Electrical position indicators and combi switchboxes

for linear and quarter turn valves

AS-Interface

Programmable

Ex

NAMUR

Proximity switches

Microswitches

GEMÜ® VALVES, MEASUREMENT AND CONTROL SYSTEMS

Instrumentation and accessories

Position indicators and combi switchboxes are integrated components of an intelligent process automation system

Intelligent process automation follows a comprehensive approach which comprises the upper control levels as well as also innovative components and valves at the field level. GEMÜ has been offering valves and precisely tuned valve instrumentation, controllers, sensor systems, valve actuators, and system solutions for process automation for some years now. It could be said that you take care of your process, we take care of the component interfaces. Moreover, we believe that the most reliable and safest monitoring of valves always take place directly at the valve itself.

Linear type valves and quarter turn valves are frequently used with position indicators. GEMÜ provides the most varied designs to suit any automation concept. The product range not only comprises simple switches but also intelligent designs equipped with timesaving automated initialisation. NAMUR, 2-wire and explosion proof versions are also available. Advanced combi switchboxes may be used in field bus networks such as AS-interface and DeviceNet.

Overview

For linear valves

Combi switchboxes and electrical position indicators for pneumatically operated linear valves

Our new devices detect the valve stroke in any installation position without play and free of tension. The sensor base of the series 1234, 1235, and 4222 is positively connected by means of spring preload to the respective valve spindle, so that possible tangential forces of the valve actuator do not negatively affect the position indicator. The position indicators can be quickly and easily assembled and are safe and uncomplicated to handle.

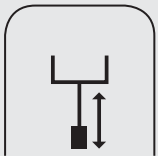These position indicators can be adapted to the pneumatic actuators of GEMÜ globe and diaphragm valves. Due to its special design, the GEMÜ 9415 quarter turn actuator may likewise be combined with this type of position indicator.

Electrical position indicators for linear valves / Selection criteria	Combi switchboxes			Programmable		For explosion-proof areas				With proximity switches		With microswitches	
	4222	4226 (Ex)	4216 (Ex)	1234	1235/ 1236	1205 (Ex)	1211 (Ex)	1231 (Ex)	1215 (Ex)	1214	1232	1201	1230
Valve stroke (in mm)	3 - 30 6 - 50 9 - 75	2 - 70		1 - 10	3 - 30 6 - 50 9 - 75	2 - 70	2 - 70	2 - 20		2 - 70	2 - 20	2 - 70	2 - 20
Connection	M12			M12	M12	Cable gland	Cable gland	Cable gland	Cable gland	M12 option	M12 option	Cable gland	M12 option
Programmable	●			●	●								
Mechanically adjustable		●	●			●	●	●		●	●	●	●
Field bus capable	●			●	●					●	●		
Integrated valve switching system via pilot valve	●	●	●										
Optical position indication via LEDs	●			●	●					●	●		●
Optical position indication, mechanical									●				
Feedback OPEN or CLOSED									●				
Feedback OPEN and/or CLOSED	●	●	●	●	●	●	●	●		●	●	●	●
	(p. 4)	(p. 5)		(p. 6)	(p. 7)	(p. 8)		(p. 9)		(p. 10)		(p. 11)	

Combi switchboxes

with integrated pilot valves, for linear valves

In comparison to standard electrical position indicators these combi switchboxes have additional integrated pilot valves. The fully electronic versions GEMÜ 4222 and GEMÜ 4221 have an analogue travel sensor system and automatic initialisation by means of **speed**-AP function. The two Atex versions GEMÜ 4226 and GEMÜ 4216 have mechanically adjustable proximity switches. In all versions the pilot valve can be operated manually.

