



Switchgear

# Made in Germany

## ASA Schalttechnik – we drive the industry

Are you looking for reasonably priced technology that works smoothly, that fully meets your requirements and that offers a long service life with constant high performance as you would expect? And, on top of this, a range of products that is convincing in terms of both breadth and depth? Then we have the good news that you have been waiting for: At ASA Schalttechnik we do everything imaginable so that your wishes become reality.

Our team consists of doers, creative minds and service experts: Experienced professionals who live and breathe quality, who draw on unlimited resources on 2,000 m<sup>2</sup> production space, are dedicated to detail and who get to the heart of things when it comes to control and switching technology. Altogether, refreshingly pragmatic, truly German, straightforward and good.

## We love challenges

Our all-round competence is reflected in our tried and tested standard products that can be delivered at short notice ex-factory. But also in our individual custom-made solutions manufactured in small volumes. Consequently, we are a competent partner and, when the need arises, a flexible manufacturer of niche products, developed and designed in cooperation with our customers.

ASA Schalttechnik proudly stands for this philosophy and delivers every time. As a family-owned enterprise, our products offer quality “Made in Germany”.

## Our product range

Mechanical, magnetic and electronic switchgear for machinery and plant engineering – control and automation technology, fire protection technology, medical technology and much more:

- Limit Switches
- Switchgear
- Foot Switches
- Safety Switches
- Medical switching devices
- Magnetic Switches
- Level Switches
- Special switching devices



## Quality is a continuous process

Or to put it another way, it's a never-ending process – an infinite cycle of testing, analysing, understanding, learning, optimising and documenting. That's life. Our suppliers also support us with this process, as it's the only way to make quality management work. And we make sure to adhere to it: With staying power since 1975.

## Environmental protection is a point of honour

Save electricity, water and heating energy. Avoid waste and plan responsible use of raw materials in production. For our team, ecology is not just hype – it plays an important part in our day-to-day operations, also with regard to RoHS, REACH and recycling. Beneficial to nature, beneficial to us all.

## It's the team that makes the difference

ASA Schalttechnik: People who achieve – hands-on people who think for themselves and who inspire us with their energy, ideas and experience. Whether they work in our production department, in customer relations or in management, our committed staff does everything to achieve best prices, top-of-class products, best delivery times and excellent services. And that's a promise!



 **made**  
 **in**  
 **Germany**

# ASA switchgear

## ASA switchgear

Ranging from standard switchgear to special designs: ASA switchgear are used to control and automate operations and work cycles in all areas of mechanical engineering and plant construction. From a technical aspect, their functions are extremely complex to produce the perfect switching results – positive opening according to DIN VDE 0113 Part 1 and DIN VDE 0660 Part 200.

## Best materials to ensure quality and reliability

ASA switchgear are compact to make the best use of machine and plant space. With protection class IP 54 according to IEC/EN 60529, they work reliably even in extreme environmental conditions.

Please also note the technical details on the following pages.



## Switchgear G line – overview:

### G...U – G...I U – G...F – G...I F

#### The G...U design: Gear shift with 4xM5 fastening from the base.

**G...U** Plastic-encapsulated gear shift with 4xM5 fastening on the base, 2-8 switch inserts with positive opening, 1:28, 1:55, 1:108 standard transmission ratios

#### G...I U design: Gear shift with incremental pulse generator and 4xM5 fastening from the base.

**G...I U** Plastic-encapsulated gear shift with 4xM5 fastening on the base, 2-8 switch inserts with positive opening, incremental pulse generator, 1:28, 1:55, 1:108 standard transmission ratios

#### G...F design: gear shift with 2xM8 flange fastening on the front.

**G...F** Plastic-encapsulated gear shift with 2xM8 fastening on the front, 2-8 switch inserts with positive opening, 1:28, 1:55, 1:108 standard transmission ratios

#### G...I F design: Gear shift with incremental pulse generator and 2xM8 flange fastening on the front.

**G...I F** Plastic-encapsulated gear shift with 2xM8 fastening on the front, 2-8 switch inserts with positive opening, incremental pulse generator, 1:28, 1:55, 1:108 standard transmission ratios

The individual product lines offered by ASA include a wide selection of other switch designs. Can't find a standard solution to match your individual requirements? We look forward to discussing your needs and providing customised special configurations.

