



Local control stations for Zone 1 and Zone 21

Features

- The right size/material enclosure
- Optimum functionality thanks to the great variety of components
- Customised planning and implementation
- Certified to many standards

Description

For explosion-proof local controllers BARTEC offers an extensive range of polyester enclosures with screw fixing lid and hinged doors.

BARTEC local control stations are certified for use in hazardous areas with combustible gas or dust.

The enclosures must be produced in compliance with the requirements for the "Increased Safety" type of protection or "Protection by Enclosure".

Depending on the specification and number of equipment, various enclosure types and sizes are available. The control stations will be equipped according to your individual requirements with control units, alarm units, display units and bus interface modules.

Industrial serial products can also be fitted in the controllers for Zone 21 with the tD "Protection by Enclosure" type of protection.

The components are mounted either on DIN rails or installed on the front lid. Depending on the design and requirements, BARTEC not only

supplies control units but also offers the complete wiring to terminal blocks.

The supply range includes enclosures made of aluminium, polyester and stainless steel. These are fitted with certified modules and glands at points of penetration in the wall of the enclosure.

Fields of application

Chemical and petrochemical industry, process and plant engineering, pharmaceutical and food industry, OFF SHORE areas.

Thanks to their great variety, the enclosure are particularly suited for local control stations and bus interface units.



➤ **Explosion protection**

Ex protection type

(depending on the components installed)

for Zone 1

⊕ II 2(1)G Ex demq ia/ib [ia] IIA, IIB, IIC T6, T5, T4

⊕ II 2 G Ex demq ia/ib [ib] IIA, IIB, IIC T6, T5, T4

for Zone 21

⊕ II 2D Ex tD [ibD] A21 IP6X T 80 °C to 100 °C (at a distance of 5 K)

⊕ II 2 (1)D Ex tD [iaD] A21 IP6X T 80 °C to 100 °C (at a distance of 5 K)

Ambient temperature

(special design on request)

-20 °C to +40 °C

-55 °C to +70 °C

Certification

PTB 02 ATEX 1159 for Zone 1

IBExU00ATEX1079 for Zone 21

IECEx PTB 10.0043

(Further certifications on request)

➤ **Technical data**

Material

Type 07-3101 with lid

aluminium
ALSi 12, pressure or chill casting
RAL 7001 silver grey

Type 07-3103 with lid

glass-fibre reinforced polyester
RAL 9005, deep black

Type 07-3109 mit door

glass-fibre reinforced polyester
RAL 9011, graphite black

Type 07-3113 with door

High-quality stainless steel 304

Type 07-3132 with lid

High-quality stainless steel 316L
Enclosure with lid

Type 07-3136 with door

High-quality stainless steel 316L

Seals

EPDM (Standard)

-20 °C to +85 °C

PU (Standard at 07-3109)

-20 °C to +80 °C

Silicone

-55 °C to +100 °C

Mechanical strength

(acc. to DIN EN 60079-0: 2006)

Impact energy 7 Nm

Protection class

(higher degree of protection on request)

EN 60529/IEC 60529

IP 54/IP 65

■ **Electrical data**

Rated voltage

up to 1000 V

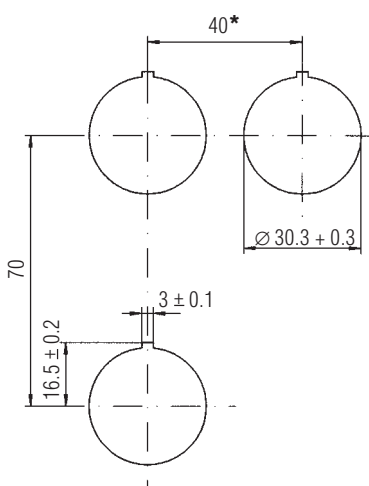
Rated current

max. 160 A depending on devices fitted

max. 125 A (for Zone 21)

Mounting dimensions

for switching and light elements according to EN 60947-5-1



*Recommended distance for mushroom pushbutton, emergency switch as well as position selector with protective shroud: 100 mm (3.94 in).

Configuration data for control stations

Type of enclosure

07-31 -

Dimensions

Width _____ Height _____ Depth _____

Nominal voltage

AC _____ V / DC _____ V

Threaded glands



Actuating elements



Features

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

Description

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 65/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 with NBR sealing 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.