GEMÜ 4222

- 1 or 2 integrated pilot valves
- Easy setting of end positions by automatic initialisation (**speed**-AP function)
- Adjustable end positions tolerances
- Integrated analogue travel sensor system
- For 3 – 30 mm, 6 – 50 mm, 9 – 75 mm valve strokes
- Simple and fast mounting
- No need to open the housing cover for commissioning
- Can be retrofitted to GEMÜ valves or other makes
- Optical position indication via LEDs
- Option: field bus connection AS-Interface, DeviceNet

Rated voltage:	24 V DC (standard version)
Current consumption:	typ. 100 mA (standard version)
Protection class:	IP 65 to EN 60529
Flow capability:	100 l/min
Temperature range:	0 to 50°C
Field bus:	AS-interface, DeviceNet
Housing cover:	Polysulphone or PMMA (UV resistant)
Housing base:	Black powder coated aluminium or stainless steel 1.4301
Connection:	M12 connector
Dimensions:	Ø 87 x 76 mm (without electrical connection and mounting kit)

GEMÜ 4222
with aluminium base

GEMÜ 4222
with stainless steel base

GEMÜ 4222
with GEMÜ 514

GEMÜ 4222
with GEMÜ 650

GEMÜ 4226

- Can be retrofitted to GEMÜ valves or other makes

- Proximity switches individually continuously and precisely adjustable via threaded spindles

- Integrated, intrinsically safe pilot valve

- Suitable for single acting actuators

ATEX class:	(Ex) II 2G IIB X
	(Ex) EEx II 2G ia IIB T6-T4
	or
	(Ex) II 3G II X
	(Ex) EEx II 3G na IIB T4 X
Switch:	Inductive proximity switch
Rated voltage:	8V NAMUR (2-wire) or 24V DC (3-wire)
Output signal:	NAMUR (2-wire) Make contact PNP (3-wire)
Protection class:	IP 65 to EN 60529
Flow capability:	8 l/min (higher air output on request)
Temperature range:	-10 to 50°C
Housing cover:	Polysulphone or PMMA (UV resistant)
Housing base:	Stainless steel 1.4301
Connection:	M16 cable gland
Dimensions:	Ø 87 x 88 mm (without electrical connection and mounting kit)

GEMÜ 4226

GEMÜ 4216

- Can be retrofitted to GEMÜ valves or other makes

- Proximity switches individually continuously and precisely adjustable via threaded spindles

- Integrated, intrinsically safe pilot valve

- Suitable for single and double acting actuators

|	
ATEX class:	(Ex) II 2G IIB X
	(Ex) EEx II 2G ia IIB T6-T4
	or
	(Ex) II 3G II X
	(Ex) EEx II 3G na IIB T4 X
Switch:	Inductive proximity switch
Rated voltage:	8V NAMUR (2-wire) or 24V DC (3-wire)
Output signal:	NAMUR (2-wire) Make contact PNP (3-wire)
Protection class:	IP 65 to EN 60529
Flow capability:	588 l/min
Temperature range:	-10 to 50°C
Housing cover:	Polysulphone
Housing base:	Stainless steel 1.4301
Connection:	M16 cable gland
Dimensions:	See technical data sheet

GEMÜ 4216
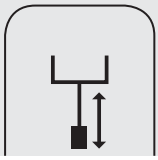
Programmable electrical position indicators

with automatic initialisation, for linear valves

The latest generation of electrical position indicators considerably reduces commissioning times in a plant. The intelligent, microprocessor controlled **speed**^{-AP} function enables even large plants with hundreds of devices to be initialised and ready for operation in only a couple of minutes. The automated programming of end positions is either directly controlled on site or remotely controlled by means of a digital programming input.

- Easy setting of end positions by automatic initialisation (**speed**^{-AP} function)
- Adjustable end position tolerances
- Contactless Long-Life travel sensor proved in millions of cycles
- Simple and fast mounting
- No need to open the housing cover for commissioning
- Suitable for single and double acting actuators
- Can be retrofitted to GEMÜ valves or other makes
- Optical position indication via LEDs
- Option: field bus connection AS-interface

GEMÜ 1234

Measuring range:	1 – 10 mm
Rated voltage:	24 V DC (standard version)
Current consumption:	typ. 35 mA (standard version)
Protection class:	IP 65 to DIN 60529
Temperature range:	-10 to 70°C
Field bus:	AS-Interface
Body material :	Black PSU
Connection:	M12 connector
Dimensions:	☐ 32 x 65 mm (without electrical connection and mounting kit)

