

Enabling Switch – Operating Instruction

(Translation of the Original Operating Instruction)

V1.1 15.03.2016, Art.-Nr.: 615407000



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- The herein specified product properties and technical data do not represent any warranty -

1 About Safety

1.1 Safety Regulations

This operating instruction must be provided to the person who installs the enabling switch. Please read it carefully and keep it for future reference.

1.2 Application

Schlegel enabling switches are electromechanical switch components to enable works in the manual operation mode in dangerous areas of automated production systems. This relates to working steps for which safety functions and protection measures cannot be applied.

The following (inter)national statutory provisions apply to installation, commissioning and regular technical inspections, especially:

- Low-Voltage Directive 2006/95/EG
- Safety Regulations as well as
- Regulations of the Accident Prevention / Safety Rules

The switch MTZU is a three position enabling switch which is designed for the installation in enabling utilities acc. to EN 60204-1.



Enabling switches fulfil a safeguard function



Improper use or manipulation may result in serious injuries of persons

- All relevant safety and health regulations, e.g. guidelines for employer's liability insurance association as well as safety related requirements, being valid for the specific application have to be kept
- Electromechanical enabling switches have to be connected to the control in a way that they comply to the requirements relevant for the safety as to the electrical circuit acc. to the relevant standards
- It is not allowed to trigger dangerous conditions by means of enabling switches themselves. This is only allowed in connection with a control device with independent reset
- The safety function of enabling switches may not be circumvented (contacts bridged), manipulated or made ineffective in another way
- Enabling switches have to be protected against circumventions by the operator
- Enabling switches may only be operated by authorised persons being able to recognise dangerous situations in time and to initiate counter measures immediately
- Each person being within the dangerous area has to carry an own enabling switch
- The enabling switch is no substitute for other safety measures

1.3 Function

- Level 1: Off function, enabling switch not pushed
- Level 2: Enabling function, enabling switch pushed up to the middle position (pressure point)
- Level 3: Off function, enabling switch pushed to the end position
- By releasing the enabling switch or by pushing beyond the pressure point the enabling function is no longer given. By releasing from level 3 to level 1 the enabling function is not becoming active.

1.4 Approvals and Technical Data

Refer to the catalogue information of the respective actuators and contact blocks or to the product configurator under www.schlegel.biz.

2 Product Description

2.1 Construction

The enabling switches consist of variants of actuators and a contact element. The enabling switches are available for front panel mounting or mounted in an enclosure

2.2 Features

The actuators differ in:

- The shape of the actuator
- The illuminator: illuminated / non-illuminated
- The contact blocks are in modular design and are equipped with screw connection

2.3 Actuators and Contact Blocks

Actuators	Ø	Contact Blocks
RS, RS...PILZ, RT, RTAO, RTG, RTM, RTR, RTS, RTW	22	MTZU
RMCS, RMCS...PILZ, RMCT, RMCTAO, RMCTM		
QRS, QRS_SW.PILZ, QRT..., QRTAO..., QRTM...		
RVAT..., RVATL...		
KRT, KRTM, KRS, KRS...PILZ	30	MTZU + MTZU_564
KRJMT, KRJT, KRJVAT, KRJMTLR, KRJVATLR, KRJMTLRL..., KRJVATLRL..., KRJMTM, KRJVATM, KRJMS, KRJMS...PILZ	30,5	
QRJT..., QRJTAO..., QRJTM...	26x26	MTZU_564 + MTZU_564
DXRT..., DXRTU..., DXRTL..., DXRTL..., DXRS40..., DRXSL40..., DXRS28..., DRXSL28... ^{*1)}	30	

3 Assembly and Commissioning

- The operator is responsible for the connection of the part into a complete safety system. The complete system has to be validated acc. to e.g. EN ISO 13849-2
- The operator of the enabling switch has to judge and document any remaining risks

3.1 Assembly Instruction Front-Panel Mounting

1. Provide the required mounting hole in an appropriate mounting plate (refer to relative catalogue drawings)
2. Insert actuator in the cutout
3. Fasten actuator with plastic nut (max. tightening torque to be observed, see fig. 4)
4. Snap-fit contact block to actuator neck by rotary motion
5. (!) Check whether contact block and actuator are snap-fitted correctly
6. Modular contact blocks must first be correctly aligned and snapped into a module holder before snap-fitting them to the actuator (see fig. 1 - 3)
7. Connect contact block

