

COMEX CONTROL STATIONS



A large number of variants and versions of actuating elements are available for the ComEx control and indicator units. All actuating elements are made of high-quality thermoplastic and conform to the IP 66/IP 67 type of protection. To complete the actuating elements, there are useful accessories such as e. g. label holders, marking tags, metal shroud or nut wrench. Actuating elements for increased resistance to oil are available too. The actuating elements are mounted quickly and easily onto the ComEx control and indicating devices. Use in Zone 1 and 21 is certified.

- Easy installation
- Certified for Zone 1 and 21
- High IP degree of protection

Explosion protection

Marking ATEX	II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db
Certification	CML 13 ATEX 3010 U
Marking IECEx	Ex eb IIC Gb Ex tb IIIC Db
Certification	IECEx CML 14.0005 U
Other approvals and certificates, see www.bartec.de	
Ambient and operating temperature range	-55 °C to +70 °C

Technical data


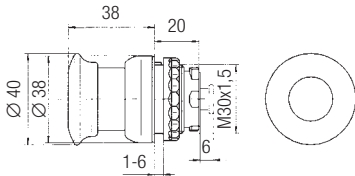

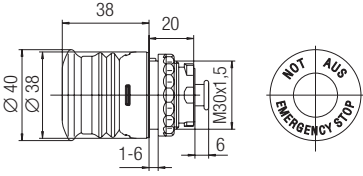

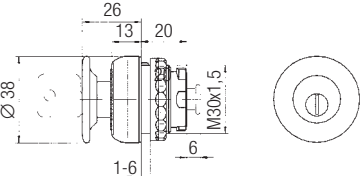

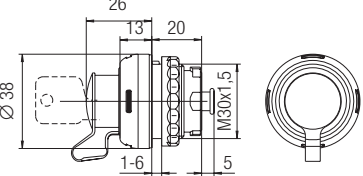
Storage and transport temperature	-55 °C to +70 °C
Protection class	min. IP 66
Weight	see table
Impact resistance	7 Nm (Lamp actuators 4 Nm)
Material	Enclosure thermoplastic
Fastening	Installation in enclosures with wall thickness of 1 mm up to 6 mm (threading M30 x 1.5). Suitable for through-holes 30.3 ^{+0.3} mm

Ordering Information

Illustration	Dimensions	Description	Order no.	
	for ComEx enclosure 	Position selector switch black, with 2 or 3 switch positions with protective collar, lockable ¹ only for switch module (2-pole)		
		0 - I	for control unit (flat) 05-0003-007001 for ComEx enclosure 05-0003-007101	
		I - II	for control unit (flat) 05-0003-007002 for ComEx enclosure 05-0003-007102	
		I - 0 - II	for control unit (flat) 05-0003-007203 for ComEx enclosure 05-0003-007303	
		HAND - 0 - AUTO	for control unit (flat) 05-0003-007224 for ComEx enclosure 05-0003-007324	
		MAN - 0 - AUTO	for control unit (flat) 05-0003-007225 for ComEx enclosure 05-0003-007325	
		Weight	74 g	
		¹ 3 boreholes in the protective collar to fit padlocks the switch position 0 (I) or to customer specifications.		
		for ComEx enclosure 	Double pushbutton actuator 5 labels red, green, yellow, white, black, supplied loose	
			for ComEx enclosures	05-0003-007500 05-0003-007500BN*
		for control units	05-0003-007400 05-0003-007400BN*	
		Weight	52 g	
		for Control unit/ComEx 316L 		
			Pushbutton 5 labels red, green, yellow, white, black, supplied loose	05-0003-000700 05-0003-000700BN*
		Weight	24 g	

* with special sealing for increased resistance to oil

Ordering information

Illustration	Dimensions	Description	Order no.
		Mushroom pushbutton black, unlabelled	05-0003-001800 05-0003-001800BN*
		red, unlabelled	05-0003-001802 05-0003-001802BN*
		Weight	74 g
		EMERGENCY STOP slam button	
		Pushbutton with imprint "NOT-AUS EMERGENCY STOP" "Pull to Release"	05-0003-000800 05-0003-000800BN*
		Pushbutton with imprint "ARRET"	05-0003-000802 05-0003-000802BN*
		Pushbutton yellow, unlabelled	05-0003-000801 05-0003-000801BN*
		Pushbutton black, unlabelled	05-0003-000803 05-0003-000803BN*
		Pushbutton red, unlabelled	05-0003-000804 05-0003-000804BN*
		DIN EN 60204-1: 2007 DIN EN 60947-5-1: 2005 (VDE 0660 Teil 200)	
		Weight	46 g
		Locking mushroom pushbutton	05-0003-001203 05-0003-001203BN*
		push in without key, unlock with key, DOM lock 4 A 185	
		Weight	70 g
		Lock DOM lock 4 A 185	
		Lockable in both positions, key retractable in both positions	05-0003-001200
		Lockable in depressed position, key retractable in depressed position	05-0003-001201
		Tip lock lockable in initial positions, key retractable in initial positions	05-0003-001202
		Weight	70 g

* with special sealing for increased resistance to oil

Technical data subject to change without notice.


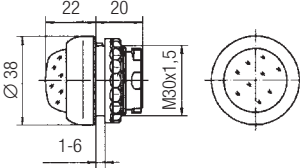

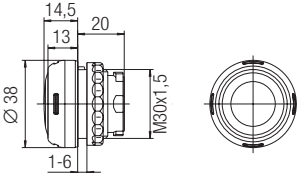

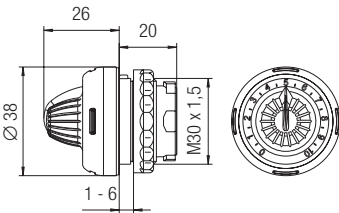

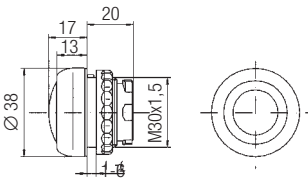

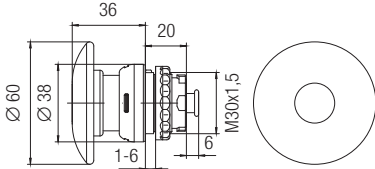
Ordering information

Illustration	Dimensions	Description	Order no.			
	<p>2 switching positions</p>	Key-operated switch** RONIS lock 455, with 2 or 3 switching positions, turned 90° for ComEx enclosures				
		0 - I, latching, key retractable	for control units	05-0003-007700		
			for ComEx enclosures	05-0003-007800		
		0 - I, momentary contact Position I, key not retractable	for control units	05-0003-007701		
			for ComEx enclosures	05-0003-007801		
		0 - I, latching, Position I key not retractable	for control units	05-0003-007702		
			for ComEx enclosures	05-0003-007802		
		I - 0 - II (I + II latching) key retractable	for control units	05-0003-007900		
			for ComEx enclosures	05-0003-008000		
			<p>3 switching positions</p>	I - 0 - II (I + II momentary contact) Position I + II key not retractable	for control units	05-0003-007901
	for ComEx enclosures			05-0003-008001		
Weight				49 g		
	<p>2 switching positions</p>			Position selector switch, black, with 2 or 3 switching positions		
				0 - I (latching)	for control units	05-0003-000900
						05-0003-000900BN*
					turned 90° for ComEx enclosures	05-0003-000901
						05-0003-000901BN*
				I - 0 - II (I + II latching)	for control units	05-0003-001000
						05-0003-001000BN*
			turned 90° for ComEx enclosures	05-0003-001100		
				05-0003-001100BN*		
		I - 0 - II (I + II momentary)	for control units	05-0003-001001		
				05-0003-001001BN*		
			turned 90° for ComEx enclosures	05-0003-001101		
				05-0003-001101BN*		
			<p>3 switching positions</p>	I - 0 - II (I latching, II momentary contact)	for control units	05-0003-001002
						05-0003-001002BN*
					turned 90° for ComEx enclosures	05-0003-001102
				05-0003-001102BN*		
I - 0 - II (I latching, II momentary contact)	for control units			05-0003-001003		
				05-0003-001003BN*		
	turned 90° for ComEx enclosures			05-0003-001103		
				05-0003-001103BN*		
0 - I (momentary)	for control units	05-0003-000902				
		05-0003-001003BN*				
	turned 90° for ComEx enclosures	05-0003-000903				
		05-0003-001103BN*				
Weight		33 g				

* with special sealing for increased resistance to oil

Technical data subject to change without notice.