GEMÜ 1234

GEMÜ 1234
with GEMÜ 605

GEMÜ 1234
with GEMÜ 550
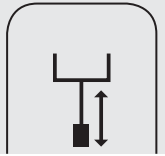
GEMÜ 1235/1236

Measuring range:	3 – 30 mm, 6 – 50 mm, 9 – 75 mm
Rated voltage:	24 V DC (standard version)
Current consumption:	typ. 70 mA
Protection class:	IP 65 to DIN 60529
Temperature range:	-10 to 70°C
Housing cover:	PP transparent
Housing base:	Black PVDF (GEMÜ 1235) or stainless steel 1.4301 (GEMÜ 1236)
Connection:	M12 connector
Dimensions:	Ø 60 x 57 mm (without electrical connection and mounting kit)

GEMÜ 1235
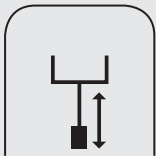with GEMÜ 690

GEMÜ 1235

GEMÜ 1236

GEMÜ 1235
with GEMÜ 554 actuator

GEMÜ 1236
with GEMÜ 550

Position indicators for explosion-proof areas

for linear valves

GEMÜ 1205

EC type examination certificate to ATEX directive 94/9 EC

Suitable for single and double acting actuators

Setting range:	2 – 70 mm continuous
ATEX class:	Ex II 2G EEx ed IIC T6
	Ex II 2D IP 65 T 80°C
Switch:	Built in electro-mechanical switches in a flameproof enclosure
Make:	Bartec
Rated voltage:	250 V AC/DC, 30 V AC/DC
Output current DC:	0.15 A at 250 V, 4A at 30 V
Output current AC:	4 A at 30/250 V
Protection class:	IP 65 to EN 60529
Temperature range:	-30 to 70°C
Housing:	Aluminium diecasting
Connection:	PG 20 cable gland
Dimensions:	Ø 100 x 127 mm (without electrical connection and mounting kit)

GEMÜ 1205

GEMÜ 1211

EC type examination certificate to ATEX directive 94/9 EC

Suitable for single and double acting actuators

Setting range:	2 – 70 mm continuous
ATEX class:	Ex II 2G EEx ib IIC/IIB T6
	Ex II 2D T80°C IP 65 –20 to 60°C
Switch:	Inductive proximity switches to NAMUR DIN 19234 / EN 50227
Make:	Pepperl + Fuchs
Rated voltage:	8 V Namur
Output current:	< 1 mA damped, > 3 mA undamped
Protection class:	IP 65 to EN 60529
Temperature range:	-20 to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polyamide (PA 6.6)
Connection:	PG 13.5 cable gland
Dimensions:	Ø 100 x 125 mm (without electrical connection and mounting kit)

GEMÜ 1211

GEMÜ 1231

EC type examination certificate to ATEX directive 94/9 EC

Suitable for single and double acting actuators

Setting range:	2 – 20 mm continuous
ATEX class:	⟨Ex⟩ Ex II 2G EEx ia IIC/IIB T6
	⟨Ex⟩ Ex II 2D T80°C IP 65 –20 to 60°C
Switch:	Inductive proximity switches to NAMUR DIN 19234 / EN 50227
Make:	Pepperl + Fuchs
Rated voltage:	8 V Namur
Output current:	< 1 mA damped, > 3 mA undamped
Protection class:	IP 65 to EN 60529
Temperature range:	-20 to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polypropylene (PP-R-GR glass fibre reinforced)
Connection:	M16 cable gland
Dimensions:	☐ 50 x 72 mm (without electrical connection and mounting kit)

GEMÜ 1215

GEMÜ 1215 has a microswitch which indicates the open position of the valve. The electrical position indicator can only be used for valves with "normally closed (NC)" control function.