Explosion protection

Ex protection type

- ⊕ II 2G Ex e II
- ⊕ II 2D Ex td A21 IP 65, IP 66, IP 67
PTB 00 ATEX 3114 U
- Ex e II
- Ex td A21 IP 65, IP 66, IP 67
- IECEx PTB 08.0037U

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 1, AEx e IIC, Ex e IIC
UL E184198
INMETRO 2003 EC02 CP088 U
0044

Ambient and operating temp. range

- 55 °C to +70 °C (Zone 1)
- 20 °C to +70 °C (Zone 21)

permitted for zones

- Zone 1
- Zone 21 (Min. requis IP 6X,
Temperature range -20 °C)

Technical data

Storage and transport temperature

-55 °C to +70 °C

Type of protection

See table

Impact resistance

7 Nm (Lamp actuators 4 Nm)

Material

- Enclosure thermoplastic
- Sealings EPDM, NBR for increased
resistance to oil

Weight

See table

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


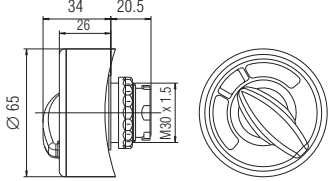
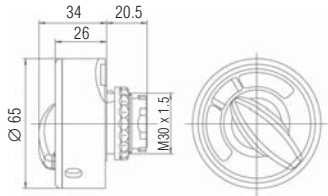

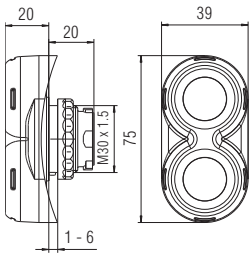
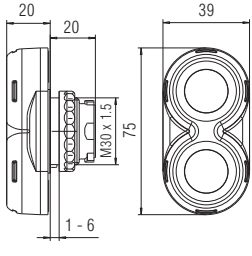

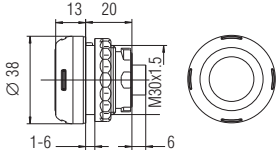
Protection class of the actuating elements

Description	Code	Temperature range -55 °C to +70 °C	Temperature range -20 °C to +70 °C
Position selector switch	05-0003-007...	IP 54	IP 66, IP 67
Double push button actuator	05-0003-0074.. (*BN) 05-0003-0075.. (*BN)	IP 54 IP 54	IP 6X IP 6X
Pushbutton	05-0003-000700 (*BN)	IP 54	IP 66, IP 67
Mushroom pushbutton	05-0003-001800 (*BN)	IP 54	IP 66, IP 67
Emergency Stop	05-0003-000800 (*BN)	IP 54	IP 66, IP 67
Locking mushroom pushbutton	05-0003-001203 (*BN)	IP 54	IP 66, IP 67
Lock (DOM)	05-0003-0012.. (*BN)	IP 54	IP 66, IP 67
Lock (RONIS)	05-0003-006100 (*BN)	IP 54	IP 66, IP 67
Position selector switch BS (2 positions)	05-0003-00090. BS	IP 54	IP 66, IP 67
Position selector switch BS (3 positions)	05-0003-001... BS	IP 54	IP 66, IP 67
Key switch (2 positions)	05-0003-007.... (*BN)	IP 54	IP 65
Key switch (3 positions)	05-0003-0079.. (*BN) 05-0003-0080.. (*BN)	IP 54 IP 54	IP 65 IP 65
Position selector switch (2 positions)	05-0003-0009... (*BN)	IP 54	IP 66, IP 67
Position selector switch (3 positions)	05-0003-001.... (*BN)	IP 54	IP 66, IP 67
Lamp	05-0003-001.... (*BN)	IP 54	IP 66, IP 67
Illuminated button actuator	05-0003-006.... (*BN)	IP 54	IP 66, IP 67
Potentiometer actuator	05-0003-007600 (*BN)	IP 54	IP 66, IP 67
Blanking plug	05-0003-001900 (*BN)	IP 54	IP 66, IP 67

*BN for increased resistance to oil (with NBR seal)



Selection chart

Illustration	Dimensions	Description	Order no.
	<p>for ComEx enclosure</p>  <p>for Control unit/ComEx 316L</p> 	<p>Position selector switch black with protective collar, lockable* only for switch module (2-pole)</p> <p>0 - I for control unit (flat) for ComEx enclosure</p> <p>I - II for control unit (flat) for ComEx enclosure</p> <p>I - 0 - II for control unit for ComEx enclosure</p> <p>HAND - 0 - AUTO for control unit (flat) for ComEx enclosure</p> <p>MAN - 0 - AUTO for control unit (flat) for ComEx enclosure</p> <p>Weight 74 g</p> <p>* 3 boreholes in the protective collar to fit padlocks in the switch position 0 (I), or to customer specifications.</p>	<p>05-0003-007001 05-0003-007101</p> <p>05-0003-007002 05-0003-007102</p> <p>05-0003-007203 05-0003-007303</p> <p>05-0003-007224 05-0003-007324</p> <p>05-0003-007225 05-0003-007325</p>
	<p>for ComEx enclosure</p>  <p>for Control unit/ComEx 316L</p> 	<p>Double pushbutton actuator with EPDM rubber membrane or with NBR sealing, 5 labels red, green, yellow, white, black, supplied loose</p> <p>for ComEx enclosures with EPDM sealing for ComEx enclosures with NBR sealing</p> <p>for control units with EPDM sealing for control units with NBR sealing</p> <p>Weight 52 g</p>	<p>05-0003-007500 05-0003-007500BN</p> <p>05-0003-007400 05-0003-007400BN</p>
		<p>Pushbutton with EPDM rubber membrane or with NBR sealing, 5 labels red, green, yellow, white, black, supplied loose</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 24 g</p>	<p>05-0003-007000 05-0003-007000BN</p>

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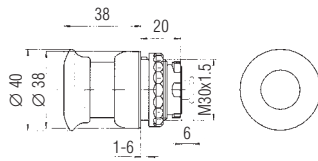

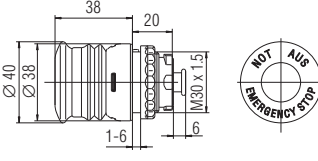

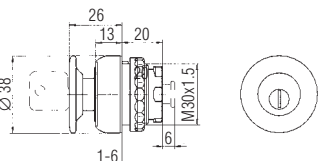

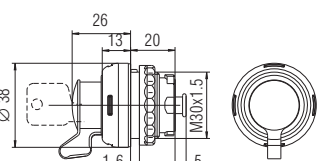
Illustration	Dimensions	Description	Order no.
		<p>Mushroom pushbutton with EPDM rubber membrane or with NBR sealing, black</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 24 g</p>	<p>05-0003-001800 05-0003-001800BN</p>
		<p>EMERGENCY STOP slam button with EPDM rubber membrane or with NBR sealing, pushbutton marked "NOT-AUS EMERGENCY STOP - Pull to Release"</p> <p>DIN EN 60204-1: 2007 DIN EN 60947-5-1: 2005 (VDE 0660 Part 200)</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 46 g</p>	<p>05-0003-000800 05-0003-000800BN</p>
		<p>Locking mushroom pushbutton, push in without key, unlock with key, DOM lock 4 A 185</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 70 g</p>	<p>05-0003-001203 05-0003-001203BN</p>
		<p>Lock DOM lock 4 A 185</p> <p>Lockable in both positions, Key retractable in both positions</p> <p>with EPDM sealing with NBR sealing</p> <p>Lockable in the depressed position, Key retractable in the depressed position</p> <p>with EPDM sealing with NBR sealing</p> <p>Tip lock lockable in the initial positions, Key retractable in the initial positions</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 69 g</p>	<p>05-0003-001200 05-0003-001200BN</p> <p>05-0003-001201 05-0003-001201BN</p> <p>05-0003-001202 05-0003-001202BN</p>




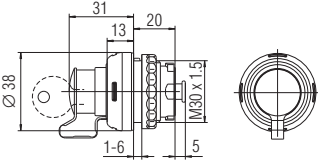

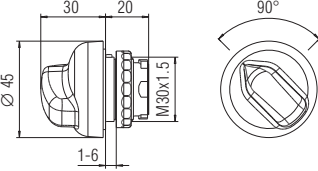
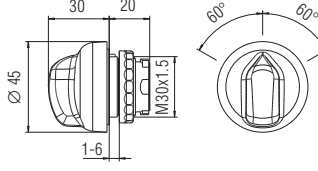

