

# Barrier boom manipulator type MR (for SPR, SPM)



The manipulator is in the form of metallic box, dimensions 200 x 200 x 100, powder coated in the colour RAL 7032. In standard execution it is designated for indoor installation. The manipulator for outdoor installation is enclosed in additional housing (a box) protecting it against adverse weather conditions (rain, snow, etc.).

**The manipulator is fitted with pushbuttons, switches and lamps, in quantities and configuration suiting the needs (the number of actuators).**

## DESIGNATIONS OF MANIPULATORS IN THE SYSTEM SPR, SPM

Designation consists of letter symbol „MR” and numeric symbols - four digits.

Type	Designation with digits	Meanings of individual digits	
MR	1st digit	0	No signalling of boom barrier position and grid control
		1	Signalling of boom barrier position and grid control
	2nd digit	1	Controlling one pair of gate machines
		2	Controlling two pairs of gate machines
	3rd digit	0	No road signals
		2	Control of 2 road signals
		3	Control of 3 road signals
		4	Control of 4 road signals
	4th digit	1	Multi-pin connector with screwed clamp 2.5mm <sup>2</sup>
		2	Soldered multi-pin connector, 30 pins

**Designations of manipulators for SZOR and SPR, SPM cabinets do differ!**

## INSTALLATION METHOD FOR THE MANIPULATOR MR

Installation method of depends on selected installation site.

Indoors, the manipulator MR may be installed on floor-mounted indoor bracket (dwg to the right), directly on the wall, using suitable bolts, and on the desktop, resting on dedicated base.

Outdoors, the manipulator MR should be installed in outdoor housing (dwg to the right) which is then attached to the support driven to the ground.

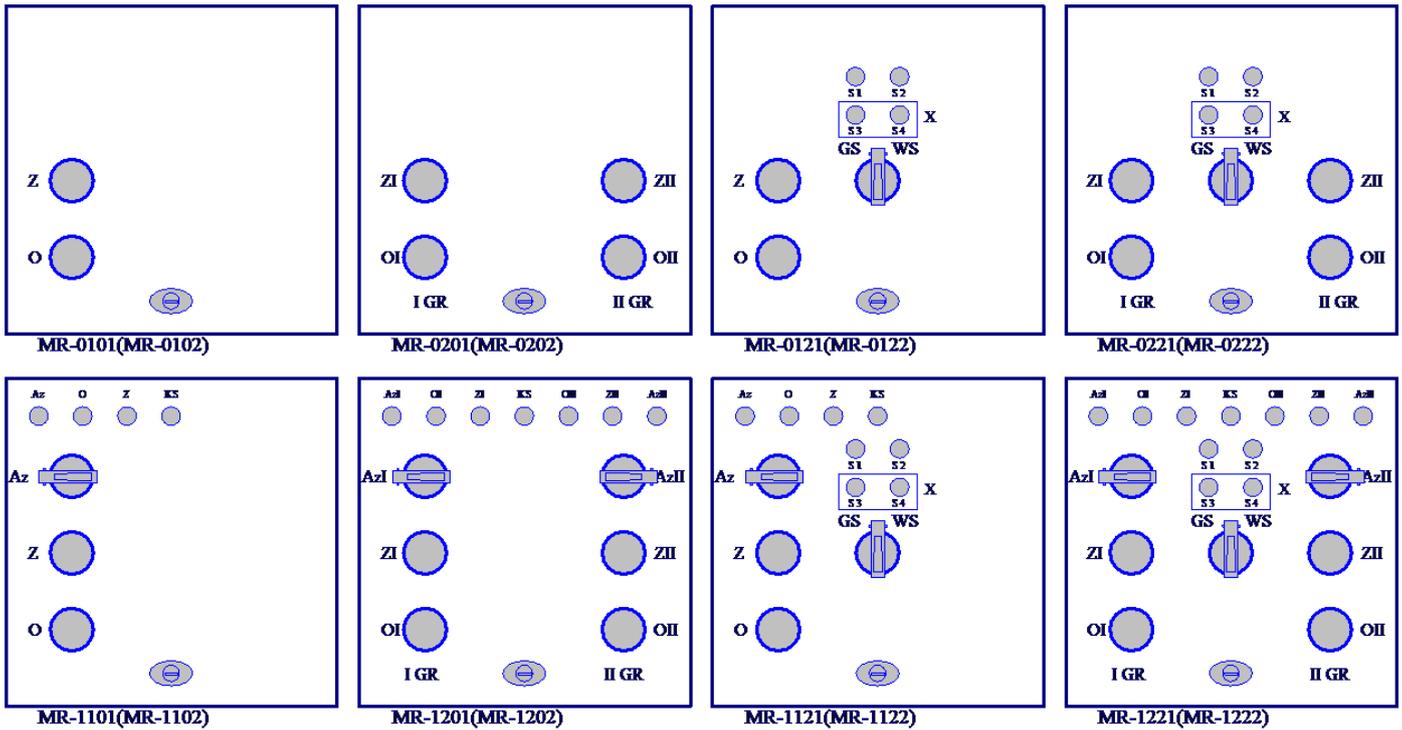


The manipulator on indoor support

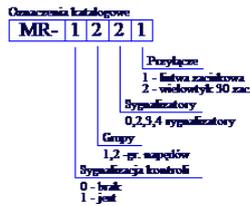


The manipulator in the housing on outdoor support

# LIST OF MANIPULATOR TYPES FOR SPM, SPR



**UWAGI:** MANIPULATORY MR-xxx1 POSIADAJĄ PRZYŁĄCZE W POSTACI LISTWY ZACISKOWEJ  
 MANIPULATORY MR-xxx2 POSIADAJĄ PRZYŁĄCZE W POSTACI WBIŁOWYKU TELEMECHANICZNEGO 30 ZAC.  
 X - MONTOWANIE ŁA 3 i 4 SYGNALIZATORÓW (MR-xxx3, MR-xxx4)



## DESCRIPTIONS OF LAMPS, PUSHBUTTONS AND SWITCHES ON THE MANIPULATOR MR

la	Symbol	Colour	Description	Notes
Lamps	IC	yellow, continuous	230 VAC grid is on	
		yellow, flashing	Signals absence of voltage in 230 VAC grid	
	O	green	Boom barrier top position check	when the light is on, the boom barrier is in its top extreme position.
	Z	red	Boom barrier bottom position check	when the light is on, the boom barrier is in its bottom extreme position.
	AZ	red	Emergency closing of boom barrier circuit check	the lamp emits continuous light when the emergency closing circuit of boom barrier is functional, and goes off when the pushbutton "AZ" is depressed.
Buttons	S	red	Repeater of road signal lights.	The lamp goes off or emits continuous light when signals are on, which means a failure in operation of the signal or the equipment; the number of repeaters corresponds with the number of road signals at level crossing.
			Only flashes when the road signal is on (normal operation).	
Switches	O	green	Designed for opening of boom barriers. In the event that two pairs of gate machines are controlled at the level crossing, roman numerals designations are added, i.e. OI and OII.	unstable button
	Z	red	The system is designed for closing of boom barriers. In the event that two pairs of gate machines are controlled at the level crossing, roman numerals designations are added, i.e. ZI and ZII.	unstable button
Switches	AZ	black	Designed for emergency closing of boom barriers. The lead seal serves to control the use of this switch.	unstable, double throw switch, sealed
	WS/GS	black	Designed for emergency switching on and off of signal lights and boom lights. The lead seal serves to control the use of this switch.	triple throw switch, stable, black colour, sealed