ATEX class:	⟨Ex⟩ Ex II 2G IIB T6 X
Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact
Contacts:	Gold plated silver
Rated voltage:	250 V AC / 24 V DC
On-load current:	4 A
Protection class:	IP 65 to EN 60529
Temperature range:	-15 to 60°C
Housing:	Polyamide (PA 6.6)
Connection:	PG 11 cable gland
Dimensions:	☐ 30 x 54 mm (without electrical connection and mounting kit)

GEMÜ 1231

GEMÜ 1215

GEMÜ 1215
with GEMÜ 554
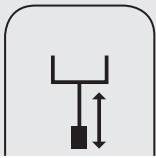
Position indicators with proximity switches

Contactless 3-wire proximity switches for end position detection, for linear valves

GEMÜ 1214 and 1232 are fitted with one or two contactless proximity switches for end position detection. These switches are individually continuously adjustable via threaded spindles.

GEMÜ 1214

Measuring range:	3 – 70 mm continuous
Switch:	Inductive 3-wire proximity switch, PNP make contact
Rated voltage:	10 – 30 V DC
Switching current:	< 200 mA
Protection class:	IP 65 to EN 60529
Temperature range:	-20 to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polyamide (PA 6.6)
Connection:	PG 13.5 cable gland (for other connections see data sheet)
Dimensions:	Ø 100 x 127 mm (without electrical connection and mounting kit)

GEMÜ 1232

Measuring range:	2 – 20 mm continuous
Switch:	Inductive 3-wire proximity switch, PNP make contact
Rated voltage:	10 – 30 V DC
Switching current:	< 200 mA
Protection class:	IP 65 to EN 60529
Temperature range:	-20 to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polypropylene (PP-R-GR glass fibre reinforced)
Connection:	M 16 cable gland (for other connections see data sheet)
Dimensions:	□ 50 x 68 mm (without electrical connection and mounting kit)

Option: optical position indication via LEDs available.

GEMÜ 1214

GEMÜ 1232

GEMÜ 1232
with GEMÜ 514

Position indicators with microswitches

Microswitches for end position detection, for linear valves

The most economical way to detect the valve position is with GEMÜ 1201 and GEMÜ 1230 position indicators with micro-switches.

They are available with one or two microswitches as standard. The microswitches are individually continuously adjustable via threaded spindles. The devices are suitable for single or double acting actuators.

GEMÜ 1201

Measuring range:	2 – 70 mm continuous
Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact
Rated voltage:	28 V DC, 250 V AC
On-load current DC:	5 mA – 5A
On-load current AC:	100 mA – 8A
Protection class:	IP 65 to EN 60529
Temperature range:	-20 to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polypropylene (PP-R-GR glass fibre reinforced)
Connection:	PG 13.5 cable gland
Dimensions:	Ø 100 x 127 mm (without electrical connection and mounting kit)

GEMÜ 1230

|	
Measuring range:	2 – 20 mm continuous
Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact
Contacts:	Gold plated silver
Rated voltage:	24 V DC, 250 V AC
On-load current DC:	4 A
On-load current AC:	2.5 A
Protection class:	IP 65 to EN 60529
Temperature range:	–20°C to 60°C
Housing cover:	Polysulphone (PSU)
Housing base:	Polypropylene (PP-R-GR glass fibre reinforced)
Connection:	M 16 cable gland
Dimensions:	□ 50 x 68 mm (without electrical connection and mounting kit)
Approvals:	UL recognized SCA C22.2
Option:	Optical position indication via LEDs

GEMÜ 1201

GEMÜ 1201
with GEMÜ 520

GEMÜ 1230
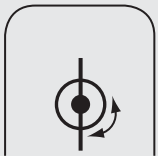
For quarter turn valves

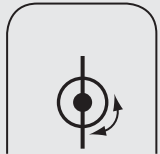## Electrical position indicators for pneumatically operated quarter turn valves

Various electrical position indicators are available for ball valves and butterfly valves. The devices detect the valve position in any mounting position without play and strain. They enable fast and easy mounting and safe and uncomplicated handling.

The special design of the GEMÜ 9415 quarter turn actuator enables its combination with electrical position indicators for linear actuators.