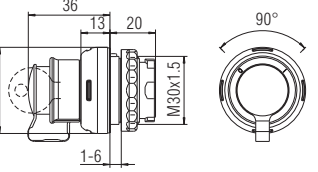
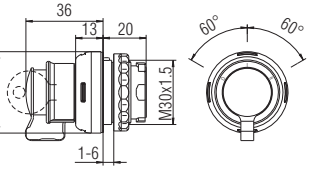
Illustration	Dimensions	Description	Order no.
		<p>Lock RONIS lock 455</p> <p>Lockable in both positions, Key retractable in both positions</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 75 g</p>	<p>05-0003-006100 05-0003-006100BN</p>
	<p>2 switching positions</p>  <p>3 switching positions</p> 	<p>Position selector switch BS, black, with 2 or 3 switching positions, turned 90° for ComEx enclosures</p> <p>0 - I for control units for ComEx enclosures</p> <p>05-0003-000900BS 05-0003-000901BS</p> <p>I - 0 - II (I + II latching) for control units for ComEx enclosures</p> <p>05-0003-001000BS 05-0003-001100BS</p> <p>I - 0 - II (I + II momentary contact) for control units for ComEx enclosures</p> <p>05-0003-001001BS 05-0003-001101BS</p> <p>I - 0 - II (I latching, II momentary) for control units for ComEx enclosures</p> <p>05-0003-001002BS 05-0003-001102BS</p> <p>I - 0 - II (I momentary, II latching) for control units for ComEx enclosures</p> <p>05-0003-001003BS 05-0003-001103BS</p> <p>Weight 33 g</p>	<p>05-0003-000900BS 05-0003-000901BS</p> <p>05-0003-001000BS 05-0003-001100BS</p> <p>05-0003-001001BS 05-0003-001101BS</p> <p>05-0003-001002BS 05-0003-001102BS</p> <p>05-0003-001003BS 05-0003-001103BS</p>
	<p>2 switching positions</p>  <p>3 switching positions</p> 	<p>Key-operated switch, RONIS lock 456, with 2 or 3 switching positions, turned 90° for ComEx enclosures</p> <p>0 - I for control units latching, key retractable for ComEx enclosures</p> <p>05-0003-007700 05-0003-007800</p> <p>0 - I for control units momentary contact, Position I key not retractable for ComEx enclosures</p> <p>05-0003-007701 05-0003-007801</p> <p>I - 0 - II for control units (I + II latching), key retractable for ComEx enclosures</p> <p>05-0003-007900 05-0003-008000</p> <p>Weight 49 g</p>	<p>05-0003-007700 05-0003-007800</p> <p>05-0003-007701 05-0003-007801</p> <p>05-0003-007900 05-0003-008000</p>




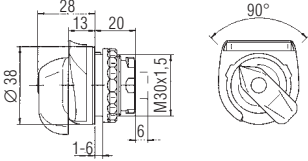
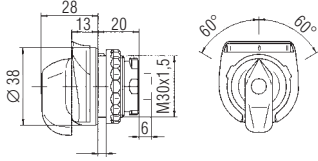

