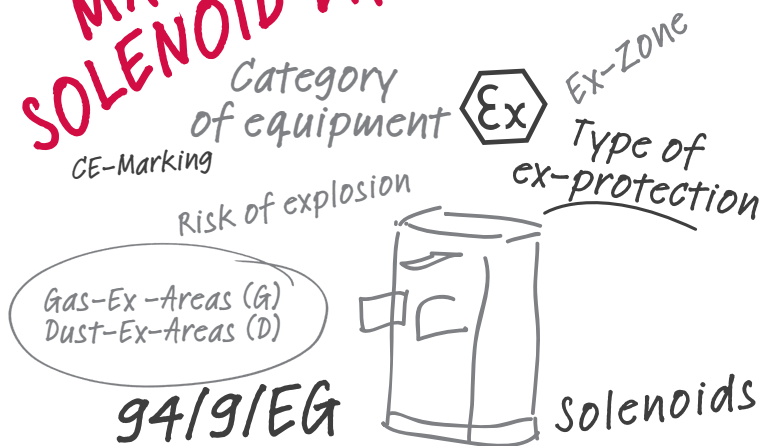


INSTRUCTIONS FOR ATEX

YOU CAN SEE
OUR THINKING

ENGINEERING ADVANTAGE

MARKING OF SOLENOID VALVES



IN POTENTIALLY
EXPLOSIVE ATMOSPHERES



BUSCHJOST

IT HAS BEEN A LONG ROAD FROM THE WORKSHOP FOR ELECTRIC MOTORS ESTABLISHED IN 1933 BY FRIEDRICH BUSCHJOST TO THE GLOBAL PLAYER OF TODAY. WE HAVE BEEN PRODUCING

SOLENOID VALVES SINCE 1953. AS A SUBSIDIARY OF IMI WITH ITS GLOBAL OPERATIONS, WE ARE A MARKET LEADER IN PROCESS VALVES.



WE LINK EMPLOYEES ACROSS BORDERS, WE COMBINE PRODUCTS AND KNOW-HOW TO OFFER SOLUTIONS THAT OPTIMIZE THE PRODUCTS AND BUSINESS RESULTS OF OUR CUSTOMERS. WE CALL IT THE „ENGINEERING ADVANTAGE“.

Proximity makes our company fast and flexible. At Buschjost, everything is under one roof: product development with modern laboratories, production, toolmaking and prototyping, fully automatic inspection facilities - in short, everything you need to develop in pioneering directions. 330 employees ensure that all of the processes are perfectly coordinated. Buschjost is known on the market as a leader in technology and innovation and also for setting standards in terms of quality. We see each and every customer as a partner and we operate a very consistent staffing policy.

→ HIGH PERFORMANCE PRODUCTS

Our large, world-class portfolio of fluid and motion control products gives them reliable and powerful technology.

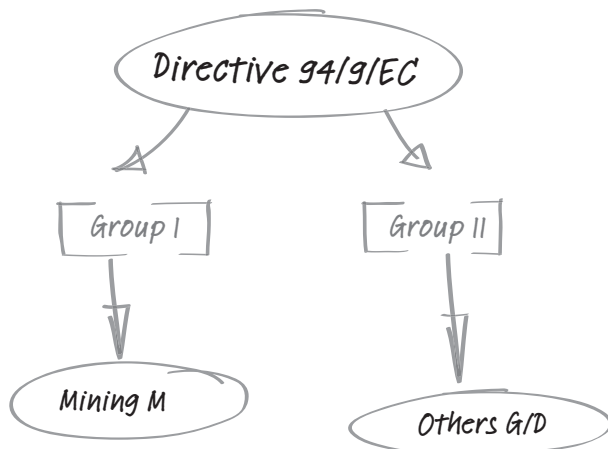
→ EXCEPTIONAL LOCAL SERVICE

Our sales and service teams have a local presence in 75 countries, giving customers access to our technology and expertise, wherever they are.

→ INNOVATION & TECHNICAL EXCELLENCE

Our expertise and specialist teams give them unique solutions which solve their engineering challenges and improve performance.

MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES



MARKING OF EQUIPMENT FOR GAS-EX-AREAS

Zone	Category of equipment	Marking
0	1	II 1 G
1	2	II 2 G
2	3	II 3 G

MARKING OF EQUIPMENT FOR DUST-EX-AREAS

Zone	Category of equipment	Marking
20	1	II 1 D
21	2	II 2 D
22	3	II 3 D

Since this date, only products intended for use in Ex-zones may be brought into circulation meeting the requirements of directive 94/9/EC. The directive stipulates a subdivision of group II of devices into device categories attributing the safety level of the devices to the respective Ex-zones. In the gas Ex-zone, marked by identification letter G, it concerns zones 0, 1 and 2 and in the dust Ex-zone, reference letter D, zones 20, 21 and 22. Zones 0 and 20 designate the greatest explosion risk and zones 2 and 22 designate a very minor risk.

The illustration depicts the required identification of the devices according to the above-mentioned directive.

The Directive 94/9/EC (ATEX) refers, apart from electrical apparatuses, also to non-electrical apparatuses. For all equipment for use as intended in hazardous areas category 2 and 3 supplied by us, we issue EC-Declarations of Conformity for the electrical as well as non-electrical parts. The customer/user of the product specifies the zone in which the machine is being used and /or which can arise inside the machine.

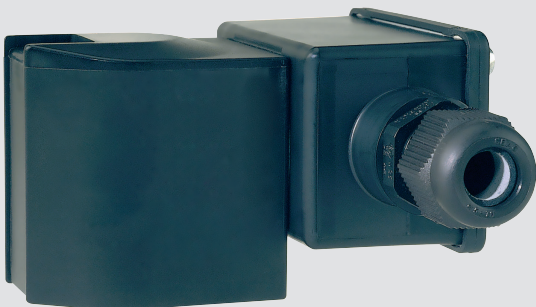
The solenoids of the series

4270...4271, 4280...4281, 4670, 4672...4673, 4680, 4682...4683, 8036...8045, 8136...8145, 8186...8195, 8336...8345, 8436...8445, 8900...8909, 8920...8929, 9136...9145, 9186...9195, 9336...9345, 9350...9360, 9540...9564, 9841...9845

in the ignition protection category Ex (e)mb II T4, respectively T3, and in the ignition protection category Ex d(e) T4, respectively T5, are devices intended for use in explosion hazardous zones of the group II 2 G resp. II 2 D according to the directive 94/9/EC.

The solenoids of device category 2 are deployable in zones in which explosive gas, fume-air-mixtures in zones 1 and 2 or dust/air mixtures in zones 21 and 22 are present. Depending on the design, the protection category amounts to IP54 up to IP67.

The solenoids are identified by the EC-type examination certificate number.



KEMA 98 ATEX 4452 X	{4270...4271}, {4280...4281}
PTB 02 ATEX 2085 X	{4670}, {4672...4673}, {4680}, {4682...4683}
TÜV 06 ATEX 553076 X	{8036...8045}, {8136...8145}, {8341...8345}, {8436...8445}, {9336...9345}, {9350...9360}
TÜV 07 ATEX 553412 X	{9540...9564}
TÜV 06 ATEX 553413 X	{8186...8195}
TÜV 06 ATEX 553414 X	{9136...9145}
TÜV 06 ATEX 553415 X	{9186...9195}
PTB 10 ATEX 1021 X	{8900...8909}
PTB 10 ATEX 1022 X	{8920...8929}
PTB 10 ATEX 2003 X	{9841...9845}

The marking „X“ indicates special conditions:

The exact description of the extraordinary conditions can be read in the sample test certificate or also in the operating manual. Valve-operating magnets are electrical components. Without the related valve they are not operational. Evidently damaged magnets may not be installed and must be replaced by original components

MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES

SOLENOID	TYPE OF EX-PROTECTION	MARKING	TÜV RESP. PTB	VOLTAGE	
				d.c.	a.c.
4270/4271	 emb tb	II 2G Ex emb II T4/T5 II 2D Ex tb III C T130°C Db IP66	Kema 98 ATEX 4452 X	24 ... 125 V	24 ... 230 V
4280/4281	 emb tb	II 2G Ex emb II T4/T5 II 2D Ex tb III C T130°C Db IP66	Kema 98 ATEX 4452 X	24 ... 125 V	24 ... 230 V
4670	 dmb tD	II 2G Ex d mb IIC T4/T5 Gb II 2D Ex tb IIIC T130°C/T95°C Db	PTB 02 ATEX 2085 X	24 ... 125 V	–
4672/4673	 dmb tD	II 2G Ex d mb IIC T4/T5 Gb II 2D Ex tb IIIC T130°C/T95°C Db	PTB 02 ATEX 2085 X	24 ... 125 V	24 ... 230 V
4680	 dmb tD	II 2G Ex d mb IIC T4/T5 Gb II 2D Ex tb IIIC T130°C/T95°C Db	PTB 02 ATEX 2085 X	24 ... 125 V	–
4682/4683	 dmb tD	II 2G Ex d mb IIC T4/T5 Gb II 2D Ex tb IIIC T130°C/T95°C Db	PTB 02 ATEX 2085 X	24 ... 125 V	24 ... 230 V
8036	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8041	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8042	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8043	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8136	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8186	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553413X	12 ... 440 V	24 ... 400 V
8191	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553413X	12 ... 440 V	24 ... 400 V
8336	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V

SOLENOID	OUTPUT		CONNECTION	BODY	AMBIENT TEMPERATURE °C
	d.c.	a.c.			
4270/4271	8 W	8 W/9 VA	M20 x 1,5 screw joint	Polymer	-40 ... +55/65
4280/4281	11 W	11 W/13 VA	M20 x 1,5 screw joint	Polymer	-40 ... +40/50
4670	8 W	–	1/2 ... 14 NPT screw joint	Aluminium	-40 ... +40/70
4672/4673	8 W	8 W/9 VA	M20 x 1,5 screw joint	Aluminium	-40 ... +40/70
4680	11 W	–	1/2 ... 14 NPT screw joint	Aluminium	-40 ... +40/50
4682/4683	11 W	11 W/13 VA	M20 x 1,5 screw joint	Aluminium	-40 ... +40/50
8036	9 W	9 W/10 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8041	12 W	12 W/13 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8042	12 W	12 W/13 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8043	12 W	12 W/13 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8136	9 W	9 W/10 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8186	9 W	9 W/10 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8191	12 W	12 W/13 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40
8336	16 W	16 W/18 VA	M16 x 1,5 screw joint	Polymer	-20 ... +40

MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES

SOLENOID	TYPE OF EX-PROTECTION	MARKING	TÜV RESP. PTB	VOLTAGE	
				d.c.	a.c.
8341	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8436	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8441	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
8900	 de tD	II 2G Ex de II C T4/T5 II 2D Ex tD A21 IP65 T130°C/T95°C	PTB 10 ATEX 1021 X	12 ... 440 V	24 ... 400 V
8920	 d tD	II 2G Ex d IIC T4/T5 II 2D Ex tD A21 IP65 T130°C/T95°C	PTB 10 ATEX 1022 X	12 ... 440 V	24 ... 400 V
9136	 m	II 2G Ex m II T4 II 2D T130°C	TÜV 06 ATEX 553414X	12 ... 440 V	24 ... 400 V
9186	 em	II 2G Ex em II T4 II 2D T110°C	TÜV 06 ATEX 553415X	12 ... 440 V	24 ... 400 V
9191	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553415X	12 ... 440 V	24 ... 400 V
9336	 em	II 2G Ex em II T4 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
9356	 em	II 2G Ex em II T3 II 2D Ex T140°C	TÜV 06 ATEX 553076X	12 ... 440 V	24 ... 400 V
9540	 emb tD	II 2G Ex emb II T3/T4 II 2D Ex tD A 21 IP65 T140°C	TÜV 07 ATEX 553412X	12 ... 440 V	24 ... 400 V
9560	 emb tD	II 2G Ex emb II T3/T4 II 2D Ex tD A 21 IP65 T140°C	TÜV 07 ATEX 553412X	12 ... 440 V	24 ... 400 V
9841	 mb tb	II 2G Ex mb II T4 Gb II 2D Ex tD IIIC T130°C	PTB 10 ATEX 2003 X	24 ... 220 V	24 ... 240 V
9844	 mb tb	II 2G Ex mb II T4 Gb II 2D Ex tD IIIC T130°C	PTB 10 ATEX 2003 X	24 ... 220 V	24 ... 240 V
9845	 mb tb	II 2G Ex mb II T4 Gb II 2D Ex tD IIIC T130°C	PTB 10 ATEX 2003 X	24 ... 220 V	24 ... 240 V