GEMÜ 4221
with DR/SC actuator

Electrical position indicators for quarter turn valves	Combi switchbox	For explosion-proof areas ⟨Ex⟩		With proximity switches		With microswitches				
Selection criteria	4221	SM-N2	ES2	1229	ES2	1227	ES2	PCR	1226	1225
Travel range	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°	0 – 90°
Connection (5-pin)	M12	M 20 x 1.5	M 20 x 1.5	M 20 x 1.5	M 20 x 1.5	M 20 x 1.5	M 20 x 1.5	M 20 x 1.5	PG 13.5	PG 13.5
Programmable	●									
Mechanically adjustable		●	●	●	●	●	●	●	●	●
Field bus capable	●									
Integrated valve switching system via pilot valve	●									
Optical position indication via LEDs	●	●	option	●	option	●	option	option		
Optical position indication, mechanical		●	option	●	option	●	option	option		●
Feedback OPEN or CLOSED		●		●		●			●	●
Feedback OPEN and/or CLOSED	●	●	●	●	●	●	●	●	●	●
	(p. 13)	(p. 14)	(p. 15)	(p. 16)		(p. 17)		(p. 18)		(p. 19)

Combi switchboxes

for pneumatically operated quarter turn valves

The GEMÜ 4221 combi switchbox operates with one or two integrated 3/2-way pilot valves, an analogue integrated travel sensor system and a microprocessor controlled electronic system for end position feedback.

GEMÜ 4221

- Easy setting of end positions by automatic or manual initialisation
- No need to open the housing for commissioning
- Integrated 3/2-way pilot valves for single or double acting actuators
- Manual operation of the pilot valve possible
- Integrated travel and system control
- Additional optical position indication via LEDs

Rated voltage:	24 V DC (standard version)
Current consumption:	typ. 100 mA (standard version)
Protection class:	IP 65 to EN 60529
Flow capability:	100 l/min
Temperature range:	0 to 50°C
Field bus:	AS-interface, DeviceNet
Housing cover:	Polysulphone or PMMA (UV resistant)
Housing base:	Black powder coated aluminium or stainless steel 1.4301
Connection:	M12 connector
Dimensions:	Ø 87 x 76 mm (without electrical connection and mounting kit)

GEMÜ 4221 with GEMÜ 410
plastic butterfly valve

GEMÜ 4221 with GEMÜ 451
plastic butterfly valve

GEMÜ 4221
with stainless steel base
and AS-Interface connector

GEMÜ 4221
with aluminium base

Position indicators for explosion-proof areas

for quarter turn valves

The SM-N2 and ES2 EEx i electrical position indicators can be used in explosion endangered areas. They are suitable for GEMÜ DR/SC and GEMÜ ADA/ASR single or double acting actuators and for other makes.

- Easy setting of the trip cams
- Damped or undamped in end position
- Suitable for 80 mm and 130 mm dimensions to VDI/VDE 3845, shaft height 20, 30 and 50 mm

SM-N2

SM-N2 has a solid plastic housing with bayonet fitting and universal trip cams. The device indicates the switching positions of 2/2-way and 3/2-way valves.

- Integrated adjustable plastic feet (width and height)
- Easy to read optical position indicator

ATEX class:	ATEX Ex II 2G EEx ia IIB T6 -20°C to 70°C
Switch:	Inductive proximity switches to NAMUR EN 60947-5-6
Rated voltage:	8 VDC
Output current:	< 1 mA damped, > 3 mA undamped
Protection class:	IP 67 to EN 60529
Temperature range:	-20 to 70°C
Angle of rotation:	0° – 90° adjustable
Housing cover:	Lexan 143 R, antistatic coating
Housing base:	ABS, antistatic coating
Switching shaft:	POM (Polyoxymethylene)
Connection:	M 20 cable gland
Dimensions:	Ø 105 x 120 mm (variable height)

SM-N2

GEMÜ ES2 EEx i with slotted type proximity switch

The slotted type proximity switch in the ES2 EEx i switchbox is intrinsically safe due to its low potential. The TCR module enables easy setting of the switch points. The stainless steel discs can be adjusted 0° – 360° independently.