# ASA switchgear

## Switch structure

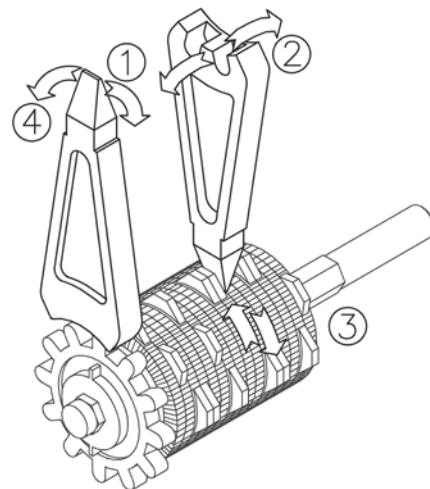
The basic elements of the gear shift, which, depending on the housing design, consists of switch inserts, gears, incremental pulse generator, and gear shift drum, are described in detail in the technical specifications for the gear shift. The following technical details about gear ratios, switch point adjustment, positive opening properties and incremental pulse generators are explained separately and are intended to provide technical information. The switch designs are all listed in the standard types. Many other combinations and features are possible to produce custom switches.

## Gear ratios

In the standard designs with the gear ratios 1:28, 1:55, 1:108 and in the custom designs with special gear ratios the revolutions of the drive shaft are transmitted directly to the spur gears. Depending on the gear ratio, several spur gears are used. The gears then transmit the rotating movement to a drive shaft/gear shift drum. This means that with 28, 55 or 108 revolutions of the drive shaft, the drive shaft/gear shift drum revolves through  $360^\circ$  just once. The shaft ends function as friction bearings in maintenance-free plastic bushings.

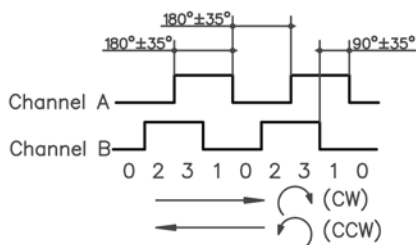
## Switch point adjustment

To adjust the switch point of the contacts, you must loosen the locking device on the back (1) using the the key that is supplied. The cam disks (2 per switch insert) are loosened in the teeth (2) and can now be adjusted in  $4^\circ$ -increments in both directions independently of each other (3). They are interconnected with each other and are thus connected positively with the gear shift drum. When you have completed the rough adjustment, tighten the locking device again with the key (4). To make fine adjustments to the switch point, there are set screws above the switch inserts with which you can adjust the switch point very accurately.



## Positive opening properties

Mechanical limit switches or switchgear with positive opening properties are used mainly in electric circuits with safety features. The corresponding regulations are defined in DIN VDE 0113 Part 1 and DIN VDE 0660 Part 200. Limit switches or switchgear with positive opening properties are also used where humans or machines could be put at risk if a normal limit switch failed to operate. In this case, the NC contact must be positive opening so that in case of a fault the current path is reliably interrupted and this switches off the systems or machine safely. In ASA gear shifts, positive opening switch inserts with snap-action characteristics and single break are used. Consequently, they can be used for safety applications.



## Incremental pulse generator

Another option that we can supply is a switchgear with built-in incremental pulse generator. Incremental pulse generators produce a very specific number of electrical pulses for each revolution of the drive axle. The number of pulses is a measure for a specific distance. A coding disk is firmly mounted on the drive shaft of the pulse generator. The coding disk is split into sections that allow light to pass through and sections that are impervious to light. An LED emits a parallel aligned light beam that shines through the segments of the coding disk. Photo elements receive the modulated light and generate sinusoidal signals. Digitalisation electronics amplify these signals and convert them into rectangular pulses that are directed to outputs A and B. The incremental pulse generator is integrated in the gear chamber of the gear shift. The drive system works via the drive shaft of the gear shift through teeth with a gear ratio of 1:1. In the standard design, 500 pulses per revolution are generated. The encoder is connected via a built-in 5-pole plug-in connection, protection class IP40 according to DIN 40050. The technical values can be found in the technical specifications of the gear shift.

