION
FA1	1 contact moved by actuator + 3 contacts moved by solenoid
FA2	1 contact moved by actuator + 3 contacts moved by solenoid
FA3	2 contacts moved by actuator + 2 contacts moved by solenoid

2 - Index

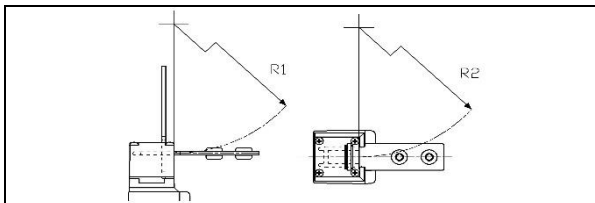
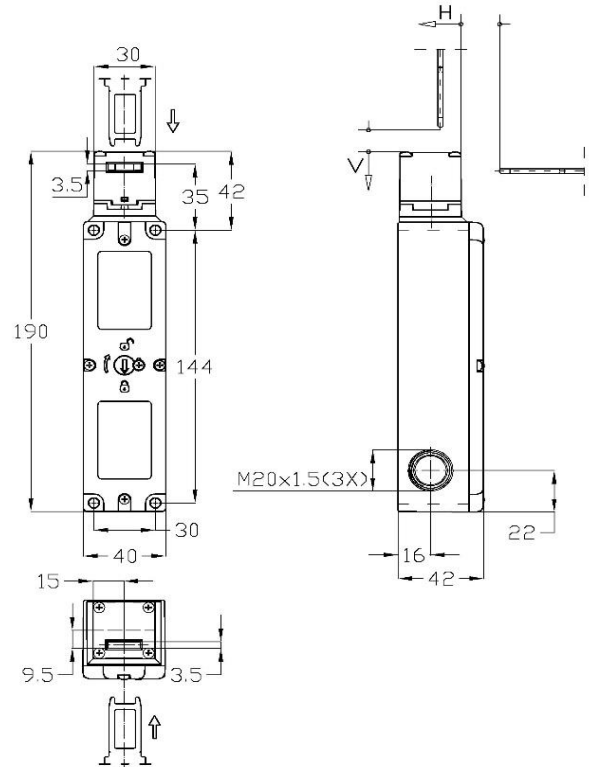
Series	Contact element			Solenoid voltage			FEP's Type		Page
	FA1	FA2	FA3	24V	120V	230V	Electrical block	Mechanical block	
•	•			•			•		3
•		•		•			•		4
•			•	•			•		5
•	•				•		•		3
•		•			•		•		4
•			•		•		•		5
•	•					•	•		3
•		•				•	•		4
•			•			•	•		5
•	•			•				•	6
•		•		•				•	7
•			•	•				•	8
•	•				•			•	6
•		•			•			•	7
•			•		•			•	8
•	•					•		•	6
•		•				•		•	7
•			•			•		•	8

3 – Components detection



Electromagnetic Safety Switch With Separated Actuator

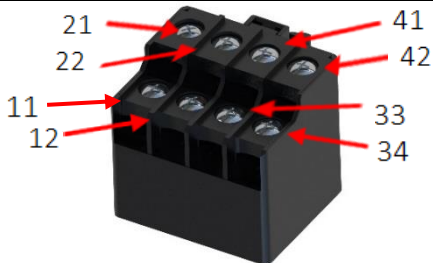
4 – Data sheet FEP5KP•FA1 - ●●●E



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Electrical block: actuator blocked when the solenoid is excited. The release is possible by cut power. ATTENTION: In case of lack of voltage, the device allows immediately access to the protected area.