• Up to 4 slotted type proximity switches can be used

• Various stainless steel mounting kits can be ordered separately

• Option: optical position indicator available

ATEX class:	ATEX 2 IIG EEx ia IIC T6
Switch:	Slotted type proximity switch, break contact function to NAMUR DIN 19234 / EN 50227
Make:	Pepperl + Fuchs
Rated voltage:	8 V
Output current:	< 1 mA damped, > 3 mA undamped
Protection class:	IP 65 to DIN 40050
Temperature range:	–25 to 85°C
Housing cover:	Black Vestamid or transparent Makrolon
Housing base:	Black Vestamid
Connection:	M 20 cable gland
Dimensions:	146 x 64 x 74 mm (without mounting kit)

GEMÜ ES2 EEx i
with 3/2-way
BVT ball valve
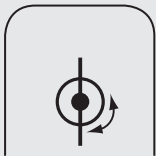
GEMÜ ES2 EEx i

Position indicators with proximity switches

Contactless 3-wire proximity switches for end position detection, for quarter turn valves

The GEMÜ 1229 and ES2 electrical position indicators are suitable for GEMÜ DR/SC and GEMÜ ADA/ASR single or double acting pneumatic actuators and for other makes.

- Easy setting of the trip cams
- Suitable for 80 mm and 130 mm dimensions to VDI/VDE 3845, shaft height 20, 30 and 50 mm

GEMÜ 1229

GEMÜ 1229 has a solid plastic housing with bayonet fitting and universal trip cams. The device indicates the switching positions of 2/2-way and 3/2-way valves.

- Damped or undamped in end position
- Integrated adjustable plastic feet (width and height)
- Easy to read optical position indicator

Switch:	3-wire proximity switch, PNP make contact
Make:	Pepperl + Fuchs or IFM
Rated voltage:	9 V – 36 V DC
Constant current:	100 mA
Protection class:	IP 67 to DIN 40050
Temperature range:	-20 to 70°C
Angle of rotation:	0° – 90° adjustable
Housing cover:	Lexan 143 R
Housing base:	ABS
Switching shaft:	POM (Polyoxymethylene)
Connection:	M 20 cable gland
Dimensions:	Ø 105 x 120 mm (variable height)

GEMÜ ES2 with 3-wire double proximity switch

The use of double sensors in the switchbox enables very easy mounting of the unit. The TCR module enables easy setting of the switch points.

- Various stainless steel mounting kits can be ordered separately
- Option: optical position indicator available

Switch:	3-wire proximity switch, PNP make contact
Make:	Pepperl + Fuchs
Operating voltage:	10 – 36 VDC (depending on proximity switch)
Protection class:	IP 65 to DIN 40050
Temperature range:	–25 to 80°C (depending on proximity switch)
Housing cover:	Black Vestamid or transparent Makrolon
Housing base:	Black Vestamid
Connection:	M 20 cable gland
Dimensions:	146 x 64 x 74 mm (without mounting kit)

GEMÜ 1229

GEMÜ ES2

GEMÜ ES2
with GEMÜ 751 ball valve

Position indicators with microswitches

Microswitches for end position detection, for quarter turn valves

The GEMÜ 1227, ES2 and PCR electrical position indicators are suitable for GEMÜ DR/SC and GEMÜ ADA/ASR single or double acting pneumatic actuators and for other makes.

- Easy setting of the trip cams
- Suitable for 80 mm and 130 mm dimensions to VDI/VDE 3845, shaft height 20, 30 and 50 mm

GEMÜ 1227

GEMÜ 1227 has a solid plastic housing with bayonet fitting and universal trip cams. The device indicates the switching positions of 2/2-way and 3/2-way valves.

