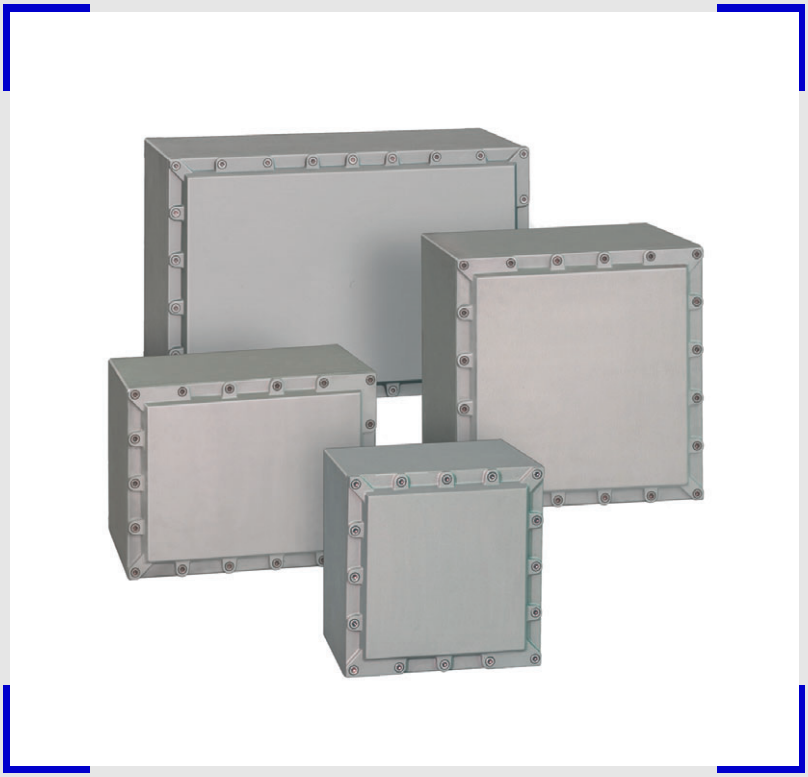


10303E00

- Installation chamber can be fully used
- Up to three mounting levels can be used
- Saving of weight
- Compact
- Easy to combine
- 26 enclosure versions
- 15 window versions

The enclosures are used for installation of control panels and distribution panels. They are suitable for use as control and terminal boxes.
The built-in components are standard electrical equipment and switchgears designed and wired according to customer specifications. For this purpose, control and indicating elements are mounted directly into the cover.
For direct cable entry into the enclosures, flameproof cable entries or adapters can be used for the conduit connection.
For indirect cable entry, enclosures with connection chambers with type of protection "increased safety" of Series 8125 are used, which are equipped with cable entries.
The special direct bushing can be used to establish connection between two flameproof enclosures. This solution gives a very compact version of the control and distribution panels since no connection chamber enclosure is required for the through-connection.

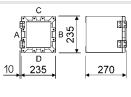
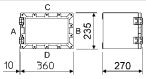
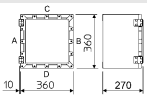
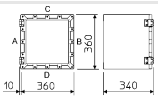
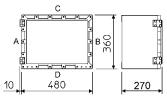
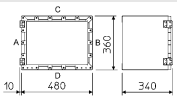
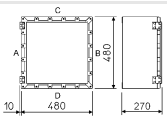
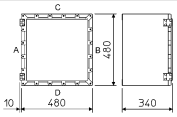
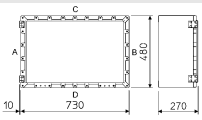
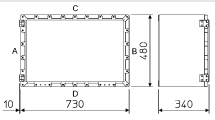
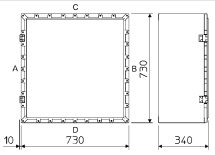
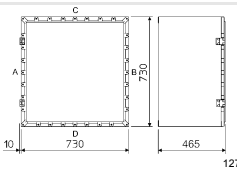
	ATEX / IECEx					
Zone	0	1	2	20	21	22
For use		x	x		x	x

	Class I (NEC 505)			(NEC 506)		
Zone	0	1	2	20	21	22
For use in		x				

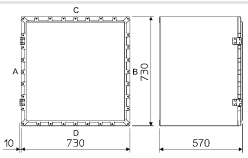
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
For use in	x					

