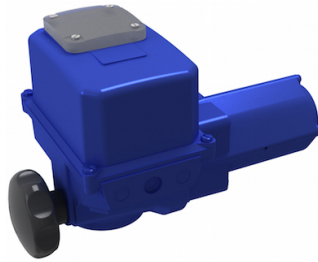


electric actuator with positioner series SQ10

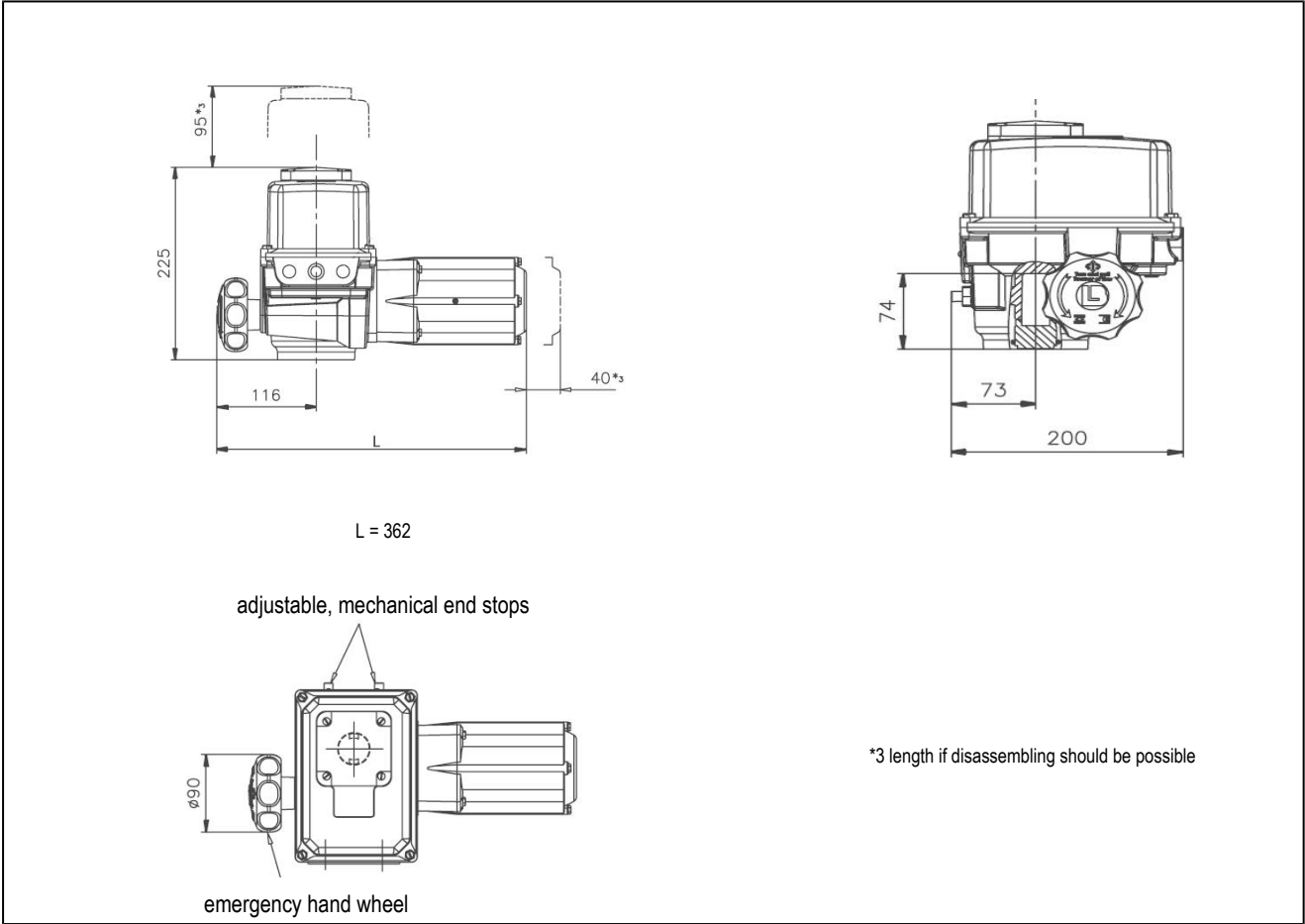


design	electric gear motor with additional emergency hand wheel with intern motor protection and integrated positioner MINIGAM+
flange	F05/F07 according to ISO5211, AF11
materials	body aluminium die-cast painted blue
mounting position	any, preferable in upright position
temperature range	-20...+70°C
electrical data	
type of current	see table "motor data"
electrical connection	above cable gland M20 (enclosed in scope of supply)
duty cycle	S4-50%
protection class	IP67 according to EN 60529 by correctly mounted cable inlet (protection against dust and water jet)
special version	low temperature version, more resistant coating, explosion proof type, other square drives on request, IP68