Solenoid electrical data (3 different versions)	
24V	Max. 0.35A - 8.3W
120V	Max. 0.08A - 8.1W
230V	Max. 0.03A - 6.8W
Duty Cycle ED	100%



Code's example

FEP5KP1FA1 - 024E = Rated voltage 24V
 FEP5KP1FA1 - 120E = Rated voltage 120V
 FEP5KP1FA1 - 230E = Rated voltage 230V

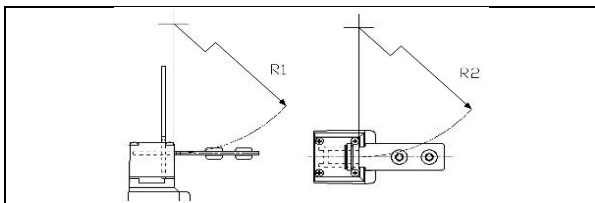
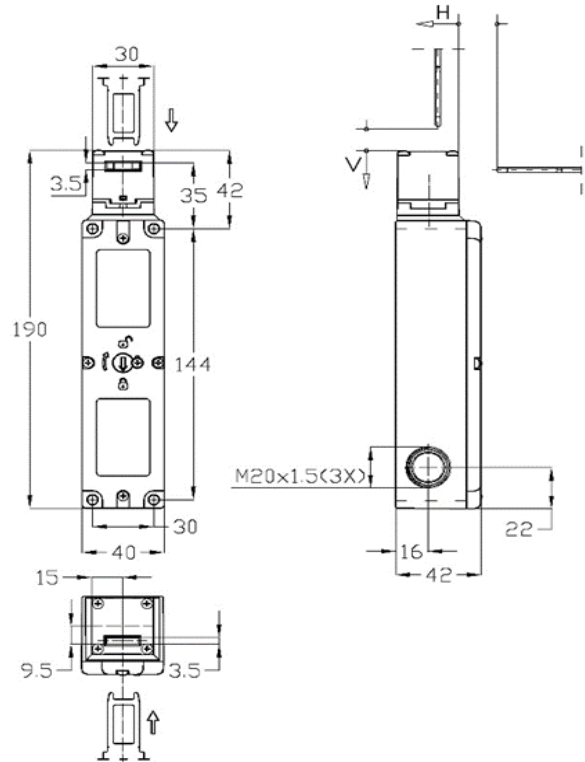
Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA1			
1 contact moved by actuator + 3 contacts moved by solenoid			
Actuator	Inserted and locked	Inserted and unlocked	Not inserted
Solenoid	Excited	Not excited	-
Actuation			
Actuator			
Solenoid			
Solenoid			
Solenoid			

Electromagnetic Safety Switch With Separated Actuator

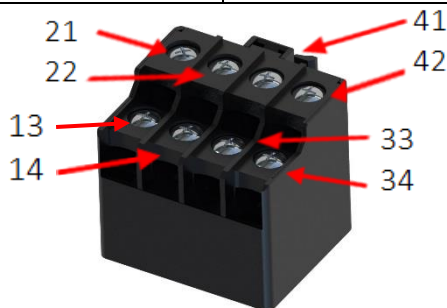
5 – Data Sheet FEP•KP•FA2 - ●●●E



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Electrical block: actuator blocked when the solenoid is excited. The release is possible by cut power. ATTENTION: In case of lack of voltage, the device allows immediately access to the protected area.

Solenoid electrical data (3 different versions)	
24V	Max. 0.35A - 8.34W
120V	Max. 0.08A - 8.14W
230V	Max. 0.03A - 6.83W
Duty Cycle ED	100%



Code's example

FEP5KP1FA2 - 024E = Rated voltage 24V
 FEP5KP1FA2 - 120E = Rated voltage 120V
 FEP5KP1FA2 - 230E = Rated voltage 230V

