

► Operating mode selection and access authoriza

The operating mode selection and access permission system PITmode combines safety and security functions in one system. The devices enable functionally safe operating mode selection control of access permissions on plant and machinery.



PITmode devices can be used on plant and machinery in which it is necessary to switch between a range of control sequences and operating modes. Each employee can be issued machine enables and permissions that correspond to his or her skills using coded transponder keys with RFID technology. The safe evaluation unit detects the specified operating mode, e.g. automatic mode, manual access under restricted conditions or service mode, evaluates it and provides functionally safe switching. Incorrect operation and manipulation are thereby prevented and the human and machine are protected.

PITmode fusion –

The modular operating mode selection system

PITmode fusion is the modular version of the operating mode selection system. It comprises the reading unit PITreader with RFID technology and a separate safe evaluation unit (SEU). The transponder keys are read in and taught in the PITreader. The safe evaluation unit assesses the selected operating mode to provide functionally safe switching between up to five operating modes. PITmode fusion also allows implementation of the full scope of safe permission management. By separating the components, PITmode fusion can be integrated flexibly into the design of existing control consoles and can be combined with existing pushbuttons.

PITreader – Regulates access permission

With PITreader you can implement tasks regarding access permissions for plant and machinery. The options range from a simple enable and authentication of specific machine component functions to a complex hierarchical permission matrix. PITreader with RFID technology is flexible as a standalone device or it can be used in conjunction with a Pilz controller. The transponder keys are available in a freely writable version and also with fixed, stored permissions. For manipulation protection, the RFID keys can be coded with PITreaders with company-specific programming.

PITmode – The compact all-in-one device

With the compact all-in-one device PITmode the pushbuttons for operating mode selection and the safe evaluation unit are integrated in one device. Operating mode and permission are displayed safely via LED. The individual key coding prevents manipulation. As an option, the operating mode selector switch is also available with pictograms for machine tools and thus ideally suited for international applications.

tion system PITmode

The benefits of the operating mode selection and access permission system PITmode

- ▶ Functionally safe switching of operating mode through self-monitoring
- ▶ Control of access permission
- ▶ High level of manipulation protection through company-specific coding
- ▶ PITmode offers a combination of operating mode selector switch and access permission in one compact unit
- ▶ PITmode fusion is the modular version of the operating mode selection and access permission system
- ▶ PITreader flexibly controls access permissions as a standalone device or in combination with a controller from Pilz

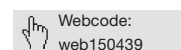
The benefits of the industrial RFID system PITreader at a glance

- ▶ 13.56 MHz RFID technology
- ▶ Ethernet interface: Modbus/TCP protocol
- ▶ 24 V output for signalling
- ▶ 22.5 mm standard mounting hole
- ▶ Integrated web server for configuration of PITreader and transponder keys
- ▶ Read/write and data storage on transponder keys
- ▶ Teaching in of transponder keys on the PITreader via coding
- ▶ Blocking/locking of data areas on the transponder keys
- ▶ Preinstalled group-based permission management
- ▶ Integrated user management
- ▶ Multicolor LED ring for user information

Selection guide – PITmode and PITreader

Type	PITmode	PITmode fusion	PITreader
Application	Functionally safe operating mode selection and access permission system up to PL d	Functionally safe operating mode selection and access permission system up to PL d	Access permission system
System	Compact all-in-one device	Modular system consisting of: ▶ PITreader – RFID reader ▶ Safe evaluation unit (SEU)	PITreader – RFID reader that can be combined with Pilz controller or third-party controller
Pushbutton	Integrated ▶ 2 or 4 pushbuttons ▶ Optionally with pictograms	3rd-party pushbutton	-
Safe evaluation unit (SEU)	Integrated	Modular, in separate device	-
Usage	Operation with Pilz or 3rd-party FS controller for operating mode selection and access permission	Operation with Pilz or 3rd-party FS controller for operating mode selection and access permission	Operation with Pilz or 3rd-party FS controller for access permission
Operating modes	Up to 5 safe operating modes	Up to 5 safe operating modes	-

Keep up-to-date on operating mode selector switches PITmode:



Webcode:
web150439

Online information at www.pilz.com

► Selection guide – PITmode

Operating mode selection and access permission system PITmode



PIT m3.2p
machine tools
pictogram



PIT m3 key2hq
mode service



PITreader base unit



PIT m4SEU

Type	Technical features
PIT m3.2p	Operating mode selector switch: keys with digits
PIT m3.2p machine tools pictogram	Operating mode selector switch: keys with digits and pictograms for machine tools
PIT m3.3p	Operating mode selector switch: keys with digits
PIT m3.3p machine tools pictogram	Operating mode selector switch: keys with digits and pictograms for machine tools
PIT m3 key2 mode 1, 2, 3, 4	Transponder key
PIT m3 key2 mode service	Transponder key, service function
PIT m3 key2hq mode 1, 2, 3, 4	Transponder key, high quality
PIT m3 key2hq mode service	Transponder key, high quality, service function
PIT m3.1p terminal set spring load	Spring-loaded terminals
PIT m3.2p terminal set spring load	Spring-loaded terminals
PIT m3.2p screw terminal set angled	Screw terminals, angled
PIT m3.2p screw terminal set	Screw terminals, straight
PITmode fusion	Bundled authentication and functionally safe operating mode selection system
PITreader base unit	Authentication system via RFID reader, base unit
PITreader key adapter h	► 1 x PITreader key adapter horizontal ► 1 x nut
PITreader key adapter v	► 1 x PITreader key adapter vertical ► 1 x nut
PITreader connector spring load	Connector for RFID authentication system: PITreader (402 255)
PIT m4SEU	PITmode safe evaluation unit
PIT m4SEU terminal set spring load	Connector set for safe evaluation unit for operating mode selection: PIT m4SEU (402 250)
PITreader nut set	10 x nuts for PITreader key adapter
PITreader key ye g	GENERIC transponder key for PITreader, yellow plastic, freely configurable
PITreader key ye 1, 2, 3, 4, 5	Transponder key for PITreader, yellow plastic
PITreader key ye 5 service	Transponder key for PITreader, yellow plastic, authorization 5 = service function
PIT es wrench	PITestop installation wrench for PIT es pushbutton and PITreader

	Dimensions (H x W x D) in mm	Certification	Order number
	55 x 98 x 42.3	FCC, TÜV, UL	402 230
	55 x 98 x 42.3	FCC, TÜV, UL	402 231
	55 x 98 x 42.3	FCC, TÜV, UL	402 240
	55 x 98 x 42.3	FCC, TÜV, UL	402 241
▶ Permission 1 ▶ Permission 2 ▶ Permission 3 ▶ Permission 4	-	FCC, TÜV, UL	▶ 402 281 ▶ 402 282 ▶ 402 283 ▶ 402 284
	-	FCC, TÜV, UL	402 285
▶ Permission 1 ▶ Permission 2 ▶ Permission 3 ▶ Permission 4	-	FCC, TÜV, UL	▶ 402 291 ▶ 402 292 ▶ 402 293 ▶ 402 294
	-	FCC, TÜV, UL	402 295
1 set for PIT m3.1p	-	-	402 301
1 set for PIT m3.2p	-	-	402 302
1 set for PIT m3.2p	-	-	402 303
1 set for PIT m3.2p	-	-	402 305
▶ PITreader base unit (402 255) ▶ PIT m4SEU (402 250) ▶ PITreader key adapter h (402 308) ▶ Connector set (402 306)	72.5 x 45 x 45 ¹⁾	CE, UL	402 251
Required accessories: PITreader key adapter	72.5 x 45 x 35	CE, UL	402 255
Required accessories for PITreader base unit (402 255)	-	CE, UL	402 308
Required accessories for PITreader base unit (402 255)	-	CE, UL	402 309
Comprising 1 x 5-pin female connector strip in spring force version, straight cable outlet	-	CE, UL	402 307
	90.5 x 90 x 25	CE, TÜV, UL	402 250
Comprising 1 x 4-pin, 1 x 5-pin, 1 x 8-pin and 1 x 12-pin female connector strip in spring force version, straight cable outlet	-	CE, UL	402 306
	-	CE, UL	402 310
	-	CE, UL	402 260
▶ Permission 1 ▶ Permission 2 ▶ Permission 3 ▶ Permission 4 ▶ Permission 5	-	CE, UL	▶ 402 261 ▶ 402 262 ▶ 402 263 ▶ 402 264 ▶ 402 265
	-	CE, UL	402 269
	-	-	400 222



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¹⁾ Mounting depth to the face of the front plate