WebCode 8264B

Selection Table - Aluminium

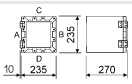
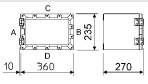
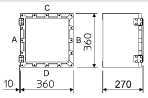
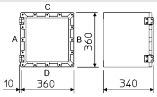
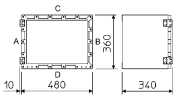
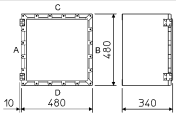
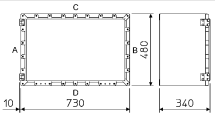
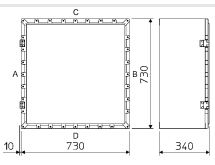
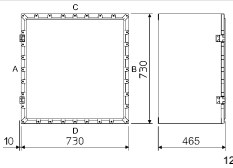
Version	Total dimensions AxBxC [mm]	Internal dimensions axbxc [mm]	max. power loss [W] / temperature class (Tamb = + 40 °C)			Order number	Weight
			T6	T5	T4		kg
 09829E00	235x235x270	157x157x222 *	55	80	170	**8264/-112-3..0**	14.000
 09830E00	360x235x270	282x157x222 *	75	120	235	**8264/-212-3..0**	23.000
 09831E00	360x360x270	282x282x222 *	115	160	320	**8264/-222-3..0**	31.000
 09832E00	360x360x340	282x282x282 *	125	190	370	**8264/-223-3..0**	36.000
 12764E00	480x360x270	402x282x204 *	145	215	400	**8264/-322-3..0**	43.000
 09833E00	480x360x340	402x282x274 *	160	240	465	**8264/-323-3..0**	53.000
 12765E00	480x480x270	402x402x202 *	175	260	500	**8264/-332-3..0**	42.000
 09834E00	480x480x340	402x402x272 *	200	300	565	**8264/-333-3..0**	66.000
 12766E00	730x480x270	652x402x190 *	260	385	710	**8264/-932-3..0**	80.000
 09835E00	730x480x340	652x402x260 *	301	447	810	**8264/-933-3..0**	122.000
 09836E00	730x730x340	640x640x256 *	347	520	933	**8264/-993-3..0**	204.000
 12767E00	730x730x465	640x640x382 *	367	545	992	**8264/-996-3..0**	233.000

Selection Table - Aluminium

Version	Total dimensions AxBxC [mm]	Internal dimensions axbxc [mm]	max. power loss [W] / temperature class (Tamb = + 40 °C) T6	T5	T4	Order number	Weight kg
 12768E00	730x730x570	640x640x487 *	431	640	1159	**8264/-997-3..0**	256.000

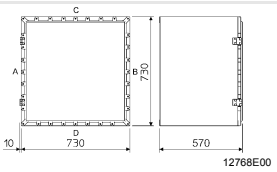
* Regardless the thickness of the mounting plate

Selection Table - Stainless Steel

Version	Total dimensions AxBxC [mm]	Internal dimensions axbxc [mm]	max. power loss [W] / temperature class (Tamb = + 40 °C) T6	T5	T4	Order number	Weight kg
 09829E00	235x235x270	155x155x207	55	80	170	**8264/-112-2..0**	41.000
 09830E00	360x235x270	280x155x207	75	120	235	**8264/-212-2..0**	66.000
 09831E00	360x360x270	280x280x204	115	160	320	**8264/-222-2..0**	82.000
 09832E00	360x360x340	280x280x274	125	190	370	**8264/-223-2..0**	88.000
 09833E00	480x360x340	400x280x274	160	240	465	**8264/-323-2..0**	141.000
 09834E00	480x480x340	400x400x269	200	300	565	**8264/-333-2..0**	183.000
 09835E00	730x480x340	650x400x273	301	447	810	**8264/-933-2..0**	252.000
 09836E00	730x730x340	650x650x268	347	520	933	**8264/-993-2..0**	365.000
 12767E00	730x730x465	650x650x344	367	545	992	**8264/-996-2..0**	427.000

E9

Selection Table - Stainless Steel

Version	Total dimensions AxBxC [mm]	Internal dimensions axbxc [mm]	max. power loss [W] / temperature class (Tamb = + 40 °C)			Order number	Weight
			T6	T5	T4		kg
	730x730x570	650x650x450	431	640	1159	**8264/-997-2..0**	478.000

* Regardless the thickness of the mounting plate

Explosion Protection - Empty Enclosure 8264/-

Marking	
IECEx	
Gas explosion protection	Ex d IIB bzw. Ex d IIB + H2
Dust explosion protection	Ex tD A21 IP6X
Europe (ATEX)	
Explosion protection	Ex d ... IIB + H2 T6...T4 Ex d ... IIB T6...T4 Ex td A21 IP66 T80°C ... T130°C
Certificates	
IECEx	
IECEx	IECEx KEM 07.0050U
Europe (ATEX)	KEMA 01 ATEX 2145 U
Other certificates	Belarus (Gospromnadzor), Brazil (UL do Brasil), Canada (UL), China (CQST), India (PESO), Kazakhstan (JSC), Korea (KGS), Russia (CTB), USA (UL)