- Integrated adjustable plastic feet (width and height)
- Easy to read optical position indicator

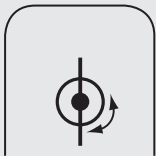|	
Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact
Make:	Crouzet
Contacts:	Gold plated
Rated voltage:	4V DC – 250 V AC
On-load current:	1 mA – 5 A
Protection class:	IP 67 to DIN 40050
Temperature range:	-20 to 70°C
Angle of rotation:	0° – 90° adjustable
Housing cover:	Lexan 143 R
Housing base:	ABS
Switching shaft:	POM (Polyoxymethylene)
Connection:	M 20 cable gland
Dimensions:	Ø 105 x 120 mm (variable height)

GEMÜ ES2 with microswitch

The microswitch of the switchbox works as a potential-free SPDT (Single Pole Double Throw) contact and enables flexible control . The TCR module enables easy setting of the switch points.

- Various stainless steel mounting kits can be ordered separately
- Option: optical position indicator available

Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact	
Make:	Crouzet	
Contacts:	Silver-nickel	gold plated
Temperature range:	-20 to 100°C	-20 to 85°
Rated voltage:	4V DC – 250 V AC	
On-load current:	1 mA – 5 A	
Protection class:	IP 65 to DIN 40050	
Housing cover:	Black Vestamid or transparent Makrolon	
Housing base:	Black Vestamid	
Connection:	M 20 cable gland	
Dimensions:	146 x 64 x 74 mm (without mounting kit)	

GEMÜ 1227

GEMÜ ES2

GEMÜ ES2 with DR/SC actuator

Position indicators with microswitches

Microswitches for end position detection, for quarter turn valves

GEMÜ PCR with microswitches

The microswitches of the proxi-box are designed as potential-free SPDT (Single Pole Double Throw) contacts allowing the operator many control options. The integrated cable terminal enables simple and fast wiring of the module

- Damped or undamped in end position
- Different mounting kits may be ordered separately
- Option: optical position indicator available

Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact
Make:	Crouzet
Contacts:	Silver-nickel / gold plated
Temperature range:	-20 to 100°C / -20 to 85°C
Switch rating:	16 A, 250 V
Protection class:	IP 65 to DIN 40050
Housing cover:	Black Vestamid or transparent Makrolon
Housing base:	Black Vestamid
Connection:	M 20 cable gland
Dimensions:	Ø 80 x 50 mm (without electrical connection and mounting kit)

GEMÜ 1226 mechanical switches

Open design (non enclosed)

GEMÜ 1226 is available with one or two position switches. The unit is universally applicable due to the base design technology. A high-grade steel cage provides the required contact protection according to valid EC safety standards.

The switch points can be selected to be unchangeable ("fixed") or freely selectable ("variable") according to a trip cam selector. GEMÜ 1226 can also be mounted on manual valves.

Switch:	Potential-free change-over switch with double break Zb or 2 break contacts, galvanically insulated contact bridges		
Make:	Schmersal		
Contacts:	Silver		
Temperature range:	-30 to 80°C		
Rated voltage:	24 V DC	24 V AC	220 V AC
Rated current:	10 A	10 A	4 A
Protection class:	IP 67 to DIN 40050		
Housing:	Thermoplast glass fibre reinforced		
Connection:	PG 13.5 cable gland		
Dimensions:	59 x 30 x 30 mm (switch)		

GEMÜ PCR

GEMÜ 1226

GEMÜ 1225

The GEMÜ 1225 electrical position indicator is suitable for GEMÜ 410 to 428 plastic or metal butterfly valves. The range of butterfly valves are manual, pneumatic or motorized depending on the type.

• Easy setting of the trip cams

• Additional indication of the switching position via colour LEDs

Switch:	Microswitch with potential-free SPDT (Single Pole Double Throw) contact (PNP or NPN)
Contacts:	Gold plated silver
Switch rating:	2.5 A to 24 V DC
Protection class:	IP 40
Temperature range:	0 to 70°C
Angle of rotation:	0° – 90° adjustable.
Housing:	PPO (Polyphenylene oxide, glass reinforced 30%)
Connection:	M 16 cable gland
Dimensions:	☐ 48 x 32 mm (without electrical connection and mounting kit)

GEMÜ 1225

GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS