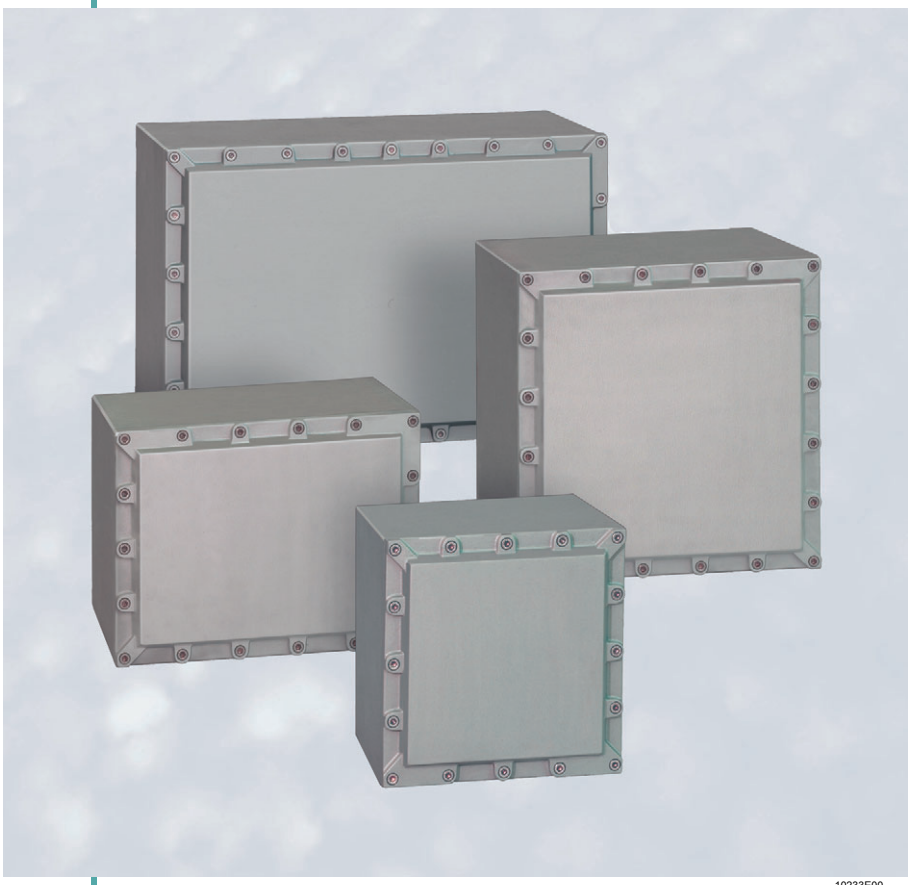


10233E00

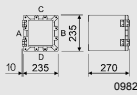
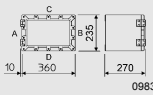
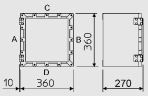
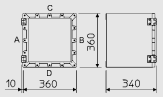
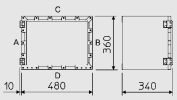
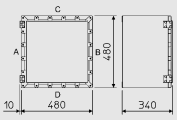
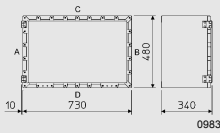
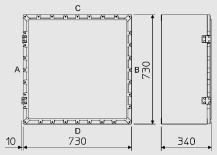
EEx d Enclosures
in Light Metal or stainless steel
Flameproof Encapsulation
CUBEx Series 8264

- Flexible modular design for combining enclosures
- Can be used
  – in Zone 1 and Zone 2
  – in Zone 21 and Zone 22
- optional: glass windows and cover hinges
- Entry method direct and indirect
- D2D bushing

The straight walled CUBEx design of enclosures, are utilised for the building of control and distribution systems, control panels and terminal boxes. Installed industrial sparking electrical components are planned and wired in accordance to the customer's requirements. Control and indicating equipment are fitted directly in to the cover. The enhanced features of the CUBEx system allows unique possibilities of D2D connections, therefore reducing the necessity for inter-connection chambers.

Zones 1 & 2, 21 & 22

Selection table Aluminium version

Version	Total dimensions LxWxH [mm]	Internal dimensions LxWxH [mm]	max. Power loss [W] / Temperature class T6	T5	T4	**Ordering code**	Weight kg
 09829E00	235x235x270	163x163x192 *	55	80	170	**8264/-112-3..0**	18,0
 09830E00	360x235x270	288x173x210 *	75	120	235	**8264/-212-3..0**	24,0
 09831E00	360x360x270	288x288x192 *	115	160	320	**8264/-222-3..0**	31,0
with reinforced cover	360x360x270	288x288x192 *	115	160	320	**8264/-222-3..3**	36,0
 09832E00	360x360x340	288x288x262 *	125	190	370	**8264/-223-3..0**	35,0
with reinforced cover	360x360x340	288x288x262 *	125	190	370	**8264/-223-3..3**	40,0
 09833E00	480x360x340	408x288x262 *	160	240	465	**8264/-323-3..0**	44,0
with reinforced cover	480x360x340	408x288x262 *	160	240	465	**8264/-323-3..3**	50,0
 09834E00	480x480x340	408x408x262 *	200	300	565	**8264/-333-3..0**	55,0
with reinforced cover	480x480x340	408x408x262 *	200	300	565	**8264/-333-3..3**	64,0
 09835E00	730x480x340	658x408x262 *	301	447	810	**8264/-933-3..0**	82,0
with reinforced cover	730x480x340	658x408x262 *	301	447	810	**8264/-933-3..3**	101,0
 09836E00	730x730x350	658x658x262 *	347	520	933	**8264/-994-3..0**	125,0
with reinforced cover	730x730x340	658x658x262 *	347	520	933	**8264/-993-3..3**	148,0

* Regardless the thickness of the mounting plate

Stainless steel version on request

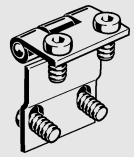
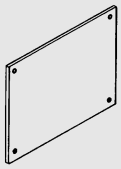
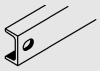
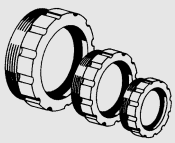
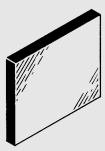
EEx d Enclosures in Light Metal or Stainless Steel
Flameproof Encapsulation
CUBEx Series 8264

Technical Data			
Version	Series 8264		
Gas explosion protection	Standard	for - 20 °C ... + 40 °C	
		⟨Ex⟩ II 2G EEx d IIB T.*	
		⟨Ex⟩ II 3G EEx d IIB T.*	
		* T4, T5, T6 depends on components used	
	Special	Extension of the ambient temperature	
	Option 1	Empty EnclosureType	
		8264/-112	- 50 °C ... + 50 °C
		8264/-212	
		8264/-213	
		8264/-222	
		8264/-223	
		8264/-323	
		8264/-322	
		8264/-332	
		8264/-333	
		8264/-932	- 30 °C ... + 50 °C
		8264/-933	
		8264/-992	- 20 °C ... + 50 °C
		8264/-993	
		8264/-994	
		for - 20 °C ... + 50 °C	
	Option 2	EEx d IIB + H_2	
Certificates	KEMA 01 ATEX 2145 UL E231214 VNIIEF CTB-577.02 KDB 02.E.279X		
Conformity	EN 50 014ff EN 60 947-1 EN 60 439-1 GOST R 51330ff PN-EN 50014ff NEC 500, NEC 505 CEC		
Rated operational voltage U_e	max. 11 kV, AC/DC		
Rated working current I_e	max. 1.250 A		
Terminals	max. 300 mm^2		
Degree of protection	IP 66 (EN 60 529) NEMA 4X		
Housing	Aluminium (AlSi 7Mg) (saltwater-proof according to EN 13890) or stainless steel (S5316L)		

Technical Data

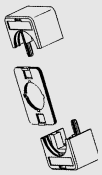
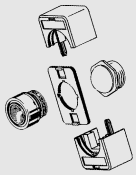
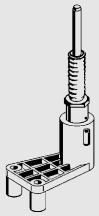
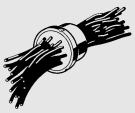
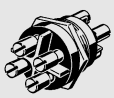
Version	Connection chamber series 8125
Explosion protection	Ⓔx II 2 G EEx e T5 or T6 depends on components used
Certificates	PTB 01 ATEX 1001
Conformity	EN 50 014ff EN 60 947-1 EN 60 439-1 GOST R 51330ff PN-EN 50014ff NEC 500, NEC 505 CEC
Rated operational voltage U_e	max. 1100 V, AC/DC
Rated working current I_e	max. 630 A
Terminals	max. 240 mm²
Degree of protection	IP 66
Housing	sheet steel, galvanized and powder coated stainless steel 1.4571 (SS316Ti)
Ambient temperature	- 55 °C ... + 55°C

Accessories/Design options

Version	Design	Description
Cover hinge  09874E00		Cover hinges are optional.
Mounting plate  05218E00		Devices are fitted on the mounting plate. This can be done on several levels. Control and indicating devices are fitted directly in the cover.
Wallrails  09846E00		Single enclosures are fitted with wallrails. Frame systems are used for enclosure combinations.
Window (round)  05186E00	Ø 65 mm Ø 80 mm Ø 105 mm Ø 150 mm	Flameproof windows made of borosilicate glass can be fitted into the enclosure covers (adhesive fitting) or in the side wall (screwed fitting). Windows with a diameter of 105 mm and 150 mm are also available with axle bushings.
Windows (rectangular)  0045E00	155 x 40 mm 155 x x90 mm 300 x 225 mm (15“)	

EEx d Enclosures in Light Metal or Stainless Steel
Flameproof Encapsulation
CUBEx Series 8264

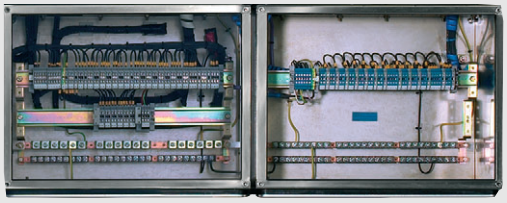
Accessories/Design options

Control and indicating devices type 8612 supporting frame  04423E00	Typ 8612	This componentry consists of two frame parts and a plate for mounting actuators, rotary drives and bezels for indicating lamps (series 8602). The componentry is fixed in the cover by pins. Additional labels can be fitted into a recess in the frame part.
Button attachment  04454E00	Typ 8612/2-101	Actuator with flameproof operating axle. The basic assembly as shown above Type 8612 is used to fit the actuator on the front cover. For selection of the push button actuators or labels please see chapter 9 „Control Equipment for Panel Mounting“.
Attachment for indicating lamp with bezel  09848E00	Typ 8612/1-001	A transparent part (colourless) made of plastic is fitted into the cover and forms the flameproof end of the enclosure. Colour of the indicating lamp is defined by the bezel and clipped on the enclosure via the frame.
Rotary drive for MCB type 8612  09850E00	Typ 8612/3-211	This drive is used for operating the circuit breakers. This handle is used to actuate on a MCB mounted in the flameproof enclosure. The assembly consists on the basic mounting frame for fitting on the cover and a rotary handle which is acting on the MCB through a flameproof axe. This solution leads in a very space saving construction.
Rotary drive size 3  09849E00	Typ 8612/4-301	Rotary drive for the operation of switches with an axle of 6-12 mm. 3-times lockable.
Wire bushings  09870E00  09871E00	Typ 8174/...	Wire bushings are used for the connection of conductors from the flameproof enclosure to the connection chamber. Design: 0,5mm^2 up to 70mm^2
Post-type bushing  09872E00	Typ 8171/...	Post-type bushings are used for the connection of conductors from the flameproof enclosure to the connection chamber. Design: 1,5mm^2 up to 185mm^2
D2D bushing  09873E00	Typ 8193/6	This unit is used for the direct connection of flameproof enclosures. Connection of conductors is done with 8174/1 (M48). A unique feature is that a significant space-saving solution can be provided. It is not necessary to fit connection chambers for through-connection of conductors.

EEx d-Control and Distribution Panels Planning Information

Planning and installation

Planning and installation of explosion-protected control and distribution panels requires considerable experience and careful consideration in all planning and manufacturing processes. With the technical details we receive from the customer we have to develop a technically perfect, economically reasonable solution, taking into account many national and international regulations and standards. Besides Ex-regulations EN 50 014ff and EN 60 079-14 general regulations, especially DIN VDE 0100, EN 60 204-1 and EN 60 439-1, have to be observed when planning and constructing control and distribution facilities.



10240E00

Terminals mounted on a terminal rail, together with blue terminals for intrinsically safe circuits. Separation between EEx e and EEx i terminals is done by an isolating plate.

10246E00

EEx d-Control Panel type 8264
with EEx e-connection chambers deries 8125

Type of protection „Intrinsic Safety“

Equipment with „intrinsically safe circuits“, certified as so-called associated electrical apparatus, can also be fitted into flameproof enclosures and thus be installed in hazardous areas. Customer's free issue material does always have to be accompanied by the respective certificates. Special regulations additionally apply to the mounting of the devices in regard to fitting position, wiring and terminals.

Fitting of devices

Commercial electrical apparatus of all sorts can be fitted into flameproof enclosures. Fitting of devices is subject to a „type test“ which has to be done by a notified body. R. STAHL has so-called general construction certificates; so R. STAHL is authorized to build explosion-protected switchboard and distribution facilities for all common requirements. Each switchboard manufactured at R. STAHL has to undergo a routine check test, thus it is guaranteed that during manufacturing of the installation all regulations referring to explosion protection have been kept and that the installation is suitable for use in hazardous areas.

10241E00

EEx d Enclosures in Light Metal or Stainless Steel
Flameproof Encapsulation
CUBEx Series 8264

EEx d-Control and Distribution Panels Planning Information

03096E00

Explosion-protected Control Panel

Mounting arrangements of windows and mounting levels in enclosures with type of protection „flameproof encapsulation“, taking a control panel consisting of EEx d enclosures and EEx e enclosures 8125 as an example

EEx d-enclosure Flameproof Encapsulation

The flameproof enclosure is used for fitting commercial electrical devices such as contactors, switches, measuring instruments, SPCs (stored program control), etc. Windows can be incorporated into the cover or the side walls to read the indicating devices.

EEx e-enclosure Increased Safety

The enclosure connected to the EEx d enclosure is designed in type of protection „increased safety“. Into this enclosure flameproof control and indicating devices are fitted. The connection chamber is also designed in type of protection „increased safety“.All incoming and outgoing cables are led into this enclosure and cable glands are used. Distribution of wires is done via terminals.

Actuating elements

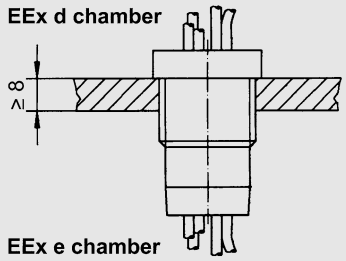
Switches are actuated by rotary drives. Coupling of switches and operating toggles is done via flameproof axle bushings. These axle bushings can be led either through the enclosure cover or through the enclosure wall. Their number depends on the size of the fitted switches and of the operating toggles that are used.
Switch drives are available in different sizes and are used for all common switches. Pushbuttons are suitable for actual control and for resetting of tripped motor protection relays.

09842E00

EEx d-Control and Distribution Panels Planning Information

Wire bushings

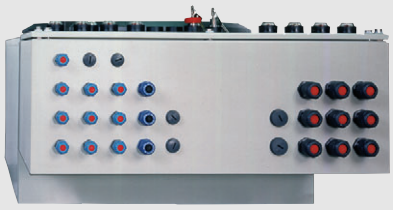
For electric connection of devices in the flameproof enclosures so-called wire bushings are used as a connection element between connection chamber and Ex d-chamber. Wire bushings are screwed into the enclosure wall or inserted into an adapter and secured against self-loosening.



09332E02

schematic drawing
multiple - wire bushing

Possible wire bushings:
- rigid post-type bushings with connection terminals in the EEx d- and EEx e-chamber
- multiple - wire bushings
- considerable space and cost saving
- wired to terminals



09837E00

cable glands 8161 made of moulded plastic, available sizes: M 16 up to M 63

EEx e-enclosure

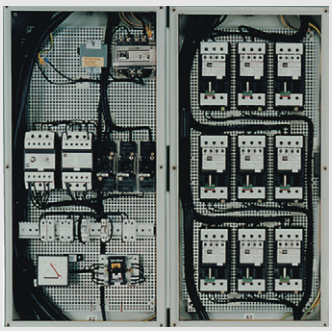
EEx e enclosures are fitted to the bottom side of the flameproof enclosure. Current supply into the flameproof enclosure is done via flameproof wire bushings. Control and indicating devices which are explosion-protected in themselves, designed in type of protection EEx de, can be fitted into the connection chamber

09838E00

Connection parts

- Terminal blocks up to 120 mm²
- Single terminals up to 240 mm²
- Bus bars up to 630 A and 240 mm² connection scope

Clamping points are designed and certified in type of protection „increased safety“

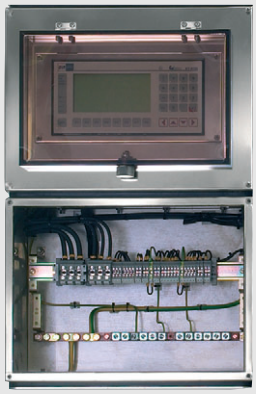


09841E00

Connection chambers 8125 with circuit breakers 8562 and control and indicating devices. The circuit breakers are mounted below hinged windows so that they can be observed and operated without removing the enclosure cover.

09839E00

Bus bars 4- or 5-pole, up to 630 A



10242E00

Terminals of different sizes on standard terminal rails, fitted PE- and N-rails