Ordering information

Illustration	Dimensions	Description	Order no.
		Lamp module actuator	
		red	05-0003-001300 05-0003-001300BN*
		green	05-0003-001400 05-0003-001400BN*
		yellow	05-0003-001500 05-0003-001500BN*
		white	05-0003-001600 05-0003-001600BN*
		blue	05-0003-001700 05-0003-001700BN*
		Weight	19 g
		Illuminated button actuator	
		red	05-0003-006500 05-0003-006500BN*
		green	05-0003-006600 05-0003-006600BN*
		yellow	05-0003-006700 05-0003-006700BN*
		white	05-0003-006800 05-0003-006800BN*
		blue	05-0003-006900 05-0003-006900BN*
		Weight	19 g
		Potentiometer actuator, black, durable and abrasion-resistant, Scale gradation from 0 to 10	05-0003-007600 05-0003-007600BN*
		Weight	28 g
		Blanking plug, to cover unused holes in the cover	05-0003-001900 05-0003-001900BN*
		Weight	20 g
		Mushroom pushbutton, black with pushbutton label "START"	05-0003-008200 05-0003-008201
		Weight	24 g

* with special sealing for increased resistance to oil

Technical data subject to change without notice.



- High flexibility
- Easy installation
- High IP protection type

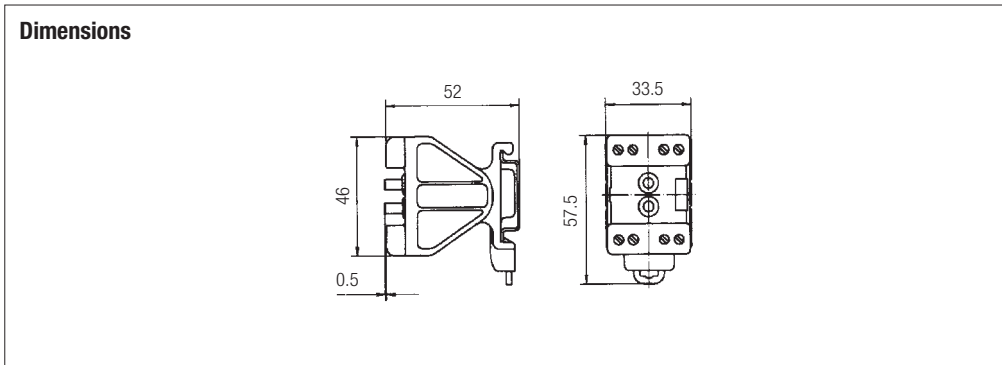
The ComEx switching module can be used in almost all potentially explosive areas where machine functions need to be triggered by a button or a switch. ComEx switching modules are flexible in use and offer a range of actuator elements. All contacts of the switching module are self-cleaning, and NC contacts have positive opening. The conductor is connected using terminals with increased safety on the back of the module. The simple installation of the actuator elements, without the use of tools, guarantees the high IP protection type.

Explosion protection

Marking ATEX	⊕ II 2G Ex db eb IIC Gb ⊕ I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1105U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0045U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by the actuating element and ComEx enclosure, min. IP 66, terminals IP 20		
Rated insulation voltage	690 V		
Rated voltage	400 V	110 V	24 V
Utilization category	AC-12	DC-13	DC-13
Rated operating currents	16 A	0.5 A	1 A
Conventional thermal current I_{the}	16 A/+40 °C, 11 A/+60 °C		
Contact options	contacts with positive break operation (self-cleaning) 1 NC and 1 NO or 2 NC or 2 NO		
Contact material	AgSnO ₂		
Enclosure material	thermoplastic		
Connection	terminals 2.5 mm ² , fine stranded		
Mechanical life	10 ⁶ switching cycles		
Storage and transport temperature	-55 °C to +70 °C		
Weight	approx. 70 g		
Mounting	on mounting rail NS 35 x 7.5		
Shock resistance	DIN EN/IEC 60068-2-27, 30 g 18 ms		



Ordering information

Type of contacts	Code no.	Actuating element	Code no.
2 NC 	1	Pushbutton	0700
		Double pushbutton actuator	7400
		Emergency stop NOT-AUS	0800
		Selector switch 0 + I latching, 2 positions	0900
		Selector switch I + II latching, 3 positions	1000
2 NO 	2	Selector switch I + II momentary-contact, 3 positions	1001
		Selector switch I latching, II momentary-contact, 3 positions	1002
		Selector switch I momentary-contact, II latching, 3 positions	1003
		Mushroom pushbutton, black	1800
		1 NC + 1 NO 	4
Lockable in the depressed position, DOM lock	1201		
Lockable in the initial position, DOM lock	1202		
Locking-type mushroom pushbutton	1203		

Complete order no.

Switch module without actuating element 07-3321-1 00

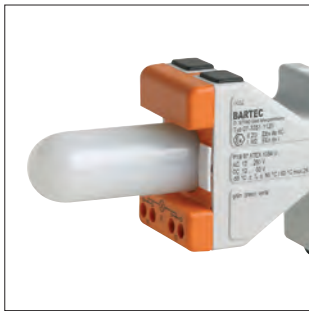
Actuating element

Standard 05-0003-00

Increased oil resistance 05-0003-00 BN

Please enter code number. Other actuators available see following.

Technical data subject to change without notice.



- One module for all fields of application
- Illumination 180°
- High flexibility thanks to the junction box
- Easy installation
- High IP protection type

The ComEx lamp module signals command modes by means of a light signal. It is suitable for use in almost all potentially explosive areas in which the functional status of machinery needs to be visibly displayed. The lamp modules are executed according to the requirements of type of protection “e increased safety” and “d flameproof enclosure”. The lamp module can be combined with various lamp module actuators. A junction box is provided for the safe and convenient installation of the module in a control panel. Conductors are connected using terminals with increased safety on the back of the module. The simple installation of the lamp module actuators, without the use of tools, guarantees the high IP protection type.

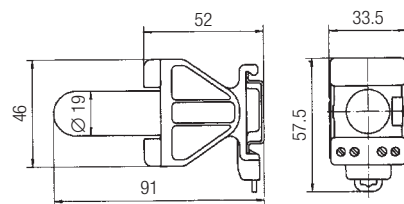
Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +50 °C +60 °C (AC/DC 12 V to 24 V)

Technical data

Protection class	determined by the actuating element and ComEx enclosure, min. IP 66, terminals IP 20
Rated insulation voltage	300 V
Rated operating voltage	AC 12 V to 250 V ($T_a \leq +50\text{ °C}$) DC 12 V to 60 V ($T_a \leq +50\text{ °C}$) AC/DC 12 V to 24 V ($T_a \leq +60\text{ °C}$)
Power consumption	$\leq 1\text{ W}$
Lamp	LED red, green, yellow, white, blue
Illumination	very bright, visible angle over 180°
Enclosure material	thermoplastic
Connection	terminals 2.5 mm ² , fine stranded
Electrical life	$>10^5$ running hours
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 90 g
Mounting	on mounting rail NS 35 x 7.5
Shock resistance	DIN EN/IEC 60068-2-27: 30 g 18 ms

Dimensions



Ordering information

Wiring diagram	Colour LED	Code no.	Colour actuator	Code no.
	red	1	red	3
	green	2	green	4
	yellow	3	yellow	5
	white	4	white	6
	blue	5	blue	7

Complete order no.

Lamp module without actuating element 07-3351-11 0
Actuating element Standard 05-0003-001 00
 Increased oil resistance 05-0003-001 00BN

Please enter code number.
 Technical data subject to change without notice.



- One module for all intrinsically safe application areas
- Long service life
- Excellent luminosity

The ComEx Ex i lamp module indicates command modes by means of a light signal lighting up or going out. It is suitable for use in almost all hazardous (potentially explosive) areas in which a visual indication of a machine's functional status is required. The lamp modules are designed to conform to the requirements of the "e increased safety", "d flameproof enclosure" and "i intrinsic safety types of protection". They may be activated by intrinsically safe circuits. The lamp module can be combined with various lamp module actuators. Each lamp module actuator is fitted into a mounting hole in a control console or a control panel. The respective lamp module is intended for fitting onto a mounting rail. Conductors are connected using terminals with increased safety on the back of the module. The lamp module actuators can be fitted easily, without the use of tools, which ensures conformance to the high IP degree of protection.

Explosion protection

Marking ATEX	Ⓜ II 2G Ex db eb IIC Gb Ⓜ I M2 Ex db eb ia I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEX	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEX CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

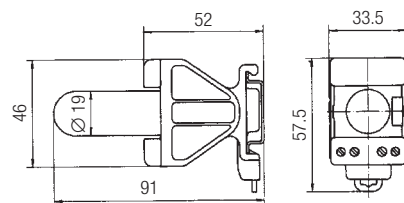
Technical data

Protection class	determined by the actuating element and control unit enclosure, min. IP 66, terminals IP 20
Rated operating voltage (U _e)	AC/DC 10 to 30 V
Frequency range	with AC supply 30 to 100 Hz
Power consumption	≤ 0,5 W
Lamp	LED, red, green, yellow, white, blue
Illumination	very bright, visible angle over 180°
Enclosure material	thermoplastic
Type of connection	terminals 2.5 mm ² , fine-stranded
Service life	>10 ⁵ running hours
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 90 g
Fastening	onto TS 35 x 7.5 mounting rail
Shock resistance	DIN EN/IEC 60068-2-27, 30 g, 18 ms DIN EN/IEC 60068-2-6, 4 g, 1.6 mm

Intrinsically safe parameters

Input voltage (U _i)	30 V
Input current (I _i)	150 mA
Input power (P _i)	1 W
Inductance (L _i)	negligible
Capacitance (C _i)	negligible

Dimensions



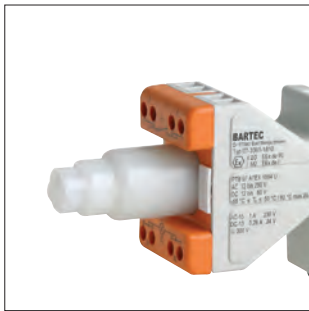
Ordering information

Wiring diagram	Colour LED	Code no.	Colour actuator	Code no.
	red	1	red	3
	green	2	green	4
	yellow	3	yellow	5
	white	4	white	6
	blue	5	blue	7

Complete order no.

Lamp module without actuating element 07-3351-14 0
Actuating element Standard 05-0003-001 00
 Increased oil resistance 05-0003-001 00BN

Please enter code number.
 Technical data subject to change without notice.



- One module for all fields of application
- Excellent Illumination
- Easy installation
- High IP protection type

The ComEx illuminated button signals command modes by means of a light signal. It is suitable for use in almost all potentially explosive areas in which the functional status of machinery needs to be visibly displayed. The illuminated buttons are executed according to the requirements of type of protection “e increased safety” and “d flameproof enclosure”. The illuminated button can be combined with various lamp module actuators. Each illuminated button actuator is inserted in a mounting hole on a control console or control panel. The respective illuminated button is designed for installation onto a mounting rail. The conductor is connected using terminals with increased safety on the back of the module. The simple installation of the illuminated button actuators, without the use of tools, guarantees the high IP protection type.

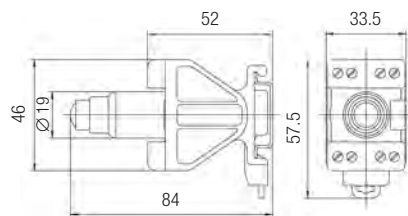
Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEX	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEX CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +50 °C +60 °C (AC/DC 12 to 24 V)

Technical data

Protection class	determined by the actuating element and ComEx enclosure, min. IP 66, terminals IP 20	
Rated insulation voltage	300 V	
Rated operating voltage	AC 12 V to 250 V	($T_a \leq +50 \text{ °C}$)
	DC 12 V to 60 V	($T_a \leq +50 \text{ °C}$)
	AC/DC 12 V to 24 V	($T_a \leq +60 \text{ °C}$)
Power consumption	$\leq 1 \text{ W}$	
Lamp	LED: red, green, yellow, white, blue	
Illumination	very bright, visible angle over 180°	
Contacts	1 NC or 1 NO as snap switch element	
Switching capacity	AC-15	1 A/230 V
	DC-13	0.25 A/24 V
Enclosure material	thermoplastic	
Type of connection	terminals 2.5 mm ² , fine stranded	
Service life	$>10^5$ running hours	
Mechanical life	$>10^5$ switching cycles	
Storage and transport temperature	-55 °C to +70 °C	
Weight	approx. 110 g	
Fastening	onto mounting rail TS 35 x 7.5	
Shock resistance	DIN EN/IEC 60068-2-27, 30 g, 18 ms	

Dimensions



Ordering information

Type of contact	Code no.	Colour LED	Code no.	Colour actuator	Code no.
	7	red	1	red	5
		green	2	green	6
		yellow	3	yellow	7
	8	white	4	white	8
		blue	5	blue	9

Complete order no.

Illuminated button without actuating element 07-3361-1 0

Actuating element Standard 05-0003-006 00

Increased oil resistance 05-0003-006 00BN

Please enter code number.
Technical data subject to change without notice.



- One module for all intrinsically safe application areas
- Long service life
- Excellent luminosity

The ComEx Ex i illuminated button indicates command modes by means of a light signal lighting up or going out. It is suitable for use in almost all hazardous (potentially explosive) areas in which a visual indication of the machine's functional status is required. The illuminated buttons are designed to conform to the requirements of the "e increased safety", "d flameproof enclosure", and "i intrinsic safety types of protection". They may be activated by intrinsically safe circuits. The illuminated buttons can be combined with various lamp module actuators. Each illuminated button actuator is fitted into a mounting hole in a control console or a control panel. The respective illuminated button is intended for fitting onto a mounting rail. Conductors are connected using terminals with increased safety on the back of the module. The lamp module actuator can be fitted easily, without the use of tools, which ensures conformance to the high IP degree of protection.

Explosion protection

Marking ATEX	⊕ II 2G Ex db eb ia IIC Gb ⊕ I M2 Ex db eb ia I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEx	Ex db eb ia IIC Gb Ex db eb ia I Mb
Certification	IECEx CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Umgebungstemperatur	-55 °C bis +60 °C

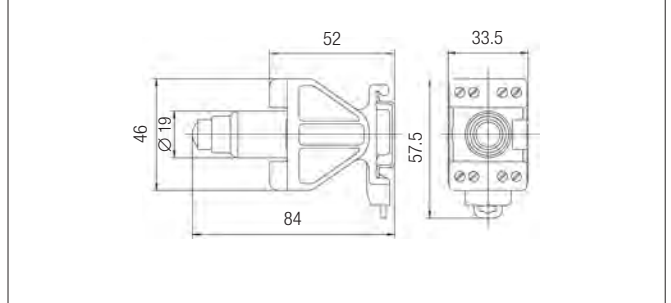
Technical data

Protection class	determined by the actuating element and ComEx enclosure, min. IP 66, terminals IP 20
Rated operating voltage (U ₀)	AC/DC 10 to 30 V
Frequency range	with AC supply 30 to 100 Hz
Power consumption	≤ 0.5 W
Lamp	LED, red, green, yellow, white, blue
Illumination	very bright, visible angle over 180°
Contacts	1 NC contact or 1 NO contact as snap-action switching elements
Switching capacity	DC-13 0.25 A/24 V
Enclosure material	thermoplastic
Type of connection	terminals 2.5 mm ² , fine-stranded
Service life	> 10 ⁵ running hours
Mechanical life	> 10 ⁵ switching cycles
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 110 g
Fastening	onto TS 35 x 7.5 mounting rail
Shock resistance	DIN EN/IEC 60068-2-27, 30 g, 18 ms DIN EN/IEC 60068-2-6, 4 g, 1.6 mm

Intrinsically safe parameters

Input voltage (U _i)	30 V
Input current (I _i)	150 mA
Input power (P _i)	1 W
Inductance (L _i)	negligible
Capacitance (C _i)	negligible

Dimensions



Ordering information

Type of contact	Code no.	Colour LED	Code no.	Colour actuator	Code no.
 1 NC	5	red	1	red	3
		green	2	green	4
		yellow	3	yellow	5
 1 NO	6	white	4	white	6
		blue	5	blue	7

Complete order no.

Illuminated button without actuating element	07-3361-1	<input type="checkbox"/>	<input type="checkbox"/>	0
Actuating element Standard	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/>	00
Increased oil resistance	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/>	00BN

Please enter code number.
 Technical data subject to change without notice.



- Easy and exact setting of the desired value
- Easy installation
- High IP rating

The ComEx potentiometer is used in virtually all hazardous (potentially explosive) locations where machine functions are controlled by means of adjustable voltage distributors. The module can be combined with a potentiometer actuator (scale graduation 0 to 10). Conductors are connected via of terminals on the back of the module which have an increased safety level. The easy installation of the potentiometer actuating element without the need for the use of tools ensures conformance to the high IP degree of protection.

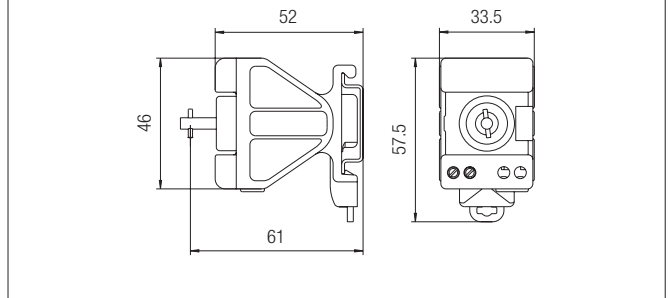
Explosion protection

Marking ATEX	⊕ II 2G Ex db eb IIC Gb ⊕ I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1119 U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0057U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by the actuating element and ComEx enclosure, min. IP 66, terminals IP 20
Rated insulation voltage	500 V
Max. rated voltage	AC/DC 230 V
Resistance	1 kΩ to 10 kΩ
Curve shape	linear
Resistance tolerance	± 20 %
Rated output	max. 1 W at $T_a \leq +40\text{ °C}$
Resistor material	carbon film on ceramics
Rotation	mech. 285° to -5° electr. about approx. 250°
Torgue (beginning)	0.5 to 1.5 Ncm
Torgue (end stop)	≥ 100 Ncm
Enclosure material	thermoplastic
Connection	double terminals 2 x 2.5 mm ² , fine stranded
Mechanical life	25.000 sinusoidal cycles
Storage and transport temperature	-55 °C to +70 °C
Weight	ca. 71 g

Dimensions



Ordering information

Wiring diagram	Resistance	Code no.
	1 kΩ	4
	2.2 kΩ	5
	4.7 kΩ	6
	10 kΩ	7

Other resistances on request.

Complete order no.

Potentiometer without actuating element 07-3371-1D 0

Please enter code number.

Technical data subject to change without notice.

Actuating element

Standard (scale 1 to 10) Order no. 05-0003-007600
 Increased oil resistance (scale 1 to 10) Order no. 05-0003-007600BN

Notes for installation and inspection:

At rated voltage:
 ≤ AC 50 V/≤ DC 120 V
 (protection low voltage in accordance with DIN VDE 0100 T. 410)
 potentiometer drive shaft can be operated without actuating element.

At rated voltage:
 ≥ AC 50 V to max. AC/DC 230 V
 potentiometer drive shaft can only be operated with actuating element or has to be deenergized.



- Contacts with positive break operation
- Latched and momentary-contact positions

This control switch has been designed to solve the variety of problems encountered in chemical and petrochemical plants and on explosion-proofed electrical machinery. Four switch contacts as opening and closing elements in different permutations permit a variety of functions. The opener has a positive break operation. The switch actuator offers latched and momentary-contact positions with different switch positions. The control switch can be installed quickly and directly into double or triple ComEx enclosures, or in combination with other command devices in control units.

Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1105 U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0045U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

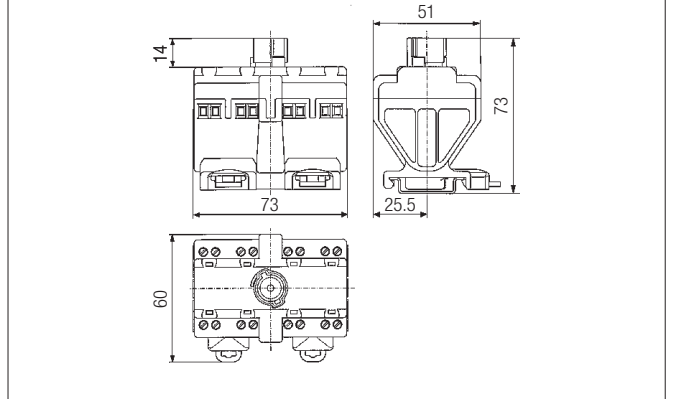
Technical data

Connection	terminals 2.5 mm ² , fine stranded	
Contact material	AgSnO ₂	
Enclosure material	thermoplastic	
Installation	on TS 35 x 7.5 mounting rail	
Switch function	max. 4 switch contacts different NC/NO contact assemblies latching and momentary-contact functions with different switch positions	
Contacts	contacts with positive break operation (self-cleaning)	
Installation	in ComEx double and triple enclosures and in control units as floor mounting and front-panel mounting	
Switch isolator	DIN EN 60947-3 (main motor switch)	
P/AC-3/AC-23 A	AC-3	AC-23
230 V	3 ph/3 kW	1 ph/2.2 kW
400 V	3 ph/5.5 kW	1 ph/3 kW
	I _g = AC-23/400 V/10 A	
Control switch according to DIN EN 60947-5-1 (auxiliary circuit switch)		
AC-15	400 V	10 A
AC-12	400 V	16 A
DC-13	24 V	1 A

Electrical data

Rated insulation voltage	U _i = 690 V
	U _e = 400 V
Rated impulse strength	U _{imp} = 6 kV
Conditional rated short-circuit current at 400 V	I _e = 4 kA
Short-circuit current (general-purpose l.v.h.b.c back-up fuse for the protection of cables and circuits)	max. 16 A
Nominal thermal current	(+40 °C) I _{the} = 16 A
	(+60 °C) I _{the} = 11 A

Dimensions



Ordering information

Contact arrangement of control switch	Code no.	Contact arrangement of control switch	Code no.
	A01		C06
	A02		C07
	A03		E08
	A04		E09
	H05		L01
Contact arrangement of switch-isolator			
	N01		N02

Further contact versions are available upon request.

Complete order no. 07-3331-1
 Please enter code number.
 Technical data subject to change without notice.

Ordering information

Illustration/Dimensions	Description	Order no.	
for ComEx enclosure 	Black position selector with protective collar, lockable* only for 4-pole switch		
	0 - I	for ComEx enclosure für Control unit (flat)	05-0003-006201 05-0003-006301
for control unit/ComEx 316L 	I - II	for ComEx enclosure für Control unit (flat)	05-0003-006202 05-0003-006302
	I - 0 - II	for ComEx enclosure für Control unit	05-0003-006203 05-0003-006303
	0 - I - II	for ComEx enclosure für Control unit (flat)	05-0003-006204 05-0003-006304
	0 - I - II - III	for ComEx enclosure für Control unit (flat)	05-0003-006205 05-0003-006305
	0 - I - II - III - IV	for ComEx enclosure für Control unit (flat)	05-0003-006206 05-0003-006306
	HAND - 0 - AUTO	for ComEx enclosure für Control unit (flat)	05-0003-006209 05-0003-006309

* As standard, there are 3 boreholes in the protective collar to fit padlocks. If no further details are given on which switching position is to be locked, the boreholes are provided in the switch position 0 (I), others to customer specifications.



- One module for all fields of application
- Large selection of actuating elements
- High flexibility thanks to the junction box
- Low installation depth

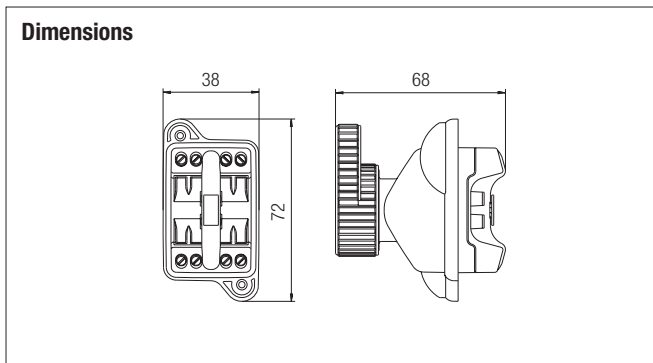
The ComEx^{flex} switch module is used in almost all hazardous areas where machine functions are activated by means of a button or a switch. The ComEx^{flex} is flexible and in addition to a large number of actuating elements it offers a junction box to facilitate a safe and convenient installation of the module into a control panel. All contacts in the switch modules are self-cleaning and the opening contacts have positive opening operation. The conductors are connected by means of terminals on the back of the module which have an increased safety level. The easy installation of the actuating elements, without the use of tools, ensures conformance to the high IP degree of protection.

Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1105 U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0045U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by the actuating element and control station enclosure, min. IP 66, terminals IP 20 (IEC 60529).			
Rated insulation voltage	690 V			
Rated operating voltage	400 V	400 V	110 V	24 V
Utilization category	AC-12	AC-15	DC-13	DC-13
Rated operating currents	16 A	10 A	0.5 A	1 A
Conventional thermal current I_{the}	16 A/+40 °C, 11 A/+60 °C			
Contact options	contacts with positive-break operation (self-cleaning) 1 N/C and 1 N/O or 2 N/C or 2 N/O			
Contact material	AgSnO ₂			
Enclosure material	thermoplastic			
Connection	terminals 2.5 mm ² , fine-stranded			
Mechanical life	>10 ⁶ switching cycles			
Storage temperature	-55 °C to +70 °C			
Weight	approx. 110 g			
Mounting	locked, bayonet lock			
Shock resistance	DIN EN 60068-2-27, 30 g 18 ms			



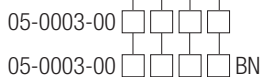
Ordering information

Type of contacts	Code no.	Actuating elements	Code no.
	1	Pushbutton	0700
		Double pushbutton actuator	7400
		Emergency stop NOT-AUS	0800
		Selector switch 0 + I latching, 2 positions	0900
		Selector switch I + II latching, 3 positions	1000
	2	Selector switch I + II momentary-contact, 3 positions	1001
		Selector switch I latching, II momentary-contact, 3 positions	1002
		Selector switch I momentary-contact, II latching, 3 positions	1003
		Mushroom pushbutton, black	1800
		Lockable in both positions, DOM lock	1200
	4	Lockable in the depressed position, DOM lock	1201
		Lockable in the initial position, DOM lock	1202
		Locking-type mushroom pushbutton	1203

Complete order no.

Switch module without actuating element 07-3323-4 00

Actuating element Standard



Increased oil resistance 05-0003-00 BN

Please enter code number. Other actuators available see following.
 Technical data subject to change without notice.

1



- One module for all fields of application
- Illumination 180°
- High flexibility due to junction box
- Low installation depth

The ComEx^{flex} lamp module indicates command modes by means of a light signal lighting up or going out. It is suitable for use in almost all explosive areas in which a visual indication of a machine's functional status is required. The lamp module can be combined with various lamp module actuating elements. A junction box is available to facilitate a safe and convenient installation of the module into a control panel. The conductors are connected by means of terminals on the back of the module which have an increased safety level. The lamp module actuating elements can be fitted easily, without the use of tools, which ensures conformance to the high IP degree of protection.

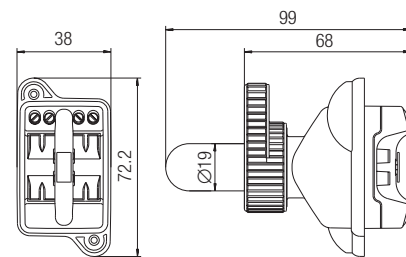
Explosion protection

Marking ATEX	⊕ II 2G Ex db eb IIC Gb ⊕ I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEX	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEX CML 17.0046 U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Technical data	determined by actuating element and control station enclosure, min. IP 66, terminals IP 20 (IEC 60529).	
Rated insulation voltage	300 V	
Rated operating voltage	AC 12 V to 250 V	(T _a ≤ +50 °C)
	DC 12 V to 60 V	(T _a ≤ +50 °C)
	AC/DC 12 V to 24 V	(T _a ≤ +60 °C)
Power consumption	≤ 1 W	
Lamp	LED, red, green, yellow, white, blue	
Illumination	very bright, visible angle over 180°	
Enclosure material	thermoplastic	
Connection	terminals 2.5 mm ² , fine-stranded	
Electrical life	>10 ⁵ running hours	
Storage and transport temperature	-55 °C to +70 °C	
Weight	approx. 110 g	
Mounting	locked, bayonet lock	
Shock resistance	DIN EN 60068-2-27, 30 g 18 ms	

Dimensions



Ordering information

Wiring diagram	Colour LED	Code no.	Colour actuator	Code no.
	red	1	red	3
	green	2	green	4
	yellow	3	yellow	5
	white	4	white	6
	blue	5	blue	7

Complete order no.

Lamp module without actuating element	07-3353-41	<input type="checkbox"/> 0
Actuating element Standard	05-0003-001	<input type="checkbox"/> 00
Increased oil resistance	05-0003-001	<input type="checkbox"/> 00BN

Please enter code number.

Technical data subject to change without notice.



- One module for all intrinsically safe application areas
- Illumination 180°
- High flexibility due to junction box
- Low installation depth

The ComEx^{flex} Ex i lamp module indicates command modes by means of a light signal lighting up or going out. It is suitable for use in almost all hazardous (potentially explosive) areas in which a visual indication of a machine's functional status is required. The lamp modules are designed to conform to the requirements of the "e increased safety", "d flameproof enclosure" and "i intrinsic safety types of protection". They may be activated by intrinsically safe circuits. The lamp module can be combined with various lamp module actuators. A junction box is available to facilitate a safe and convenient installation of the module into a control panel. Conductors are connected using terminals with increased safety on the back of the module. The lamp module actuators can be fitted easily, without the use of tools, which ensures conformance to the high IP degree of protection.

Explosion protection

Marking ATEX	⊕ II 2G Ex db eb ia IIC Gb ⊕ I M2 Ex db eb ia I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEx	Ex db eb ia IIC Gb Ex db eb ia I Mb
Certification	IECEx CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

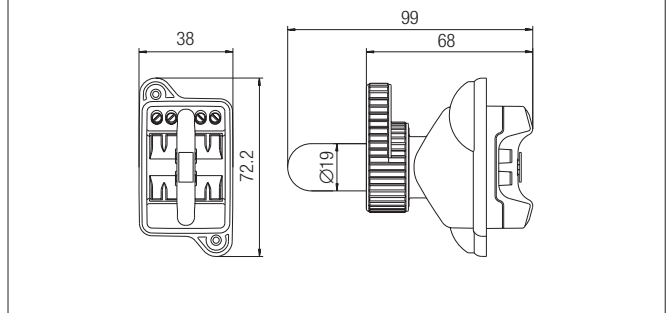
Intrinsically safe parameters

Input voltage (U _i)	30 V
Input current (I _i)	150 mA
Input power (P _i)	1 W
Inductance (L _i)	negligible
Capacitance (C _i)	negligible

Technical data

Protection class	determined by actuating element and control unit enclosure, min. IP 66, terminals IP 20 (IEC 60529).
Rating operating voltage (U _e)	AC/DC 10 to 30 V
Frequency range	with AC supply 30 to 100 Hz
Power consumption	≤ 0.5 W
Lamp	LED, red, green, yellow, white, blue
Illumination	very bright, visible angle over 180°
Enclosure material	thermoplastic
Type of connection	terminals 2.5 mm ² , fine-stranded
Electrical life	>10 ⁵ running hours
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 110 g
Fastening	locked, by bayonet lock
Shock resistance	DIN EN 60068-2-27, 30 g, 18 ms DIN EN 60068-2-6, 4 g, 1.6 mm

Dimensions



Ordering information

Wiring diagram	LED colour	Code no.	Actuator colour	Code no.
	red	1	red	3
	green	2	green	4
	yellow	3	yellow	5
	white	4	white	6
	blue	5	blue	7

Complete order no.	
Lamp module without actuator	07-3353-44 □ 0
Actuating element Standard	05-0003-001 □ 00
Increased oil resistance	05-0003-001 □ 00BN

Please insert correct code.
Technical data subject to change without notice.



- One module for all fields of application
- Excellent luminosity
- High flexibility thanks to the junction box
- Low installation depth

The ComEx^{flex} illuminated button is used in almost all hazardous (potentially explosive) areas where machine functions are activated by pressing a button and the corresponding functional status is to be indicated visually. ComEx^{flex} is flexible and in addition to a large number of illuminated button actuators it offers a junction box to facilitate a safe and convenient installation of the module into a control panel. The module contacts are designed as snap-action contact elements. The conductors are connected by means of terminals on the back of the module which have an increased safety level. The easy installation of the lamp module actuating elements, without the use of tools, ensures conformance to the high IP degree of protection.

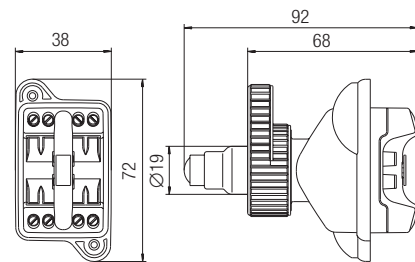
Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEx	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEx CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by the actuating element and control station enclosure, min. IP 66, terminals IP 20 (IEC 60529).	
Rated insulation voltage	300 V	
Rated operating voltage	AC 12 V to 250 V	($T_a \leq +50\text{ °C}$)
	DC 12 V to 60 V	($T_a \leq +50\text{ °C}$)
	AC/DC 12 V to 24 V	($T_a \leq +60\text{ °C}$)
Power consumption	< 1 W	
Lamp	LED, red, green, yellow, white, blue	
Illumination	very bright, visible angle over 180°	
Contacts	1 N/C or 1 N/O as snap switch element AC-15 1 A/230 V DC-13 0.25 A/24 V	
Enclosure material	thermoplastic	
Type of connection	terminals 2.5 mm ² , fine-stranded	
Electrical life	>10 ⁵ running hours	
Mechanical life	>10 ⁵ switching cycles	
Storage and transport temperature	-55 °C to +70 °C	
Weight	approx. 110 g	
Mounting	locked, bayonet lock	
Shock resistance	DIN EN 60068-2-27, 30 g 18 ms	

Dimensions



Ordering information

Type of contact	Code no.	Colour LED	Code no.	Colour actuator	Code no.
1 NC 1 X1 2 X2	7	red	1	red	5
		green	2	green	6
		yellow	3	yellow	7
1 NO 3 X1 4 X2	8	white	4	white	8
		blue	5	blue	9

Complete order no.			
Illuminated button without actuating element	07-3363-4	<input type="checkbox"/>	<input type="checkbox"/> 0
Actuating element Standard	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/> 00
Increased oil resistance	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/> 00BN

Please enter code number.
 Technical data subject to change without notice.



- One module for all intrinsically safe application areas
- Excellent luminosity
- High flexibility due to junction box
- Low installation depth

The ComEx^{flex} Ex i illuminated button is used in almost all hazardous (potentially explosive) areas where machine functions are to be activated at the touch of a button and the corresponding functional status is to be visually displayed. The illuminated buttons are produced in conformance to the requirements for the “e increased safety”, “d flameproof enclosure”, and “i intrinsic safety types of protection”. They may be activated by intrinsically safe circuits. ComEx^{flex} is flexible and in addition to a large number of illuminated button actuators, it offers a junction box to facilitate a safe and convenient installation of the module into a control panel. The module’s contacts are designed as snap-action switching elements. Conductors are connected using terminals with increased safety on the back of the module. The illuminated button actuators can be fitted easily, without the use of tools, which ensures conformance to the high IP degree of protection.

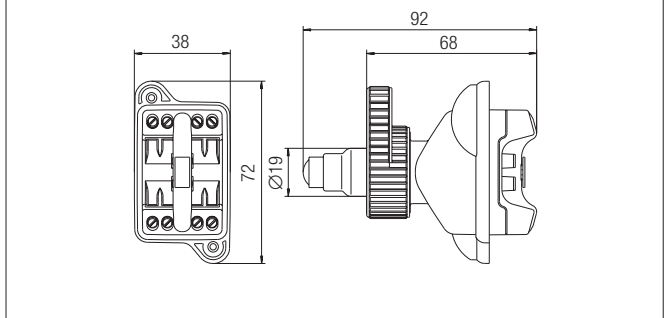
Explosion protection

Marking ATEX	⊕ II 2G Ex db eb ia IIC Gb ⊕ I M2 Ex db eb ia I Mb
Certification	CML 17 ATEX 1106 U
Marking IECEx	Ex db eb ia IIC Gb Ex db eb ia I Mb
Certification	IECEx CML 17.0046U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by actuating element and control station enclosure, min. IP 66, terminals IP 20 (IEC 60529).
Rated operating voltage (U _e)	AC/DC 10 to 30 V
Frequency range	with AC supply 30 to 100 Hz
Power consumption	≤ 0.5 W
Lamp	LED, red, green, yellow, white, blue
Illumination	very bright, visible angle over 180°
Contacts	1 N/C or 1 N/O as snap switch element DC-13 0.25 A/24 V
Enclosure material	thermoplastic
Type of connection	terminals 2.5 mm ² , fine-stranded
Electrical life	>10 ⁵ running hours
Mechanical life	>10 ⁵ switching cycles
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 110 g
Mounting	locked, bayonet
Shock resistance	DIN EN 60068-2-27, 30 g, 18 ms DIN EN 60068-2-6, 4 g, 1.6 mm

Dimensions



Intrinsically safe parameters

Input voltage (U _i)	30 V
Input current (I _i)	150 mA
Input power (P _i)	1 W
Inductance (L _i)	negligible
Capacitance (C _i)	negligible

Selection chart

Type of contact	Code no.	Colour LED	Code no.	Colour actuator	Code no.
1 NC 	5	red	1	red	3
		green	2	green	4
		yellow	3	yellow	5
1 NO 	6	white	4	white	6
		blue	5	blue	7

Complete order no.

Illuminated button without actuating element	07-3363-4	<input type="checkbox"/>	<input type="checkbox"/>	0
Actuating element Standard	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/>	00
Increased oil resistance	05-0003-006	<input type="checkbox"/>	<input type="checkbox"/>	00BN

Please enter code number.

Technical data subject to change without notice.



- One module for all fields of application
- High flexibility thanks to the junction box
- Low installation depth

The ComEx^{flex} potentiometer is used in almost all hazardous (potentially explosive) areas where machine functions are controlled by means of adjustable voltage distributors. The module can be combined with a potentiometer actuator (scale graduation 0 to 10). A junction box is available as a safe and convenient means of installing the potentiometer in a control panel. The conductors are connected by means of terminals on the back of the module which have an increased safety level. The easy installation of the potentiometer actuating element without the need for tools, ensures conformance to the high IP degree of protection.

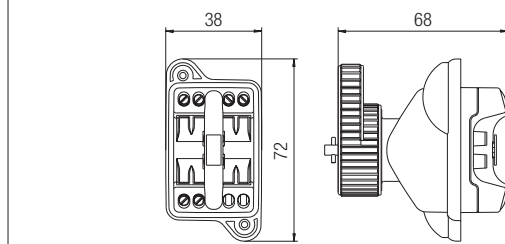
Explosion protection

Marking ATEX	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
Certification	CML 17 ATEX 1119 U
Marking IECEX	Ex db eb IIC Gb Ex db eb I Mb
Certification	IECEX CML 17.0057U
Other approvals and certificates, see www.bartec.de	
Ambient temperature	-55 °C to +60 °C

Technical data

Protection class	determined by the actuating element and control station enclosure, min. IP 66, terminals IP 20 (IEC 60529).
Rated insulation voltage	500 V
Max. rated voltage	AC/DC 230 V
Resistance	1 kΩ to 10 kΩ
Curve shape	linear
Resistance tolerance	+ 20 %
Rated output	max. 1 W for $T_a \leq +40\text{ °C}$
Resistor material	carbon film on ceramics
Rotation	mech. 285° to 5° electr. approx. 250°
Torque (beginning)	0.5 to 1.5 Ncm
Torque (end stop)	≥ 100 Ncm
Enclosure material	thermoplastic
Connection	double terminals 2 x 2.5 mm ² , fine-stranded
Mechanical life	25,000 sinusoidal cycles
Storage and transport temperature	-55 °C to +70 °C
Weight	approx. 110 g

Dimensions



Ordering information

Wiring diagram	Resistance	Code no.
	1 kΩ	4
	2.2 kΩ	5
	4.7 kΩ	6
	10 kΩ	7

Other levels of resistance on request.

Complete order no.

Potentiometer without actuating element 07-3373-4D 0

Please enter code number.

Technical data subject to change without notice.

Actuating element

Standard (Scale 1 to 10)	Order no. 05-0003-007600
Increased oil resistance (Scale 1 to 10)	Order no. 05-0003-007600BN

Notes for installation and inspection

At rated voltage:
 ≤ AC 50 V / ≤ DC 120 V
 (Safety extra low voltage in conformance to DIN VDE 0100 T. 410)
 The potentiometer drive shaft can be operated without actuating element.

At rated voltage:
 ≥ AC 50 V to max. AC/DC 230 V
 Potentiometer drive shaft must be operated with an actuating element or it must be deenergized.



BARTEC offers a junction box to facilitate the use of ComEx^{flex} in a control console or a control panel. The junction box features a cable gland and can be combined with various function modules. The junction box allows the connection of a conductor, which can be assembled either to order or by the customer.

ComEx^{flex} junction boxes with function modules



ComEx^{flex} junction boxes

in conjunction with ComEx^{flex} function modules

Explosion protection

Marking ATEX	⊕ II 2G Ex db eb IIC T6 Gb
	⊕ II 2G Ex db eb ia IIC T6 Gb
	⊕ II 2D Ex tb IIIC T80 °C Db
	⊕ II 2D Ex tb ia IIIC T80 °C Db

Certification	CML 17 ATEX 1117 X
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Marking IECEx	Ex db eb IIC T6 Gb
	Ex db eb ia IIC T6 Gb
	Ex tb IIIC T80 °C Db
	Ex tb ia IIIC T80 °C Db

Certification	IECEx CML 17.0055X
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Other approvals and certificates, see www.bartec.de

Ambient temperature	55 °C to +40 °C / +50 °C / +60 °C
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Approved for Zone	1/21 and 2/22
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Technical data

Protection class	Function module with junction box and actuating element min. IP 66
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Weight	approx. 40 g
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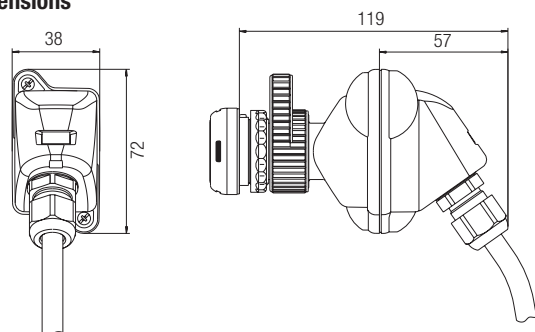
Clamping range	4 to 9 mm
	5 to 10 mm

Enclosure material/ manufacturing process	Thermoplastic/injection moulding
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Sheathed leads available on request	BETAflam 145-flex UL
	ULstyle 4486

Switch module	4 x 1.5 mm ²	BK, BU, BN, GY
Lamp Module	2 x 0.75 mm ²	BU, BN
Illuminated button	4 x 0.75 mm ²	BK, BU, BN, GY
Potentiometer	3 x 0.75 mm ²	BK, BN, GY

Dimensions











Ordering information

Version	Order no.
Junction box	05-0042-0050

Technical data subject to change without notice.