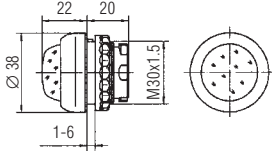

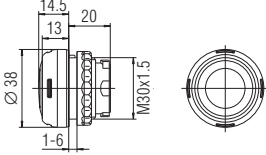

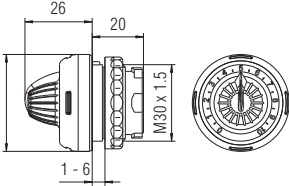

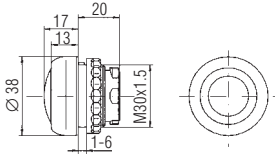
Illustration	Dimensions	Description	➔ Order no.
	<p>2 switching positions</p>  <p>3 switching positions</p> 	<p>Position selector switch, black, with 2 or 3 switching positions</p> <p>0 - I for control units with EPDM sealing with NBR sealing</p> <p> turned 90° for ComEx enclosures with EPDM sealing with NBR sealing</p> <p>I - 0 - II for control units (I + II latching) with EPDM sealing with NBR sealing</p> <p> turned 90° for ComEx enclosures with EPDM sealing with NBR sealing</p> <p>I - 0 - II for control units (I + II momentary) with EPDM sealing with NBR sealing</p> <p> turned 90° for ComEx enclosures with EPDM sealing with NBR sealing</p> <p>I - 0 - II for control units (I latching, II momentary contact) with EPDM sealing with NBR sealing</p> <p> turned 90° for ComEx enclosures with EPDM sealing with NBR sealing</p> <p>I - 0 - II for control units (I momentary contact, II latching) with EPDM sealing with NBR sealing</p> <p> turned 90° for ComEx enclosures with EPDM sealing with NBR sealing</p> <p>Weight 33 g</p>	<p>05-0003-000900 05-0003-000900BN</p> <p>05-0003-000901 05-0003-000901BN</p> <p>05-0003-001000 05-0003-001000BN</p> <p>05-0003-001100 05-0003-001100BN</p> <p>05-0003-001001 05-0003-001001BN</p> <p>05-0003-001101 05-0003-001101BN</p> <p>05-0003-001002 05-0003-001002BN</p> <p>05-0003-001102 05-0003-001102BN</p> <p>05-0003-001003 05-0003-001003BN</p> <p>05-0003-001103 05-0003-001103BN</p>
		<p>Lamp module actuator</p> <p>red with EPDM sealing with NBR sealing</p> <p>green with EPDM sealing with NBR sealing</p> <p>yellow with EPDM sealing with NBR sealing</p> <p>white with EPDM sealing with NBR sealing</p> <p>blue with EPDM sealing with NBR sealing</p> <p>Weight 19 g</p>	<p>05-0003-001300 05-0003-001300BN</p> <p>05-0003-001400 05-0003-001400BN</p> <p>05-0003-001500 05-0003-001500BN</p> <p>05-0003-001600 05-0003-001600BN</p> <p>05-0003-001700 05-0003-001700BN</p>



Illustration	Dimensions	Description	Order no.
		<p>Illuminated button actuator</p> <p>red with EPDM sealing red with NBR sealing</p> <p>green with EPDM sealing green with NBR sealing</p> <p>yellow with EPDM sealing yellow with NBR sealing</p> <p>white with EPDM sealing white with NBR sealing</p> <p>blue with EPDM sealing blue with NBR sealing</p> <p>Weight 19 g</p>	<p>➔ 05-0003-006500 05-0003-006500BN</p> <p>05-0003-006600 05-0003-006600BN</p> <p>05-0003-006700 05-0003-006700BN</p> <p>05-0003-006800 05-0003-006800BN</p> <p>05-0003-006900 05-0003-006900BN</p>
		<p>Potentiometer actuator, black, durable and abrasion-resistant, Scale gradation from 0 to 10</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 28 g</p>	<p>05-0003-007600 05-0003-007600BN</p>
		<p>Blanking plug, to cover unused holes in the cover</p> <p>with EPDM sealing with NBR sealing</p> <p>Weight 20 g</p>	<p>05-0003-001900 05-0003-001900BN</p>





Switch module with terminals for rail-mounted installation

Explosion protection

Ex protection type

- Ex II 2G Ex de IIC Gb
- Ex I M2 Ex de I Mb
- Class I, Zone 1, AEx de IIC, Ex de IIC Class I, Div. 2, Groups A, B, C, D

Certification

- PTB 99 ATEX 1043 U
- UL E184198
- IECEx PTB 07.0046 U
- INMETRO 2003EC02CP081U

Ambient temperature

-55 °C to +60 °C

Technical data

Protection class

determined by the actuating element and ComEx enclosure, terminals IP 20

Rated insulation voltage

690 V

Rated voltage

400 V	400 V	110 V	24 V
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Utilization category

AC-12	AC-15	DC-13	DC-13
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Rated operating currents

16 A	10 A	0,5 A	1 A
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Conventional thermal current I_{th}

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

AgSnO₂

Enclosure material

Thermoplastic

Connection

Terminals 2.5 mm², fine stranded

Mechanical life

10⁶ switching cycles

Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 70 g

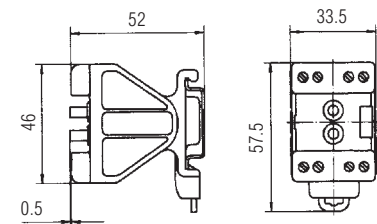
Mounting

on mounting rail TS 35 x 7.5

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

Type of contacts	Code no.	Actuating element	Code no.
2 NC 	1	Pushbutton	0700
		Double push button 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 both positions, DOM lock	1200
		Lockable in the depressed position, DOM lock	1201
		Lockable in the initial position, DOM lock	1202
		Locking-type mushroom pushbutton	1203
		Lockable in both positions, RONIS lock	6100

Complete order no.

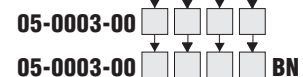
Switch module without actuating element 07-3321-1 00

Actuating element

Standard

Increased oil resistance

Please enter code number.





Switch module with terminals for panel-mounted installation

Explosion protection

Ex protection type

- Ex II 2G Ex de IIC Gb
- Ex I M2 Ex de I Mb
- Class I, Zone 1, AEx de IIC, Ex de IIC Class I, Div. 2, Groups A, B, C, D

Certification

- PTB 99 ATEX 1043 U
- UL E184198
- IECEX PTB 07.0046 U
- INMETRO 2003EC02CP081U

Ambient temperature

-55 °C to +60 °C

Technical data

Protection class

Determined by actuating element and control station enclosure, terminals IP 20 (IEC 60529).

Rated insulation voltage

690 V

Rated 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 NC and 1 NO or
- 2 NC or 2 NO

Contact material

AgSnO₂

Enclosure material

Thermoplastic

Connection

Terminals 2.5 mm², fine stranded

Mechanical life

10⁶ switching cycles

Storage temperature

-55 °C to +70 °C

Weight

approx. 87 g

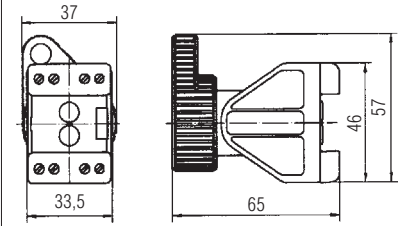
Mounting

locked, by bayonet lock

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

Type of contact	Code no.	Actuating element	Code no.
2 NC 	1	Pushbutton	0700
		Double push button actuator	7400
		Emergency stop NOT-AUS	0800
		Selector switch 0 + I latching, 2 positions	0900
		Selector switch I + II latching, 3 positions	1000
		Selector switch I + II momentary-contact, 3 positions	1001
		Selector switch I latching, II momentary-contact, 3 positions	1002
2 NO 	2	Selector switch I momentary-contact, II latching, 3 positions	1003
		Selector switch with protective collar 0 + I	7001
		Selector switch with protective collar I + 0	7002
		Selector switch with protective collar I + 0 + II	7203
		Mushroom pushbutton, black	1800
1 NC + NO 	4	Lockable in both positions, DOM lock	1200
		Lockable in the depressed position, DOM lock	1201
		Lockable in the initial position, DOM lock	1202
		Locking-type mushroom pushbutton	1203
		Lockable in both positions, RONIS lock	6100
		Key switch, 2 switching positions latching, key retractable 0 + I	7700
		Key switch, 2 switching positions momentary contact, not retractable 0 + I	7701
Key switch, 2 switching positions momentary contact, not retractable 0 + I	7900		

Complete order no.

Switch module without actuating element 07-3323-1 00

Actuating element

Standard

05-0003-00

Increased oil resistance

05-0003-00 BN

Please enter code number.



Lamp module with terminals for rail-mounted installation

Explosion protection

Ex protection type

Ex II 2G Ex de IIC Gb
 Ex I M2 Ex de I Mb
 Class I, Zone 1, AEx de IIC, Ex de IIC
 Class I, Div. 2, Groups A, B, C, D

Certification

PTB 97 ATEX 1064 U
 UL E184198
 IECEx PTB 10.0014 U
 INMETRO2003EC02CP096U

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, 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

< 1 W

Lamp

LED
 red, green, yellow, white, blue

Illumination

very bright, over a visible angle of 180°

Enclosure material

Thermoplastic

Connection

Terminals 2.5 mm², fine stranded

Electrical life

>10⁵ running hours

Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 90 g

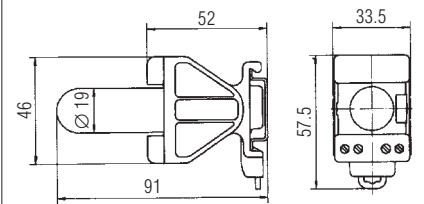
Mounting

on mounting rail TS 35 x 7.5
 (DIN EN 60715)

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

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.