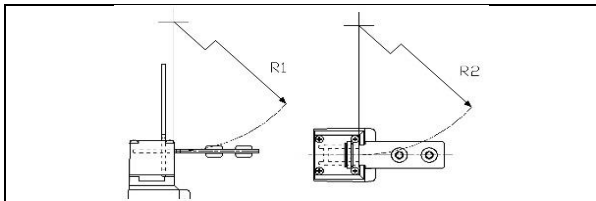
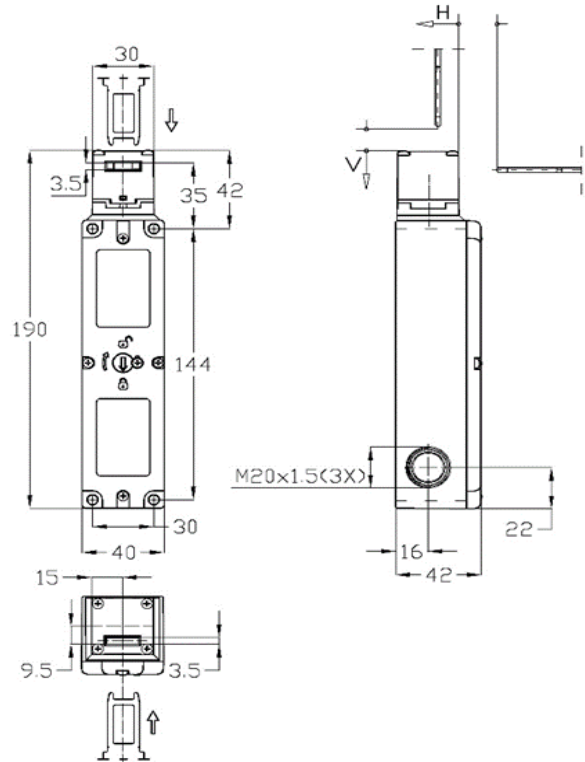
Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA2	Key 25	Key 26	Key 27	Key 28
1 contact moved by actuator + 3 contacts moved by solenoid				
Actuator	Inserted and locked	Inserted and unlocked	Not inserted	
Solenoid	Excited	Not excited	-	
Actuation				
Actuator				
Solenoid				
Solenoid				
Solenoid				

Electromagnetic Safety Switch With Separated Actuator

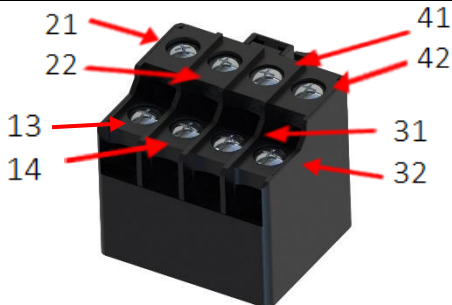
6 – Data Sheet FEP•KP•FA3 - ●●●E



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Electrical block: actuator blocked when the solenoid is excited. The release is possible by cut power. **ATTENTION:** In case of lack of voltage, the device allows immediately access to the protected area.

Solenoid electrical data (3 different versions)	
24V	Max. 0.35A - 8.34W
120V	Max. 0.08A - 8.14W
230V	Max. 0.03A - 6.83W
Duty Cycle ED	100%



Code's example

FEP5KP1FA3 - 024E = Rated voltage 24V
 FEP5KP1FA3 - 120E = Rated voltage 120V
 FEP5KP1FA3 - 230E = Rated voltage 230V