# Switchgear in the G line

## Switchgear in the G line

ASA switchgear in the G line are plastic-encapsulated switchgear in gear shifting design and are a further development of the tried and tested spindle switches in the SP line. The wide range of gear ratios, switch inserts, and switch peripherals make ASA switchgear ideal for use in many different processes and areas. Maximum flexibility is also guaranteed thanks to various switch point adjustment options.

ASA switchgear are sturdy, compact and technically versatile – perfect for a large number of applications and, consequently, for ensuring operational safety of complex systems. Also available as positive opening version according to IEC/EN 60947-5-1 and protection class IP 54 according to IEC/EN 60529.

## Type key for switchgear in the G line, standard designs

Example: **G28 G1 SUZ2 U**

|  |  |
|--|--|
| <p><b>TYPE</b></p> <p>G Gear shift</p>                                   | <p><b>Accessories</b> (Special design)</p> <p>A to G</p>   |
| <p><b>Gear ratio</b></p> <p>28 1:28</p> <p>55 1:55</p> <p>108 1:108</p>  | <p><b>Fastening</b></p> <p>U From below 4 x M5</p> <p>F Flange on front 2 x M8</p> <p>F On front 4 x M5</p>  |
| <p><b>Bearing type</b></p> <p>G friction bearing</p>                     | <p><b>Incremental pulse generator</b></p> <p>I Incremental pulse generator</p>   |
| <p><b>Drive</b></p> <p>1 1 shaft end</p>                                 | <p><b>Number of switch inserts</b></p> <p>2 2 switch inserts</p> <p>3 3 switch inserts</p> <p>4 4 switch inserts</p> <p>5 5 switch inserts</p> <p>6 6 switch inserts</p> <p>7 7 switch inserts</p> <p>8 8 switch inserts</p> |
| <p><b>Switch insert</b></p> <p>SUZ Snap-action with positive opening</p> |  |



## Technical specifications for switchgear in the G line

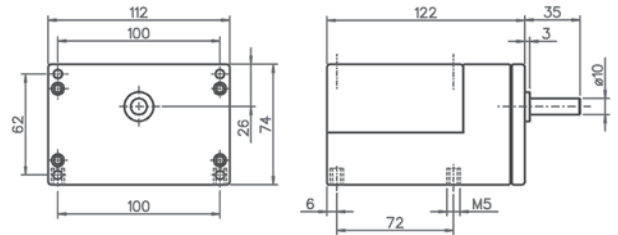
|                               |  |
|-------------------------------|--|
| <b>Regulations:</b>           | ASA gear shifts are manufactured in accordance with the applicable regulations IEC/EN 60204 and IEC/EN 60947-5-1.  |
| <b>Design:</b>                | Plastic-encapsulated switchgear, gear shifting design with screw fastening from below or flange fastening on the front.  |
| <b>Housing:</b>               | Thermoplastic PC glass fibre reinforced-black  |
| <b>Top:</b>                   | Thermoplastic PC, transparent  |
| <b>Drive shaft:</b>           | Niro 1.14104 – Ø 10 x 32 mm long (with G...U design) or<br>Ø 12 x 44 mm long (with G...F design)   |
| <b>Cam disks:</b>             | 28° - Thermoplastic POM natural colour; available as special designs 180° - thermoplastic POM natural colour and 60° - thermoplastic POM natural colour (2 per switch insert)  |
| <b>Switch points:</b>         | adjustable in 4° increments and also with infinite fine adjustment via set screws  |
| <b>Fastening:</b>             | 4 x M5 in base (with G...U design) or 2 x M8 on front (with G...F design); as special design 4 x M5 on front (with G...S design) or fastening flange plate<br><b>Designs G...U, G...F and G...S can be combined.</b> |
| <b>Gear ratios:</b>           | 1:28, 1:55, 1:108 more on request  |
| <b>Connection:</b>            | screw, plug in or soldered   |
| <b>Cable inlet:</b>           | Cable gland PG 13,5 on front; special design on front and/or side, optionally PG9 – PG16, max. 3 drilled holes   |
| <b>Protection class:</b>      | IP 54 according to DIN 40050; as special design IP 65 according to DIN 40050, with incremental pulse generator IP 40 according to DIN 40050  |
| <b>Number of poles:</b>       | 2 -8 changeover contacts   |
| <b>Installation position:</b> | optional   |
| <b>Switching cycles:</b>      | min. 10 million  |
| <b>Working temperature:</b>   | - 20 °C to + 80 °C   |