Lamp module with terminals for panel-mounted installation

Explosion protection

Ex protection type

- Ex II 2G Ex de IIC Gb
- Ex I M2 Ex de I Mb
- Class I, Zone 1, AEx de IIC, Ex de IIC Class I, Div. 2, Groups A, B, C, D

Certification

- PTB 97 ATEX 1064 U
- UL E184198
- IECEX PTB 10.0014 U
- INMETRO 2003EC02CP096U

Ambient temperature

- 55 °C to +50 °C
- +60 °C (AC/DC 12 to 24 V)

Technical data

Protection class

Determined by actuating element and control station enclosure, 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

$\leq 1 \text{ W}$

Lamp

LED
red, green, yellow, white, blue

Illumination

very bright, over a visible angle of 180°

Enclosure material

Thermoplastic

Connection

Terminals 2.5 mm², fine stranded

Electrical life

$> 10^5$ running hours

Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 90 g

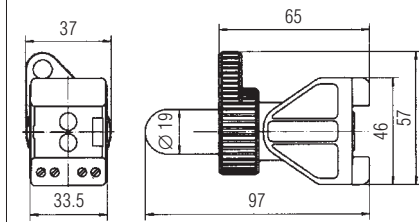
Mounting

locked, by bayonet lock

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

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

07-3353-11 0

Actuating element

Standard

05-0003-001 00

Increased oil resistance

05-0003-001 00BN

Please enter code number.



Illuminated button with terminals for rail-mounted installation

Explosion protection

Ex protection type

- Ex II 2G Ex de IIC
- Ex I M2 Ex de I
- Class I, Zone 1, AEx de IIC, Ex de IIC
- Class I, Div. 2, Groups A, B, C, D

Certification

- PTB 97 ATEX 1064 U
- UL E184198
- IECEx PTB 10.0014 U
- INMETRO 2003 EC 02 CP096 U

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, 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, over a visible angle of 180°

Contact element

Rated voltage	
230 V	24 V
Utilization category	
AC-15	DC-13
Rated operating currents	
1 A	0,25 A

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

Connection

Terminals 2.5 mm², fine stranded

Electrical life

>10⁵ running hours

Mechanical life

>10⁵ switching cycles

Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 110 g

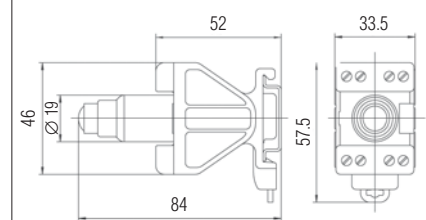
Mounting

on mounting rail TS 35 x 7.5 (DIN EN 60715)

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

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



Illuminated button with terminals for panel-mounted installation

Explosion protection

Ex protection type

Ex de IIC
 Ex de I
 Class I, Zone 1, AEx de IIC, Ex de IIC
 Class I, Div. 2, Groups A, B, C, D

Certification

PTB 97 ATEX 1064 U
 UL E184198
 IECEx PTB 10.0014 U
 INMETRO 2003 EC02 CP096 U

Ambient temperature

-55 °C to +50 °C
 +60 °C (AC/DC 12 to 24 V)

Technical data

Protection class

determined by actuating element and control station enclosure, 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

$\leq 1 \text{ W}$

Lamp

LED: red, green, yellow, white, blue

Illumination

very bright, over a visible angle of 180°

Contact element

Rated voltage

230 V | 24 V

Utilization category

AC-15 | DC-13

Rated operating current

1 A | 0.25 A

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

Connection

Terminals 2.5 mm², 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. 130 g

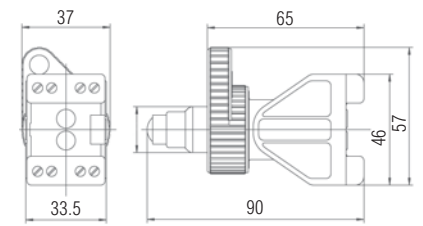
Mounting

locked, by bayonet lock

Shock resistance

DIN EN 60068-2-27: 1995, 30 g 18 ms

Dimensions



Selection chart

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

Complete order no.

Illuminated button without actuating element

07-3363-1 0

Actuating element

Standard

05-0003-006 00

Increased oil resistance

05-0003-006 00BN

Please enter code number.