SOLENOID	OUTPUT		CONNECTION	BODY	AMBIENT TEMPERATURE °C
	d.c.	a.c.			
8341	22 W	22 W/25 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
8436	32 W	32 W/36 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
8441	40 W	40 W/45 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
8900	29 W	29 W/33 VA	M20 x 1,5 screw joint	Steel	−40 ... +40/60
8920	29 W	29 W/33 VA	M20 x 1,5 screw joint	Steel	−40 ... +40/75
9136	8 W	8 W/9 VA	with 3 m cable	Polymer	−20 ... +40
9186	14 W	14 W/16 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
9191	18 W	18 W/20 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
9336	14 W	14 W/16 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
9356	18 W	18 W/20 VA	M16 x 1,5 screw joint	Polymer	−20 ... +40
9540	65 W	65 W/72 VA	M20 x 1,5 screw joint	Steel	−40 ... +40
9560	47 W	47 W/52 VA	M20 x 1,5 screw joint	Steel	−40 ... +60/70
9841	10.1 W	9.2 VA	with 3 m cable	Polymer	−20 ... +50
9844	10.1 W	9.2 VA	with 3 m cable	Polymer	−20 ... +50
9845	10.1 W	9.2 VA	with 3 m cable	Polymer	−20 ... +50

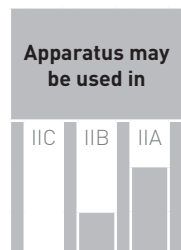
MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES

CONDITIONS IN HAZARDOUS AREAS

FLAMMABLE SUBS-TANCES	TEMPORARY BEHAVIOUR OF FLAMMABLE SUBSTANCES IN HAZARDOUS PLACES	SUBDIVISION OF HA-ZARDOUS PLACES	REQUIRED MARKING FOR INSTALLATION	
			EQUIPMENT GROUP	CATEGORY GROUP
gases, vapours	is present continuously or for long periods or frequently	zone 0	II	1G
	is likely to occur in normal operation occasionally	zone 1	II	2G or 1G
	is not likely to occur in normal operation but, if it does occur, will persist for a short period only	zone 2	II	3G or 2G or 1G
dusts	is present continuously or for long periods or frequently	zone 20	II	1D
	is likely to occur in normal operation occasionally	zone 21	II	2D or 1D
	is not likely to occur in normal operation but, if it does occur, will persist for a short period only	zone 22	II	3D or 2D or 1D
methane	–	mines	I	M1
coal dust	–	mines	I	M2 or M1