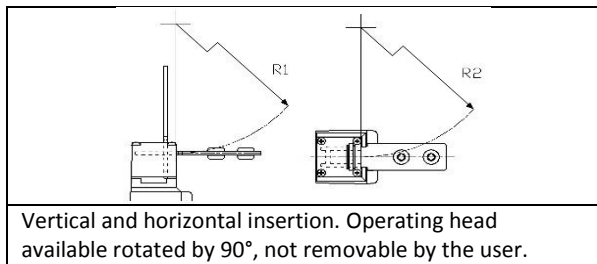
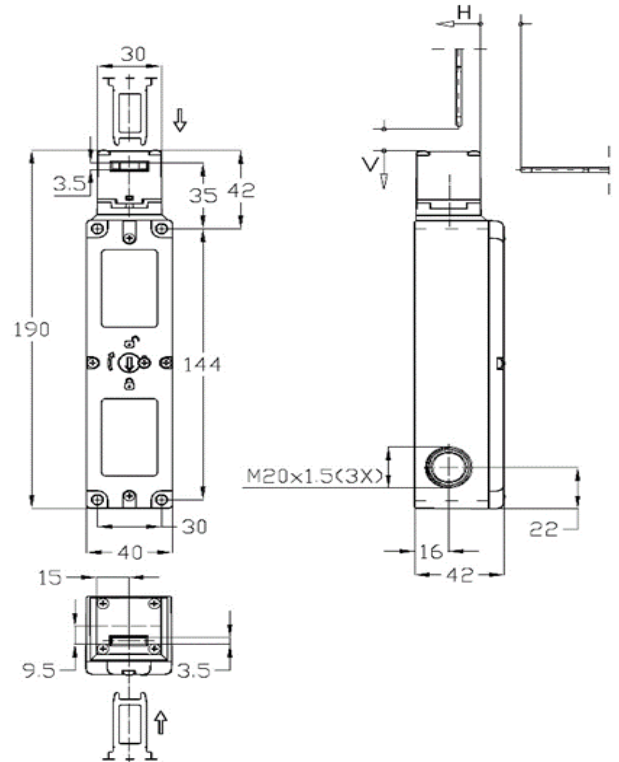
Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA3			
2 contacts moved By actuator + 2 contacts moved by solenoid			
Actuator	Inserted and locked	Inserted and unlocked	Not inserted
Solenoid	Excited	Not excited	-
Actuation			
Actuator			
Solenoid			
Actuator			
Solenoid			

Electromagnetic Safety Switch With Separated Actuator

7 – Data sheet FEP•KP•FA1 - ●●●M



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Mechanical block: Actuator blocked when the solenoid is not excited. The release is possible by feeding the device.

Solenoid electrical data (3 different versions)

24V – FEP5KP•FA1-024M	Max. 0.35A - 8.34W
120V – FEP5KP•FA1-120M	Max. 0.08A - 8.14W
230V – FEP5KP•FA1-230M	Max. 0.03A – 6.83W
Duty Cycle ED	100%



Code's example

FEP5KP1FA1 – 024M = Rated voltage 24V
 FEP5KP1FA1 - 120M = Rated voltage 120V
 FEP5KP1FA1 - 230M = Rated voltage 230V

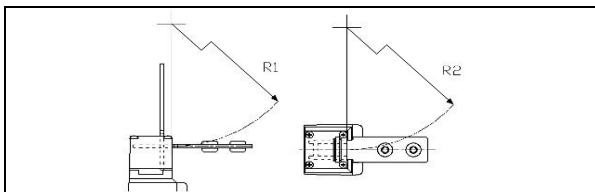
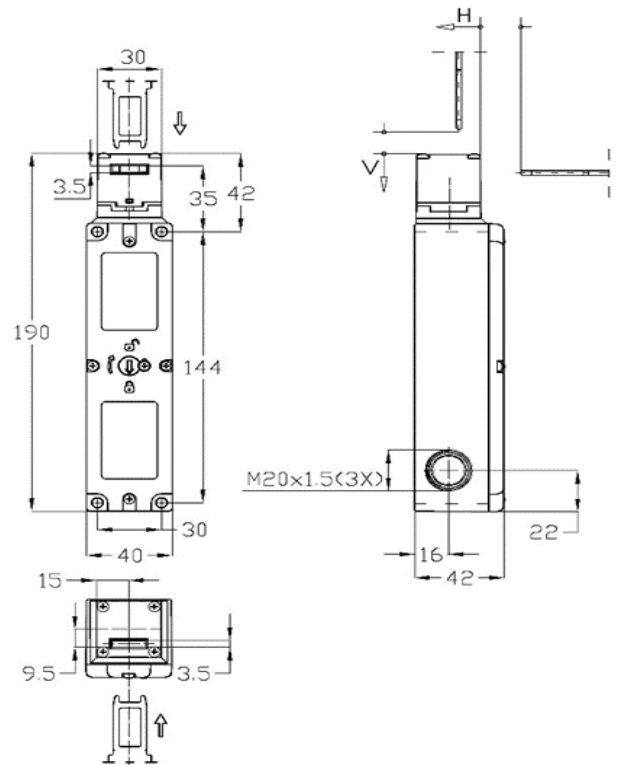
Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA1	Key 25	Key 26	Key 27	Key 28
1 contact moved by actuator + 3 contacts moved by solenoid				
Actuator	Inserted and locked	Inserted and unlocked	Not inserted	
Solenoid	Not excited		Excited	-
Actuation				
Actuator				
Solenoid				
Solenoid				
Solenoid				

Electromagnetic Safety Switch With Separated Actuator

8 – Data sheet FEP•KP•FA2 - ●●●M



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Mechanical block: Actuator blocked when the solenoid is not excited. The release is possible by feeding the device.

Solenoid electrical data (3 different versions)

24V – FEP5KP•FA2-024M	Max. 0.35A - 8.34W
120V – FEP5KP•FA2-120M	Max. 0.08A - 8.14W
230V – FEP5KP•FA2-230M	Max. 0.03A – 6.83W
Duty Cycle	100%



Code's Example

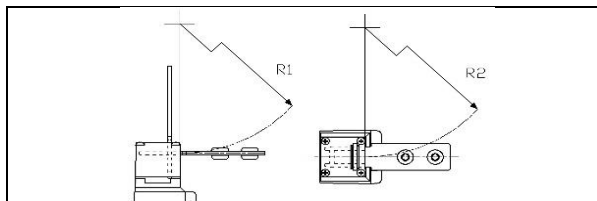
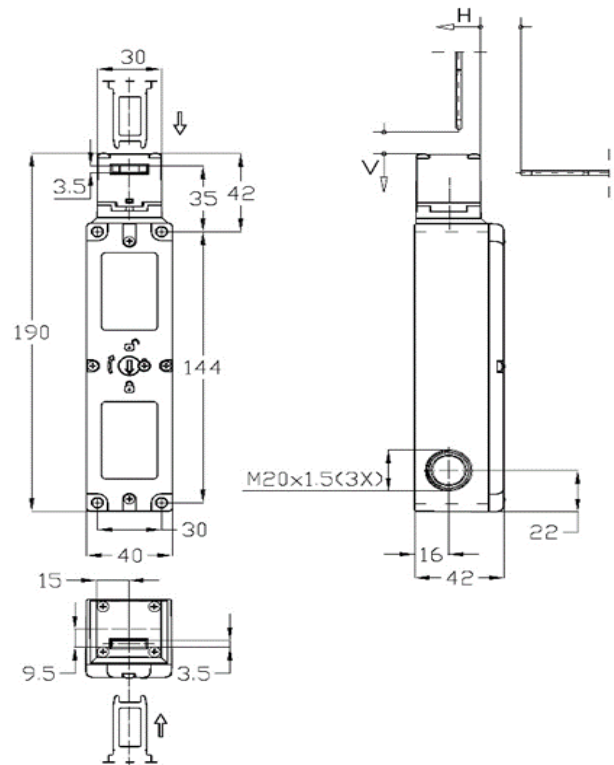
FEP5KP1FA2 - 024M = Rated voltage 24V
 FEP5KP1FA2 - 120M = Rated voltage 120V
 FEP5KP1FA2 - 230M = Rated voltage 230V

Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA2			
1 contact moved by actuator + 3 contacts moved by solenoid			
Actuator	Inserted and locked	Inserted and unlocked	Not inserted
Solenoid	Not excited	Excited	-
Actuation			
Actuator			
Solenoid			
Solenoid			
Solenoid			

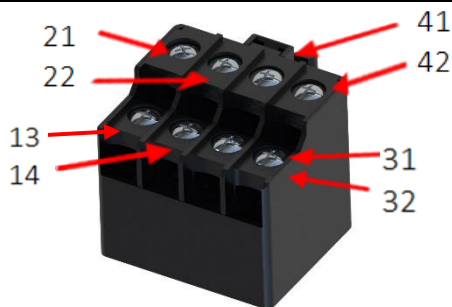
9 – Data Sheet FEP•KP•FA3 - ●●●M



Vertical and horizontal insertion. Operating head available rotated by 90°, not removable by the user.

Mechanical block: Actuator blocked when the solenoid is not excited. The release is possible by feeding the device.

Solenoid electrical data (3 different versions)	
24V – FEP5KP•FA3-024M	Max. 0.35A - 8.34W
120V – FEP5KP•FA3-120M	Max. 0.08A - 8.14W
230V – FEP5KP•FA3-230M	Max. 0.03A – 6.83W
Duty Cycle ED	100%



Code's example

FEP5KP1FA3 - 024M = Rated voltage 24V
 FEP5KP1FA3 - 120M = Rated voltage 120V
 FEP5KP1FA3 - 230M = Rated voltage 230V

Key 25	Key 26	Key 27	Key 28

*Key to be ordered separately

FA3			
2 contact moved by actuator + 2 contacts moved by solenoid			
Actuator	Inserted and locked	Inserted and unlocked	Not inserted
Solenoid	Not excited	Excited	-
Actuation			
Actuator	13 — 14	13 — 14	13 — 14
Solenoid	21 — 22	21 — 22	21 — 22
Actuator	31 — 32	31 — 32	31 — 32
Solenoid	41 — 42	41 — 42	41 — 42

10 – Electrical and mechanical Data

Directives and standards			
Reference directives	2014/35/EU Low Voltage 2006/42/CE Machinery		
Reference standards	EN 60947-1; EN 60947-5-1; EN 60204; UNI EN ISO 14119;		
Approvals	UL acc. to UL508 – IMQ acc. to EN60947-5-1		
Mechanical device data			
Casing material	Reinforced polymeric casing		
Mechanical durability	1 millions of cycles		
B10d	4 millions of cycles		
Air temperature during operation	-25°C ... +55°C		
IP degree of protection	IP65		
Protection against electrical shocks	Class II		
Weight	0.5Kg		
MAX. actuation speed	20 m/min		
MAX. switching frequency	600 cycles/hour		
Insertion depth of the actuator (h)	28mm		
Insertion depth of the actuator (v)	29mm		
Actuation force	15N		
Extraction force	30N		
MAX. retention force	1200N		
Microswitch electrical data			
Principle of operation	Slow action		
Microswitch type	FA1 (1NO + 3NC)	FA2 (2NO + 2NC)	FA3 (1NO + 3 NC)
Contacts moved by actuator	11-12	13-14	13-14 41-42
Contacts moved by solenoid	21-22 33-34 41-42	21-22 33-34 41-42	21-22 31-32
Contact's material	Silver (FA1 – FA2 – FA3)		
Rated insulation voltage U_i	250V (Pollution degree 3)		
Rated impulsive withstand voltage U_{imp}	2,5kV		
Conventional free air thermal current I_{th}	10A		
Short circuit protection – gG type fuses	10A		
Utilization categories	AC-15	24V – 10A	
U_e/I_e	AC-15	230V – 4A	
	DC-13	24V – 4A	
Utilization categories according to UL508	A300 – Q300		
Connecting terminals	M3 screw with cable clamp		
Connecting capacity	0.34 ... 1.5 mm ²		
Cable inlet	3 inlet for M20 cable gland		
Terminal marking	According to 60947-5-1		