Ordering information

Illustration	Description	Order no.
	Fixing nut M 30 to fix the actuating elements in the mounting wall of enclosure resp. in the enclosure	05-1138-0009
	Printed pushbutton labels 6 loose pushbutton labels 1 x green marked START, ON, I 1 x red marked STOP, OFF, O	05-0091-0019
	Spanner	05-1191-0001
	Label holder Label holder for actuating elements with label insert	05-0044-0001 03-5412-0056
	Contrast plate for EMERGENCY-STOP impact switch yellow Ø 90 mm	05-2144-1097
	Label unmarked, for device information	03-3600-0021
	Marking tag for an additional label, for all actuating elements	05-1105-0020
Examples 	Label (without marking) for marking tag Labelling to your specifications (see examples)	03-5412-0060

Technical data subject to change without notice.



- 3 standard enclosures
- Easy to install
- Extremely flexible
- Customer-tailored solutions

ComEx is a flexible system offering standard as well as customer-specific local control and indicating units. You have the choice between three standard enclosures which can accommodate up to three different control and indicating devices. Combinations of up to three ComEx enclosures are possible. Electrical connection can be established by using plastic or metal cable glands M20 x 1.5 and M25 x 1.5. The plastic glands require no lock nuts. Metal glands are screwed into a metal earth plate sheet inside of the enclosure. Maximum amount of cable glands: two M20. To ensure easier operation on site, each enclosure can be equipped with an individual info-label. For offshore applications special oil-resistant versions are available.

Explosion protection

Marking ATEX $\text{Ex II 2G Ex d e IIC T6 Gb}$ or $\text{Ex II 2G Ex d e ia IIC T6 Gb}$ or $\text{Ex II 2D Ex tb IIIC T80°C Db}$

Certification CML 14 ATEX 3073 X

Marking IECEx $\text{Ex db eb IIC T6 Gb}$
 $\text{Ex db eb ia IIC T6 Gb}$
 $\text{Ex tb IIIC T80°C Db}$

Certification IECEx CML 14.0029X

Other approvals and certificates, see www.bartec.de

Ambient temperature up to $-55\text{ °C} \leq T_a \leq +60\text{ °C}$

Product printing Standard: ATEX and IECEx marking.
 Other markings on request.
 Please specify in plain text.

Technical data

Connection terminals 2.5 mm²

PE conductor terminals 4 x 2.5 mm²

Rated insulation voltage max. AC 690 V

Nominal current max. 16 A

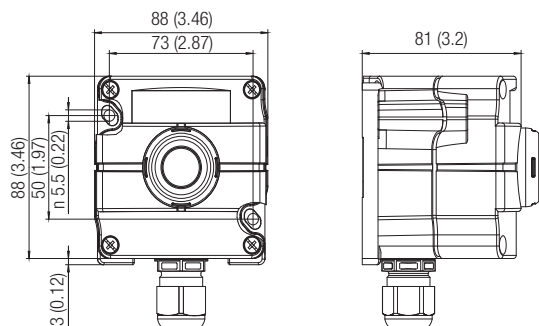
Cable entry M20 x 1.5 for cable Ø 7 to 13 mm
 M25 x 1.5 for cable Ø 12 to 17 mm
 M25 x 1.5 for cable Ø 14 to 18 mm

Enclosure glass fibre reinforced plastic

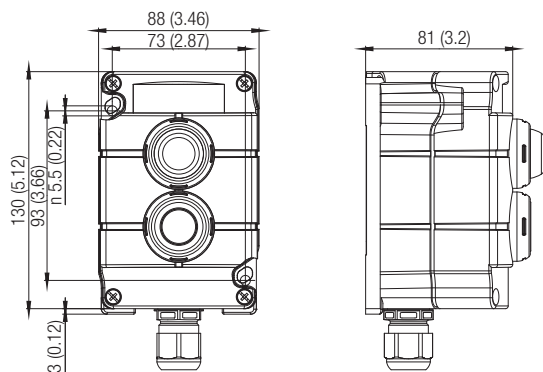
Protection class up to IP 66/IP 67

Technical data subject to change without notice.

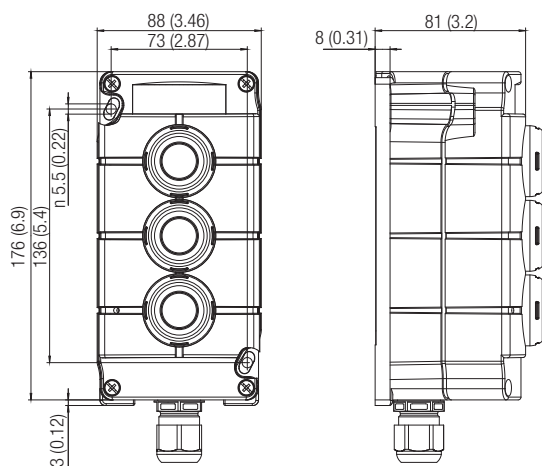
Control unit, single Type 07-3511-....



Control station, double Type 07-3512-....



Control station, triple Type 07-3513-....





Ordering information Actuator elements

Illustration	Description	Code no.
	Pushbutton with rubber membrane 5 loose labels: red, green, yellow, white, black	P7
	Double pushbutton with rubber membrane 5 loose labels: red, green, yellow, white, black	P2
	Emergency/Stop marked 'NOT/AUS EMERGENCY/STOP'	N8
	Locking mushroom push button pushed in without a key unlocked with a key DOM lock 4 A 185	K3
	Mushroom pushbutton, black	P8
	Position selector switch 2 positions, 0 + I latching	S9
	Position selector switch 3 positions I-0-II I + II latching I + II momentary-contact I latching, II momentary-contact I momentary-contact, II latching	S0 S1 S2 S3

Technical data subject to change without notice.

Ordering information Actuator elements

Illustration	Description	Code no.
	Lock (DOM) lockable in both positions key retractable in both positions lock 4 A 185	K0
	lockable in depressed position, key retractable in depressed position lock 4 A 185	K1
	lockable in initial position, key retractable in initial position lock 4 A 185 (tip lock)	K2
	Lock (RONIS) Lock 455 2 switching positions 0-I latching, key retractable	E0
	2 switching positions 0-I momentary contact, position I key not retractable	E1
	3 switching positions I-0-II latching on both sides, key retractable	E2
	Lamp red green yellow white blue	LR LG LY LW LB
	Illuminated button actuator red green yellow white blue	TR TG TY TW TB
	Blanking plug black, to cover unused holes in the front panel	B1
	Potentiometer actuating element black, scale 1 - 10	D0

Technical data subject to change without notice.

Ordering information Modules

Illustration	Description	Code no.	
	Switch module		
	1 NC/1 NO	4	
	2 NC	1	
	2 NO	2	
	Indicator light		
	red	R	
	green	G	
	yellow	Y	
	white	W	
	blue	B	
	Illuminated button		
	red	1 NO	RB
	green	1 NO	GB
	yellow	1 NO	YB
	white	1 NO	WB
	blue	1 NO	BB
	red	1 NC	RA
	green	1 NC	GA
	yellow	1 NC	YA
	white	1 NC	WA
blue	1 NC	BA	
	Potentiometer		
	Resistance values		
	1 kΩ	4	
	2.2 kΩ	5	
	4.7 kΩ	6	
	10 kΩ	7	
	Terminal block	6	
	with 6 modular terminals 2.5 mm ² , Ex e II		

Complete order no.

Actuator element resp. Lamp module operator



Switch module resp. Indicator light or Terminal block



Measuring instrument



Please insert code number.

Control unit, single Ex e 07-3511-10/Ex i 07-3514



Control unit, double Ex e 07-3512-10/Ex i 07-3515



Control unit, double Ex e 07-3512-10/Ex i 07-3515



Control unit, triple Ex e 07-3513-10/Ex i 07-3516



Control unit, triple Ex e 07-3513-10/Ex i 07-3516



Technical data subject to change without notice.

Ordering information Accessories

Illustration	Description	Order no.
	<p>Cable gland</p> <p>permanent entry of cables and leads</p> <p>Ex e, black domed cap nuts</p> <p>Ex i, blue domed cap nuts (intrinsically safe circuit)</p> <p>see capture Installation systems/Cable glands</p>	<p>03-6062-01..</p> <p>03-6065-00..</p>
	<p>Locking device</p> <p>(without padlock) for ComEx enclosure</p> <p>NIRO frame, transparent hood of high-quality thermoplast</p>	
	<p>Protective metal shroud</p> <p>for emergency stop actuating element</p> <p>to prevent accidental actuation</p>	
	<p>External earth stud</p> <p>for outside-connection</p>	
	<p>Conduit adapter</p> <p>tested adapter for ComEx enclosure</p> <p>with NPT internal thread</p> <p>Thread 1/2" NPT</p> <p>Thread 3/4" NPT</p>	
	<p>Earth plate ComEx</p> <p>for earthing of metal cable glands</p> <p>Thread 1 x M20</p> <p>Thread 2 x M20</p> <p>Thread 1 x M25</p>	<p>05-0012-0114</p> <p>05-0012-0115</p> <p>05-0012-0116</p>
	<p>Installation kit for control switches</p> <p>in control units</p> <p>for enclosures with wall thicknesses of 1 to 2 mm</p> <p>for enclosures with wall thicknesses of 2.5 to 5 mm</p>	<p>05-0091-0187</p> <p>05-0091-0188</p>

Technical data subject to change without notice.



- For Zone 1/21 and 2/22
- Positive break operation
- Latched and momentary-contact positions
- Easy installation
- Customer-specific solutions

This control switch has been designed to solve the variety of problems encountered in chemical and petrochemical plants and on explosion-proofed electrical machinery in zones 1 and 2 and in Zone 21 and 22. Four switch contacts as opening and closing elements in different permutations permit a variety of functions. The opener has a positive break operation. The switch actuator offers latched and momentary-contact positions with different switch positions. The control switch is supplied in double or triple ComEx enclosures, or in combination with other command devices, in control units. The actuating element can be locked with up to max. 3 padlocks.

Explosion protection

Marking ATEX	Ⓜ II 2G Ex de IIC T6 Gb Ⓜ II 2G Ex de ia IIC T6 Gb Ⓜ II 2G Ex tb IIIC T80°C Db
Certification	CML 14 ATEX 3073 X
Marking IECEx	Ex db eb IIC T6 Gb Ex db eb ia IIC T6 Gb Ex tb IIIC T80°C Db
Certification	IECEx CML 14.0029X
Other approvals and certificates, see www.bartec.de	
Ambient temperature	up to -55 °C ≤ T _a ≤ +60 °C (-20 °C to +60 °C for Zone 21 and 22)
Product printing	Standard: ATEX and IECEx marking. Other markings on request. Please specify in plain text.

Technical data

Connection	terminals 2.5 mm ²									
Conductor terminals	4 x 2.5 mm ²									
Rated insulation voltage	max. AC 690 V									
Rated current	max. 16 A									
Cable entry	Standard version: M20 x 1.5 for cables with Ø 7 to 13 mm Special version: M25 x 1.5 for cables with Ø 7 to 12 mm M25 x 1.5 for cables with Ø 10 to 17 mm									
Enclosure material	glass fibre reinforced plastic									
Protection class	IP 66/IP 67									
Contact material	AgSnO ₂									
Switching function	4 switch contacts NC/NO in different switch permutations Latching and momentary-contact functions with different switch positions									
Contacts	contacts with positive break operation (self-cleaning)									
Switch isolator (main motor switch)	DIN EN 60947-3 <table border="0"> <tr> <td>P/AC-3/AC-23 A</td> <td>AC-3</td> <td>AC-23</td> </tr> <tr> <td>230 V3</td> <td>3 ph/3 kW</td> <td>1ph/2.2 kW</td> </tr> <tr> <td>400 V3</td> <td>3 ph/5.5 kW</td> <td>1ph/3 kW</td> </tr> </table> I _e = AC-23/400 V/10 A	P/AC-3/AC-23 A	AC-3	AC-23	230 V3	3 ph/3 kW	1ph/2.2 kW	400 V3	3 ph/5.5 kW	1ph/3 kW
P/AC-3/AC-23 A	AC-3	AC-23								
230 V3	3 ph/3 kW	1ph/2.2 kW								
400 V3	3 ph/5.5 kW	1ph/3 kW								
Control switch according to DIN EN 60947-5-1 (auxiliary circuit switch)	<table border="0"> <tr> <td>AC-15</td> <td>400 V</td> <td>10 A</td> </tr> <tr> <td>AC-12</td> <td>400 V</td> <td>16 A</td> </tr> <tr> <td>DC-13</td> <td>24 V</td> <td>1 A</td> </tr> </table>	AC-15	400 V	10 A	AC-12	400 V	16 A	DC-13	24 V	1 A
AC-15	400 V	10 A								
AC-12	400 V	16 A								
DC-13	24 V	1 A								

Electrical data

Rated insulation voltage	U _i = 690 V U _e = 400 V
Rated impulse strength	U _{imp} = 6 kV
Conditional rated short/circuit current at 400 V	I _e = 4 kA
Short circuit current (general-purpose l.v.h.b.c. back-up fuse for the protection of cables and circuits)	max. 16 A
Nominal thermal current	(+40 °C) I _{the} = 16 A (+60 °C) I _{the} = 11 A
Dimensions	See dimensions for complete device

Selection chart

Labelling	Code no.	Labelling	Code no.	Switching arrangement of control switch	Code no.	Switching arrangement of control switch	Code no.
0 - I	01	SENKEN - HEBEN	14		A01		C06
I - II	02	REMOTE - LOCAL	15				
I - 0 - II	03	AUS - BETRIEB - EIN	16		A02		C07
0 - I - II	04	AUS - 0 - EIN	17				
0 - I - II - III	05	AUF - 0- AB	18		A03		E06
0 - I - II - III - IV	06	OUT - OFF - HAND	19				
AUS - EIN	07	LOCAL - REMOTE - AUTO	20		A04		E09
OFF - ON	08	STOP - 0 - START	21				
HAND - 0 - AUTO	09	AUS - AUTO - EIN	22		H05		L01
HAND - 0 - AUTO - EIN	10	OFF - AUTO - ON	23				
HAND - BETRIEB - I	11	0 - IN -START	24	Other variants available.		Switching arrangement for switch isolator	
STOP - START	12	ENTRIEGELT - VERRIEGELT	25				
HAND - AUTO	13						

Complete order no. Control unit, double 07-3512-10G

Control unit, triple 07-3513-10G

Labelling position selector

Switching arrangement

Switch module or indicator light

Other labellings and switching arrangements on request.

As standard, there are 3 bore holes at the protective shroud for padlocks.
Where no further information is given on the end position,
bore holes are drilled in the position 0 (I) or as requested.

Technical data subject to change without notice.



- Standard enclosures
- Corrosion resistance
- Customer-tailored solutions

This series features control, signalling and display units fitted into stainless steel standard enclosures. The enclosures are certified for use in Zone 1/21 and Zone 2/22. The equipment is highly corrosion resistant due to high quality stainless steel grades. Either plastic or metal glands are used for electrical connection. On request, BARTEC will equip the enclosures with corresponding control, signalling and display units and cable glands and supply the required labels.

Explosion protection

Marking ATEX II 2G Ex de IIC T6 Gb
 II 2D Ex tb IIIC T80 °C Db

Certification IBEEx 12 ATEX 1099

Marking IECEx Ex de IIC T6 Gb
 Ex tb IIIC T80 °C Db

Certification IECEx IBE 12.0031

Other approvals and certificates, see www.bartec.de

Permissible ambient temperature -20 °C to +40 °C
 -55 °C to +60 °C
 (depending on the fitted components)

Product printing Standard: ATEX and IECEx marking.
 Other markings on request.
 Please specify in plain text.

Technical data

Connection	Terminals 2.5 mm ²
Bore hole for bushings	standard version: 1 x M20 x 1.5 special versions: 2 x M20 x 1.5 up to max. 1 x M40 x 1.5
Enclosure	Edelstahl 316 L, 312 L
Protection class	IP 65/IP 66

Technical data subject to change without notice.