motor data - single-phase motor, 230V 50Hz

max. torque [Nm]	operating time for 90° [s]	power [W]	speed [1/min]	rated current [A]	starting current [A]	weight [kg]	type
100	35	20	1500	0,5	1	7	SQ10-CB35-Q11-01

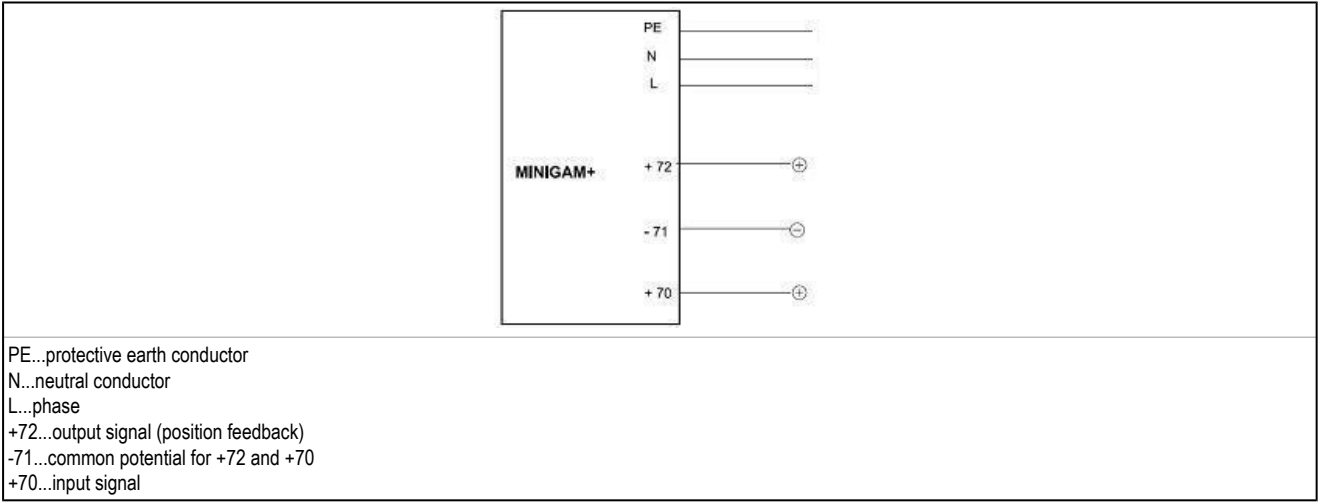
dimensions



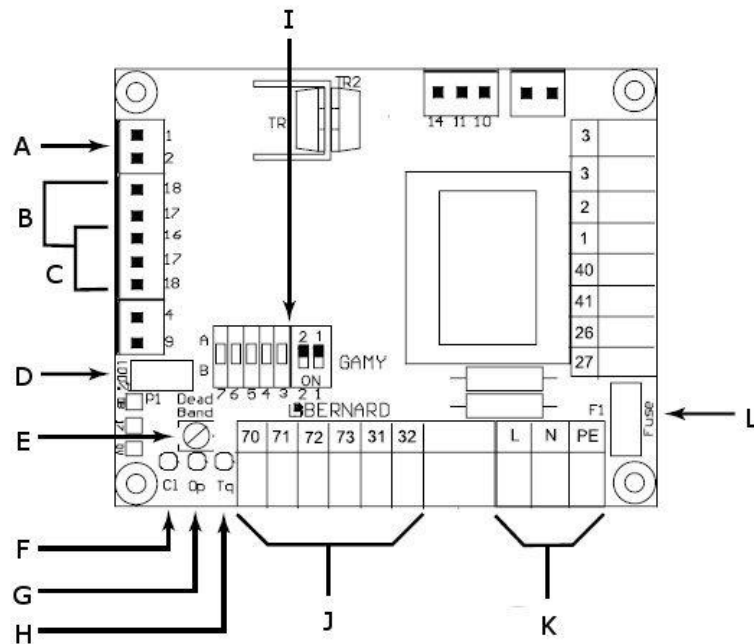
socket machining

square	key	flat
s 9 / 11 / 14 / 16 / 17 / 19	Ød7 14 / 18 / 20 / 22	s 14

diagram - MINIGAM+



layout - MINIGAM+



- A... alarm relay (option)
- B...potentiometer connection for closing in left direction
- C...potentiometer connection for closing in right direction
- D...100% setting
- E...dead band setting
- F...red LED actuator close command
- G...green LED actuator open command
- H...yellow LED torque switch activated (not for series SQ)
- I...configuration switches
- J...in- and outputs as described in the diagram above
- K...power supply
- L...miniature fuse Schurter OMF63 160mA

description - MINIGAM+

general description:

MINIGAM+ controls are used for positioning mode and are controlled by an input signal, which can be 0-20mA, 4-20mA, 0-10V and 2-10V. The position tolerance is under 2%. The dead band can be set to adjust the accuracy of the positioning. There is a potentiometer embedded in order to provide a position feedback signal. In addition, the travel limit switches are lead through to clamps on the MINIGAM+ board (details below).

electric connection:

The signal cables have to be separated from power supply wires (25mm distance min.) to avoid interferences. Further more, the cable must have a shield, which has to be isolated to earth and connected to input +71.

configuration:

a) selection of positioning mode:

There are two switches, which are used to set the positioning mode: switch 5 and switch 6 (according to the "layout"). These have to be positioned on "A".

b) selection of in- and output signal:

in- and output signal	input impedance	switch position			
		1	2	3	4
0...10V	10kΩ	B	B	B	B
2...10V	10kΩ	B	B	B	A
4...20mA	260Ω	A	A	A	A
0...20mA	260Ω	A	A	A	B

rotating direction of the motor:

Switch 7 is used to set the direction of rotation..

Switch 7 positioned on A: clockwise rotation

Switch 7 positioned on B: counter-clockwise rotation

Setting of remote position signal

1. closed position:

Drive the actuator carefully to the closed position.

Connect a milliamperemeter or a millivoltmeter on terminals 71 and 72.

Adjust the potentiometer with a screwdriver until reading 4mA (4-20mA signal), 0 mA (0-20mA signal), 0V (0V-10V signal) or 2V (2-10V signal).

Start an actuator opening and check if the signal current/voltage increases.

2. open position:

Drive the actuator carefully to the open position.

Connect a milliamperemeter or a millivoltmeter on terminals 71 and 72.

Adjust the potentiometer with a screwdriver until reading 20mA (0-20mA or 4-20mA signal) or 10V (0-10V or 2-10V signal).

Now the actuator is ready to operate following an input signal.

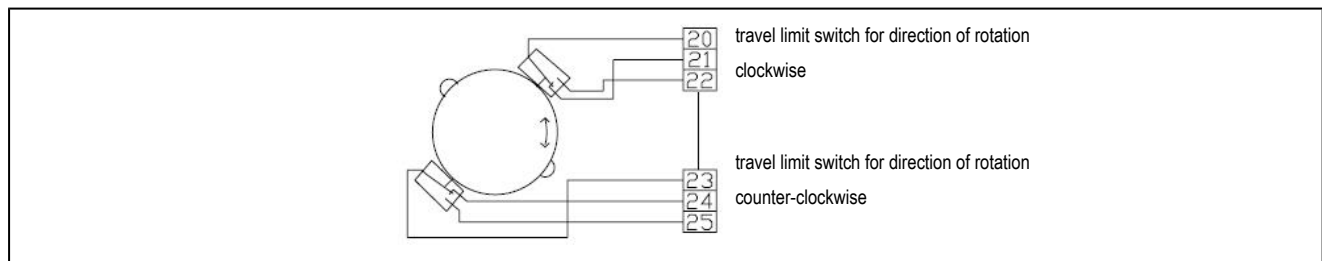
dead band setting:

The dead band should only be adjusted if the actuator is "hunting".

In this case, adjust the dead band potentiometer value until the actuator stops and stays at the desired position.

additional travel limit switches:

The travel limit switches are lead through on clamps on the board to provide an extern indication of the endpositions.



illustrations are non-binding

all designs, configurations, measurements and materials are subject to change without prior notice