Potentiometer with terminals for rail-mounted installation

Explosion protection

Ex protection type

- Ex II 2G Ex de IIC
- Ex I M2 Ex de I Ex de IIC

Certification

PTB 05 ATEX 1064 U
IECEX PTB 10.0017 U

Ambient temperature

-55 °C to +60 °C

Technical data

Protection class

determined by the actuating element and ComEx enclosure, terminals IP 20

Rated insulation voltage

500 V

Max. rated voltage

AC/DC 320 V

Resistance

1 kΩ to 10 kΩ

Curve shape

linear

Resistance tolerance

± 20 %

Rated output

max. 1 W at $T_a \leq +40$ °C

Resistor material

carbon film on ceramics

Rotation

mech. 285° -5°
electr. about 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 mm², fine stranded

Mechanical life

25000 sinusoidal cycles

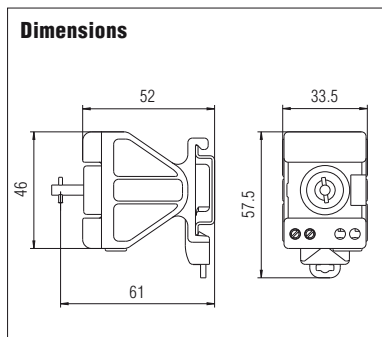
Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 71 g

Dimensions



Selection chart

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

Please enter code number.

Actuating element

Standard (Skala 1-10)

Order no. 05-0003-007600

Increased oil resistance (Skala 1-10)

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 320 V
potentiometer drive shaft can only be operated with actuating element or has to be deenergized.



Potentiometer with terminals for panel-mounted installation

Explosion protection

Ex protection type

II 2G Ex de IIC

I M2 Ex de I

Ex de IIC

Certification

PTB 05 ATEX 1064 U

IECEx PTB 10.0017 U

Ambient temperature

-55 °C to +60 °C

Technical data

Protection class

determined by actuating element and control station enclosure, terminals IP 20 (IEC 60529).

Rated insulation voltage

500 V

Max. rated voltage

AC/DC 320 V

Resistance

1 kΩ to 10 kΩ

Curve shape

linear

Resistance tolerance

± 20 %

Power consumption

max. 1 W at T_a ≤ +40 °C

Resistor material

carbon film on ceramics

Rotation

mech. 285° -5°

electr. about 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 mm², fine stranded

Mechanical life

25000 sinusoidal cycles

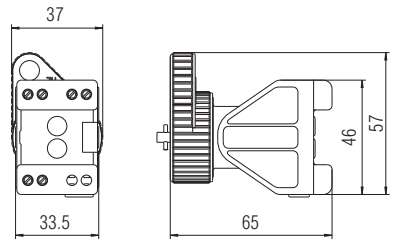
Storage and transport temperature

-55 °C to +70 °C

Weight

approx. 88 g

Dimensions



Selection chart

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

07-3373-1D 0

Please enter code number.

Actuating element

Standard (scale 1-10)

Order no. 05-0003-007600

Increased oil resistance (scale 1-10)

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 320 V potentiometer drive shaft can only be operated with actuating element or has to be deenergized.



Control switch

Features

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

Description

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

Ex protection type

⊕ II 2G Ex de IIC

⊕ I M2 Ex de I

Class I, Zone 1, AEx de IIC, Ex de IIC

Class I, Div. 2, Group A, B, C, D

Certification

PTB 99 ATEX 1043 U

UL E184198

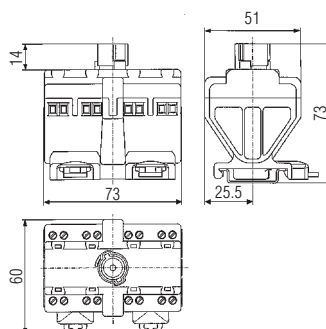
IECEx PTB 07.0046 U

INMETRO 2003 EC02 CP0814

Permissible ambient temperature

-55 °C to +60 °C

Dimensions



Technical data

Connection

Terminals 2.5 mm², fine stranded

Contact material

AgSnO₂

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

able to be installed in double and triple
ComEx enclosures in control units

Switch isolator

DIN EN 60947-3 (main motor switch)

P/AC-3/AC-23	AC-3	AC-23
230 V	3ph/3kW	1ph/2.2 kW
400 V	3ph/5.5 kW	1ph/3 kW

I_e = 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 = 450 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



Selection chart

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.

Selection chart

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

*In principle, 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), other to customer specifications.