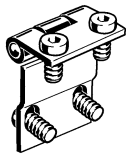
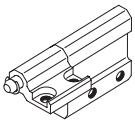
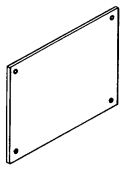
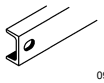
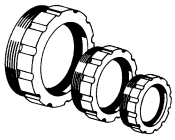
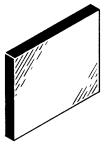
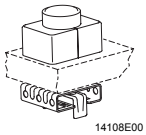
Explosion protection - Control Panel 8264/5

Marking	
IECEx	
Gas explosion protection	Ex d IIB T6 ... T4 bzw. Ex d IIB + H2 T6 ... T4
Dust explosion protection	Ex tD A21 IP6X T80°C ... T130°C
Europe (ATEX)	
Explosion protection	Ⓔx II 2 G Ex d ... IIB + H2 T6...T4 Ⓔx II 2 G Ex d ... IIB T6...T4 Ex td A21 IP66 T80°C ... T130°C
Certificates	
IECEx	
IECEx	IECEx KEM 07.0051X
Europe (ATEX)	KEMA 01 ATEX 2145 X
Other certificates	Belarus (Gospromnadzor), Brazil (UL do Brasil), Canada (UL), China (CQST), India (PESO), Kazakhstan (JSC), Korea (KGS), Russia (CTB), USA (UL)

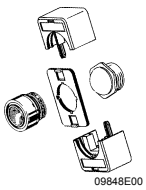
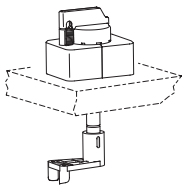
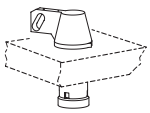
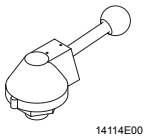
Technical Data

Electrical data	
Rated operational voltage U_e	max. 11 kV AC/DC
Rated operational current I_e	max. 1.250 A
Ambient conditions	
Ambient temperature	- 55 ... + 60 °C IIB - 20 ... + 60 °C IIB + H_2 - 25 ... + 55 °C cUL_{US}
Mechanical data	
Degree of protection	IP66 (EN 60529) NEMA 4X
Enclosure	Standard: Aluminium (saltwater-proof according to EN 13195-1) Special: Stainless steel
Terminals	max. 300 mm^2

Accessories/Design Options

Version		Description
Cover hinge  09874E00		Hinges for lightweight covers
Cover hinge  14112E00		Hinges for heavy covers
Mounting plate  05218E00		Devices are mounted on the mounting plate. This can be done on several levels. Control devices are mounted directly in the cover.
Wall rail  09846E00		Single enclosures are equipped with wall rails. Frame systems are used for enclosure combinations.
Windows (round)  05186E00	Ø 65 mm Ø 80 mm Ø 105 mm Ø 150 mm	Flameproof windows made of borosilicate glass can be installed in the covers (adhesive bond) or the side wall (screw connection 80 mm max.) of the enclosure. Windows with diameters 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“)	
Control Devices  14108E00	Series 8612	This assembly consists of two frame parts and a plate for mounting actuators (series 8602). The assembly is fixed in the cover by pins. Additional identification plates can be mounted to a recess in the frame part. Actuator with flameproof operating axle.
Pushbutton actuator  04454E00	Series 8602	For selection of the actuators and identification plates, see chapter E4 "Built-in Components for Control Devices for Panel Mounting".

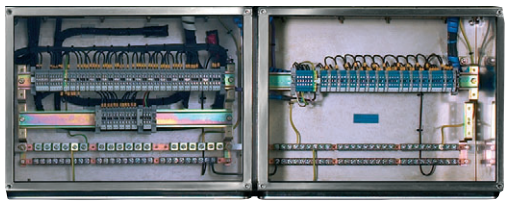
Accessories/Design Options

Indicating lamp bezel  09848E00	Type 8612/1-001	A transparent part (colourless) made of plastic is mounted in the cover and forms the flameproof end of the enclosure. The colour of the indicating lamp is defined by the bezel and snapped on the enclosure via the frame.
Indicating lamp bezel  14113E00	Series 8605	The light signal is visible even in direct sunlight. Different colours due to different snap-on bezels.
Rotary drive for MCB type 8612  09850E00	Type 8612/3-211	This drive is used for operating the miniature circuit breakers. The MCBs are mounted in the enclosure. They are actuated by the rotary actuator (series 8602). This solution results in a particularly space-saving construction.
Rotary drive size 3  09849E00	Type 8612/4-301	Rotary drive for operating switches with an axle of 6-12 mm. This drive is equipped with a triple locking device.
Rotary drive  14115E00	Series 8605	Rotary drive with low torque for switches of up to 250 A. Optionally with locking device.
Rotary drive  14114E00	Series 8605	Rotary drive with high torque for switches greater than 250 A. Optionally with locking device.
Wire bushings  09870E00  09871E00	Type 8174/...	Wire bushings are used for the connection of conductors from the flameproof enclosure to the connection chamber. Versions range from 0.5 mm^2 to 70 mm^2.
Stud-type bushing  09872E00	Type 8171/...	Stud-type bushings are used for the connection of conductors from the flameproof enclosure to the connection chamber. Versions range from 1.5 mm^2 to 185 mm^2.
D-D bushing  09873E00	Typ 8193/6	This assembly is used for the direct connection of flameproof enclosures. The connection of conductors is done with 8174/1 (M48). The special feature of this solution is that it produces a particularly space-saving construction. No connection chambers between the flameproof enclosures are required for through-connection of conductors.

Ex 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 IEC/EN 60079-14 general regulations, especially DIN VDE 0100, EN 60204-1 and EN 60439-1, 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 Ex e and Ex i terminals is done by an isolating plate.

10246E00

Ex d Control Panel type 8264
with Ex 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

Ex 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 Ex d enclosures and Ex e enclosures 8125 as an example

Ex 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.

Ex e enclosure Increased Safety

The enclosure connected to the Ex 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.

03133E00

- Actuators in 9 different forms
  – pushbutton
  – mushroom pushbutton
  – selector switch
  – rotary actuator
  – key-operator switch
  – key-operator button
  – mushroom stay-put button with key lock
  – mushroom stay-put button
  – double pushbutton actuator
- Control switch and key switch: the functions „latching/spring return“ and/or „key not removabel“ can be coded at the already installed actuators on site
- Maintenance-free
- Available in: red, yellow, green, blue, white

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.

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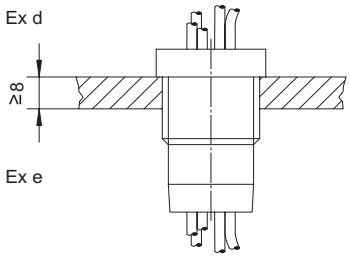
Ex d Control and Distribution Panels Planning Information

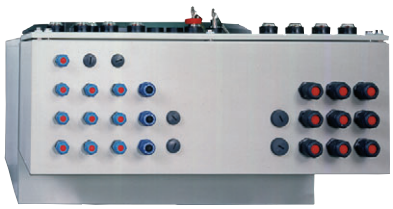
Wire bushings

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.



schematic drawing
multiple - wire bushing

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



cable glands 8161 made of moulded plastic, available sizes: M16 up to M63

Ex e enclosure

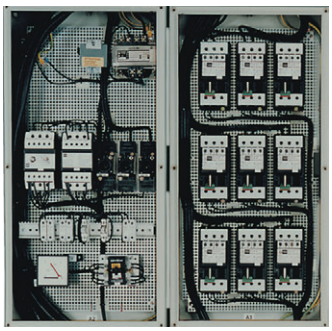
Ex e enclosures are fitted to the bottom side of the flameproof enclosure. Current supply into the flameproof enclosure is done via flameproof wire bushings. Control and indicating devices which are explosion-protected in themselves, designed in type of protection Ex de, can be fitted into the connection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

Ex d Control and Distribution Panels Planning Information

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“.



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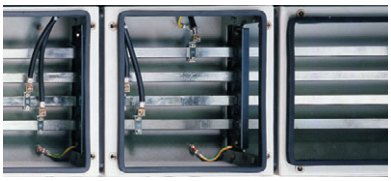
Connection chambers 8125 with circuit breakers 8562 and control and indicating devices. The circuit breakers are mounted below hinged windows so that they can be observed and operated without removing the enclosure cover.



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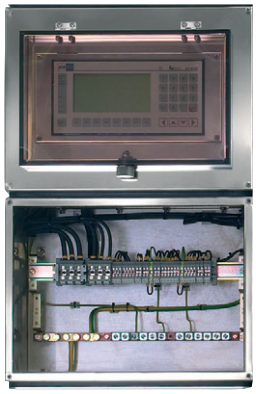
Bus bars 4- or 5-pole, up to 630 A



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