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3.2 Assembly Instruction Enclosure Version

1. Mount lower enclosure part to the appropriate surface
2. See 3.1, steps 2 to 7
3. Insert wiring cable in the enclosure or rather connect it to the enclosure
4. (!) Make sure that the contact blocks used in the enclosure are connected correctly in order to comply with the clearance and creepage distance requirements for insulated enclosures on proper use
5. Close the enclosure
6. (!) Make sure to have the enclosure closed tightly (tighten all screws...)

4 Testing Before First Operation:

- Mechanical test: enabling switch can be pushed (level 1-3), independent reset to the idle position
- Electrical test: enabling switch to be in compliance with function described in 1.3

5 Regular Technical Inspection

- In order to ensure a correct and permanent function a regular control of the electrical and mechanical function is necessary
- Mechanical and electrical functional testing acc. to paragraph 4
- Secure mounting
- No visible manipulation or damages
- No loose connectors
- In case of damages or malfunctions the enabling switch has to be replaced

6 Dismounting

- ⚠ Before dismounting disconnect equipment and device from the mains!

7 Incident Management

- ⚠ Mechanical overload or external impact damage may impair the function of the enabling switch. Make functional test as mentioned under paragraph 5.

8 Further Operating Instructions

- Appropriate connecting cables to be used
- Protect cables against damages
- Two-channel version only for module holder type MHR_5 (2 x MTZU_564 oder MTZU + MTZU_564)
- Module holder type MHR_3 may not be used for the two-channel version, see fig. 1 – fig 3Fig 2

10 EC Declaration of Conformity

Name/Adress of issuer: Georg Schlegel GmbH & Co. KG, Kapellenweg 4, 88525 Dürmentingen

Responsible for documentation: Georg Schlegel GmbH & Co. KG, Kapellenweg 4, 88525 Dürmentingen

Product description: Enabling switch

Type reference: refer to the above table 2.3

The specified products comply with the provisions of the following directives:

Directives:	of:	valid	applied norms:	for:
2006/95/EG	12.12.2006	bis 19.04.2016	EN 60947-5-1:2004+A1:2009 EN60947-5-8:2006	contact blocks, actuators
2014/35/EU	26.02.2014	ab 20.04.2016	EN 60947-5-1:2004/A1:2009 EN60947-5-8:2006	contact blocks, actuators

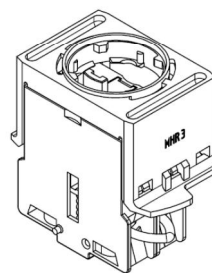


Fig. 1: Assembly of MTZU to the module holder MHR_3

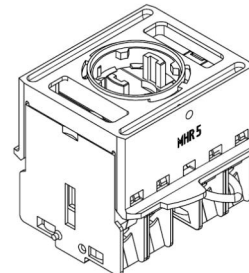


Fig. 2: Assembly of MTZU_564 + MTZU_564 to the module holder MHR_5

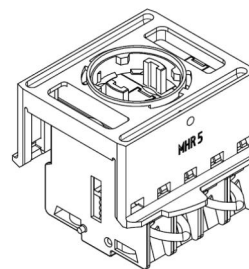


Fig 2: Assembly of MTZU + MTZU_564 to the module holder MHR_5

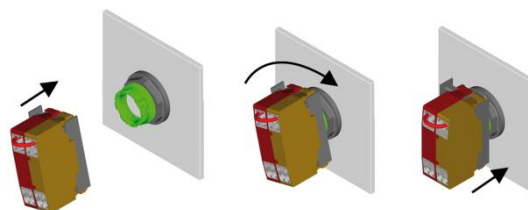


Fig. 3: Correct assembly of the modular contact block MTZU, MTZU_564

9 Disposal

Georg Schlegel GmbH & Co. KG does not take back unuseable or irreparable products. For the disposal of the products the specific valid regulations for the particular country have to be considered.

*1) Schlegel Leipzig components *