|                       |   |
|-----------------------|---|
| <b>Switch inserts</b> | <b>SUZ2 – SUZ8</b>                                      |
| Switch type:          | 2-8 changeover contacts, single break, positive opening |
| Switching system:     | Snap-action mechanism                                   |
| Contact material:     | Silver  |
| Voltage:              | max. 250 VAC, 40-60 Hz                                  |
| Current capacity:     | 10A   |

|                                      |                  |
|--------------------------------------|------------------|
| <b>Incremental pulse generator I</b> |                  |
| Output signal (A+B):                 | TTL rectangular  |
| Number of pulses:                    | 500 pulses/360°  |
| max. permitted rpm -1                | 8000             |
| Voltage:                             | 5 V DC (+/- 10%) |
| Power consumption:                   | max. 40 mA       |
| Signal level (A+B):                  | TTL-standard     |

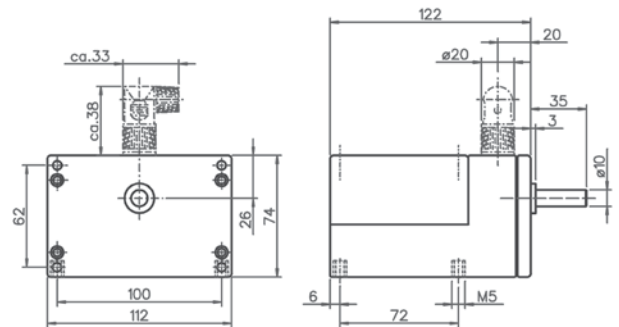
# Switchgear in the G line

## Type table for gear shift G...U, standard selection



| Type           | No.       | Gear ratio | Bearing type     | Switch symbol<br>(times number of switch inserts) | Switch inserts | number Switch inserts | Switching system | Incremental | pulse generator | Fastening Protection class |
|----------------|-----------|------------|------------------|---|----------------|-----------------------|------------------|-------------|-----------------|----------------------------|
| G28 G1 SUZ2 U  | 8327 0007 | 1:28       | Friction bearing |   | SUZ            | 2                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ3 U  | 8327 0008 | 1:28       | Friction bearing |   | SUZ            | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ4 U  | 8327 0009 | 1:28       | Friction bearing |   | SUZ            | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ5 U  | 8327 0010 | 1:28       | Friction bearing |   | SUZ            | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ6 U  | 8327 0011 | 1:28       | Friction bearing |   | SUZ            | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ7 U  | 8327 0012 | 1:28       | Friction bearing |   | SUZ            | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ8 U  | 8327 0013 | 1:28       | Friction bearing |   | SUZ            | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ2 U  | 8327 0014 | 1:55       | Friction bearing |   |                | SUZ                   | 2                | Snap-action | —               | 4 x M5                     |
| G55 G1 SUZ3 U  | 8327 0015 | 1:55       | Friction bearing | SUZ   |                | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ4 U  | 8327 0016 | 1:55       | Friction bearing | SUZ   |                | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ5 U  | 8327 0017 | 1:55       | Friction bearing | SUZ   |                | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ6 U  | 8327 0018 | 1:55       | Friction bearing | SUZ   |                | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ7 U  | 8327 0019 | 1:55       | Friction bearing | SUZ   |                | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ8 U  | 8327 0020 | 1:55       | Friction bearing | SUZ   |                | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ2 U | 8327 0021 | 1:108      | Friction bearing |   |                | SUZ                   | 2                | Snap-action | —               | 4 x M5                     |
| G108 G1 SUZ3 U | 8327 0022 | 1:108      | Friction bearing |   | SUZ            | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ4 U | 8327 0023 | 1:108      | Friction bearing |   | SUZ            | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ5 U | 8327 0024 | 1:108      | Friction bearing |   | SUZ            | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ6 U | 8327 0025 | 1:108      | Friction bearing |   | SUZ            | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ7 U | 8327 0026 | 1:108      | Friction bearing |   | SUZ            | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ8 U | 8327 0027 | 1:108      | Friction bearing |   | SUZ            | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |

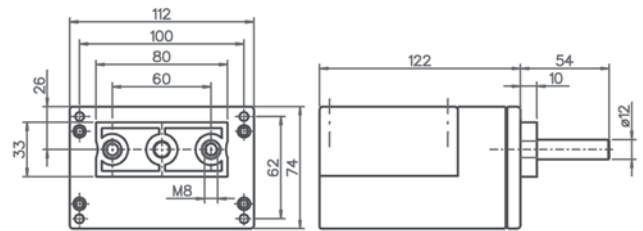
## Type table for gear shift G...I U, standard selection



| Type             | No.       | Gear ratio | Bearing type     | Switch symbol<br>(times number of switch inserts)                                   | Switch inserts  | number Switch inserts | Switching system | Incremental | pulse generator | Fastening Protection class |
|------------------|-----------|------------|------------------|---|---|-----------------------|------------------|-------------|-----------------|----------------------------|
| G28 G1 SUZ2 I U  | 8327 0107 | 1:28       | Friction bearing |  | SUZ   | 2                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ3 I U  | 8327 0108 | 1:28       | Friction bearing |   | SUZ   | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ4 I U  | 8327 0109 | 1:28       | Friction bearing |   | SUZ   | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ5 I U  | 8327 0110 | 1:28       | Friction bearing |   | SUZ   | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ6 I U  | 8327 0111 | 1:28       | Friction bearing |   | SUZ   | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ7 I U  | 8327 0112 | 1:28       | Friction bearing |   | SUZ   | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ8 I U  | 8327 0113 | 1:28       | Friction bearing |   | SUZ   | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ2 I U  | 8327 0114 | 1:55       | Friction bearing |   |  | SUZ                   | 2                | Snap-action | ●               | 4 x M5                     |
| G55 G1 SUZ3 I U  | 8327 0115 | 1:55       | Friction bearing | SUZ   |   | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ4 I U  | 8327 0116 | 1:55       | Friction bearing | SUZ   |   | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ5 I U  | 8327 0117 | 1:55       | Friction bearing | SUZ   |   | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ6 I U  | 8327 0118 | 1:55       | Friction bearing | SUZ   |   | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ7 I U  | 8327 0119 | 1:55       | Friction bearing | SUZ   |   | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ8 I U  | 8327 0120 | 1:55       | Friction bearing | SUZ   |   | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ2 I U | 8327 0121 | 1:108      | Friction bearing |  |   | SUZ                   | 2                | Snap-action | ●               | 4 x M5                     |
| G108 G1 SUZ3 I U | 8327 0122 | 1:108      | Friction bearing |   | SUZ   | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ4 I U | 8327 0123 | 1:108      | Friction bearing |   | SUZ   | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ5 I U | 8327 0124 | 1:108      | Friction bearing |   | SUZ   | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ6 I U | 8327 0125 | 1:108      | Friction bearing |   | SUZ   | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ7 I U | 8327 0126 | 1:108      | Friction bearing |   | SUZ   | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ8 I U | 8327 0127 | 1:108      | Friction bearing |   | SUZ   | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |

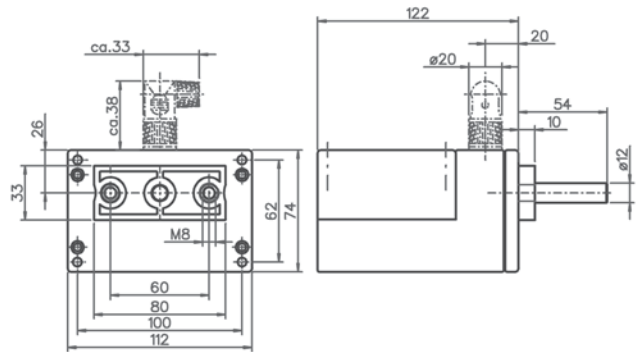
# Switchgear in the G line

## Type table for gear shift G...F, standard selection



| Type           | No.       | Gear ratio | Bearing type     | Switch symbol<br>(times number of switch inserts) | Switch inserts | number Switch inserts | Switching system | Incremental | pulse generator | Fastening Protection class |
|----------------|-----------|------------|------------------|---|----------------|-----------------------|------------------|-------------|-----------------|----------------------------|
| G28 G1 SUZ2 F  | 8327 0207 | 1:28       | Friction bearing |   | SUZ            | 2                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ3 F  | 8327 0208 | 1:28       | Friction bearing |   | SUZ            | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ4 F  | 8327 0209 | 1:28       | Friction bearing |   | SUZ            | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ5 F  | 8327 0210 | 1:28       | Friction bearing |   | SUZ            | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ6 F  | 8327 0211 | 1:28       | Friction bearing |   | SUZ            | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ7 F  | 8327 0212 | 1:28       | Friction bearing |   | SUZ            | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G28 G1 SUZ8 F  | 8327 0213 | 1:28       | Friction bearing |   | SUZ            | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ2 F  | 8327 0214 | 1:55       | Friction bearing |   |                | SUZ                   | 2                | Snap-action | —               | 4 x M5                     |
| G55 G1 SUZ3 F  | 8327 0215 | 1:55       | Friction bearing | SUZ   |                | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ4 F  | 8327 0216 | 1:55       | Friction bearing | SUZ   |                | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ5 F  | 8327 0217 | 1:55       | Friction bearing | SUZ   |                | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ6 F  | 8327 0218 | 1:55       | Friction bearing | SUZ   |                | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ7 F  | 8327 0219 | 1:55       | Friction bearing | SUZ   |                | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G55 G1 SUZ8 F  | 8327 0220 | 1:55       | Friction bearing | SUZ   |                | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ2 F | 8327 0221 | 1:108      | Friction bearing |   |                | SUZ                   | 2                | Snap-action | —               | 4 x M5                     |
| G108 G1 SUZ3 F | 8327 0222 | 1:108      | Friction bearing |   | SUZ            | 3                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ4 F | 8327 0223 | 1:108      | Friction bearing |   | SUZ            | 4                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ5 F | 8327 0224 | 1:108      | Friction bearing |   | SUZ            | 5                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ6 F | 8327 0225 | 1:108      | Friction bearing |   | SUZ            | 6                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ7 F | 8327 0226 | 1:108      | Friction bearing |   | SUZ            | 7                     | Snap-action      | —           | 4 x M5          | IP54                       |
| G108 G1 SUZ8 F | 8327 0227 | 1:108      | Friction bearing |   | SUZ            | 8                     | Snap-action      | —           | 4 x M5          | IP54                       |

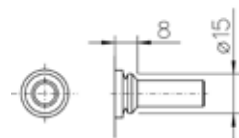
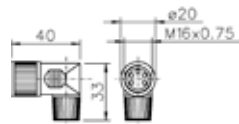
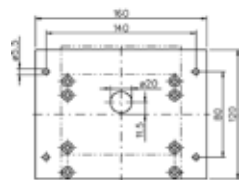
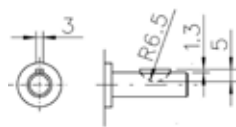
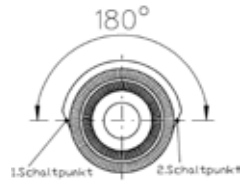
## Type table for gear shift G...I F, standard selection



| Type             | No.       | Gear ratio | Bearing type     | Switch symbol (times number of switch inserts) | Switch inserts | number Switch inserts | Switching system | Incremental | pulse generator | Fastening Protection class |
|------------------|-----------|------------|------------------|--|----------------|-----------------------|------------------|-------------|-----------------|----------------------------|
| G28 G1 SUZ2 I F  | 8327 0307 | 1:28       | Friction bearing |  | SUZ            | 2                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ3 I F  | 8327 0308 | 1:28       | Friction bearing |  | SUZ            | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ4 I F  | 8327 0309 | 1:28       | Friction bearing |  | SUZ            | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ5 I F  | 8327 0310 | 1:28       | Friction bearing |  | SUZ            | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ6 I F  | 8327 0311 | 1:28       | Friction bearing |  | SUZ            | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ7 I F  | 8327 0312 | 1:28       | Friction bearing |  | SUZ            | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G28 G1 SUZ8 I F  | 8327 0313 | 1:28       | Friction bearing |  | SUZ            | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ2 I F  | 8327 0314 | 1:55       | Friction bearing |  |                | SUZ                   | 2                | Snap-action | ●               | 4 x M5                     |
| G55 G1 SUZ3 I F  | 8327 0315 | 1:55       | Friction bearing | SUZ  |                | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ4 I F  | 8327 0316 | 1:55       | Friction bearing | SUZ  |                | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ5 I F  | 8327 0317 | 1:55       | Friction bearing | SUZ  |                | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ6 I F  | 8327 0318 | 1:55       | Friction bearing | SUZ  |                | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ7 I F  | 8327 0319 | 1:55       | Friction bearing | SUZ  |                | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G55 G1 SUZ8 I F  | 8327 0320 | 1:55       | Friction bearing | SUZ  |                | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ2 I F | 8327 0321 | 1:108      | Friction bearing |  |                | SUZ                   | 2                | Snap-action | ●               | 4 x M5                     |
| G108 G1 SUZ3 I F | 8327 0322 | 1:108      | Friction bearing |  | SUZ            | 3                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ4 I F | 8327 0323 | 1:108      | Friction bearing |  | SUZ            | 4                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ5 I F | 8327 0324 | 1:108      | Friction bearing |  | SUZ            | 5                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ6 I F | 8327 0325 | 1:108      | Friction bearing |  | SUZ            | 6                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ7 I F | 8327 0326 | 1:108      | Friction bearing |  | SUZ            | 7                     | Snap-action      | ●           | 4 x M5          | IP54                       |
| G108 G1 SUZ8 I F | 8327 0327 | 1:108      | Friction bearing |  | SUZ            | 8                     | Snap-action      | ●           | 4 x M5          | IP54                       |

# Switchgear in the G line

## Accessories for gear shift G



| Shapes   | Technical specifications  |
|----------|---|
| <b>A</b> | <p><b>Cam disk 180°</b><br/>                     Material: POM-natural colour<br/>                     1 complete set (2 pieces) per switch unit</p>  |
| <b>B</b> | <p><b>Drive shaft with groove and woodruff key</b><br/>                     Material: C45K<br/>                     Drive shaft with groove and woodruff key 3 x 5 DIN 6888</p>   |
| <b>D</b> | <p><b>Fastening flange plate</b><br/>                     Material: St 37 powder-coated black similar to RAL9004<br/>                     Fastening flange plate suitable for base or front assembly with fastening screws</p>                            |
| <b>E</b> | <p><b>Angled socket</b><br/>                     Material: PETP<br/>                     Angled socket as mating connector for male socket (incremental pulse generator)</p>  |
| <b>G</b> | <p><b>Sealing ring</b><br/>                     in accordance with protection class IP65 according to DIN 40050<br/>                     To comply with protection class IP65 according to DIN 40050, a sealing ring is installed on the drive shaft.</p> |

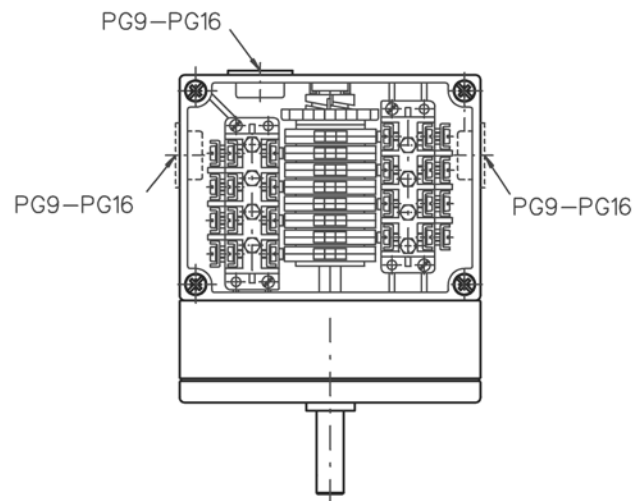
## Information for the special designs in the G line

ASA supplies special designs for special applications. Here is some information:

### Threaded holes in special design

Threaded holes to feed in the cable deviate from the standard design: In the special design, the hole is on the front and/or side, optionally PG 9 – PG 16, max. 3 holes.

Please state the exact installation position when placing your order.



### Gear ratios in special design

In special designs we offer gear ratios such as 3:1, 1:202, 1:247. More on request.

Please state your exact requirements when placing your order.



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