CE 0044 Ex II 2G Ex d IIB T4 NB 06 ATEX 1234 U

APPLICATION	PRINCIPLE OF PROTECTION	TYPE OF PROTECTION	MARKING	MAY BE USED IN ZONE	CENELEC	IEC	CENELEC (NEW)
all applications	–	general requirements	–	–	EN 50014	60079-0	EN 60079-0
control stations, motors, fuses, switchgear, power electronics	a propagation of an explosion inside to the outside is excluded	flameproof enclosure	Ex d	1 or 2	EN 50018	60079-1	EN 60079-1
installation materials, motors, luminaries	avoidance of arcs, sparks and excessive temperature	increased safety	Ex e	1 or 2	EN 50019	60079-7	EN 60079-7
measurement and control, automation technology, sensors, actuators	limitation of energy as well as arcs and temperature	intrinsic safety	Ex ia	0, 1 or 2	EN 50020 equipment	60079-11	EN 60079-11
			Ex ib	1 or 2	EN 50039 systems	60079-25	EN 60079-25
switch- and control cupboards, analyse-apparatus, computers	ex-atmosphere keep at a distance from the ignition source	pressurisation	Ex p	1 or 2	EN 50016 systems	60079-2	EN 60079-2
coils of motors or relays, solenoid valves	ex-atmosphere keep at a distance from the ignition	encapsulation	Ex ma	1 or 2	EN 50028	60079-18	EN 60079-18
			Ex mb				
transformers, relays, control stations, magnetic contactors	ex-atmosphere keep at a distance from the ignition source	oil immersion	Ex o	1 or 2	EN 50015	60079-6	EN 60079-6
capacitors, transformers	an propagation of an ignition inside to the outside is excluded	powder filling	Ex q	1 or 2	EN 50017	60079-5	EN 60079-5
only for zone 2	avoidance of avcs	'non sparking'	Ex n	2	EN 50021	60079-15	EN 60079-15



highest demand!

SUBDIVISION OF GASES AND VAPOURS						
EXPLOSION SUB-GROUP	GASES AND VAPOURS					
IIA	ammonia, methane, ethane, propane	ethyl alcohol, cyclohexane, n-Butane, n-Hexane	galsoline, n-hexane	acetaldehyde		
IIB	town gas, acrylnitril	ethylene, oxide	ethylene, glycol, hydrogen, sulphide	ethyl ether		
IIC	hydrogen	acetylene				sulphide of carbon
TEMPERATURE CLASSES						
	T1 > 450°C	T2 > 300 ... < 450°C	T3 > 200 ... < 300°C	T4 > 135 ... < 200°C	T5 > 100 ... < 135°C	T6 > 85 ... < 100°C
	T1	T2	T3	T4	T5	T6

Apparatus may be used in

CE 0044 Ex II 2G Ex d IIB T4 NB 06 ATEX 1234 U

ACCREDITED TEST CENTRE		
CODE	COUNTRY	NOTIFIED BODIES
0044	Germany	TÜV Nord Cert.
0102	Germany	PTB
0158	Germany	DEKRA EXAM
0297	Germany	DQS
0588	Germany	FSA
0589	Germany	BAM
0637	Germany	IBExU
0080	France	INERIS
0081	France	LCIE
0344	Netherlands	KEMA
0402	Sweden	SP
0163	Spain	LOM
1180	UK	EECS
0359	UK	INTERTEK TESTING

RESTRICTION FOR USING APPARATUS	
REQUIREMENTS	MARKING
without restriction	-
special condition may be noted	X
Ex-component, which is not intended to be used alone and requires additional certification. CE-Conformity is declared by the manufacturer if the part is fitted into a complete	U

MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES

CATEGORY 2 ZONE 1,2 AND 21,22



			SOLENOID	4270	4271	4280	4281	4670	4672	4673	4680	4682	4683
			Type of ex-protection										
			Protection class*	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
			Marking	see table Page 05-10/05-12									
			Body	Polymer	Polymer	Polymer	Polymer	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
EXE-CUTION	SERIES	DESCRIPTION	CONNECTION	M20x1,5 screw joint	M20x1,5 screw joint	M20x1,5 screw joint	M20x1,5 screw joint	1/2 ... 14 NPT screw joint	M20x1,5 screw joint	M20x1,5 screw joint	1/2 ... 14 NPT screw joint	M20x1,5 screw joint	M20x1,5 screw joint
DIAPHRAGM DESIGN													
2/2-way	82400	indirectly actuated	G1/4 ... 2	•	•	•	•	•	•	•	•	•	•
2/2-way	82730	indirectly actuated – stainless steel	G1/4 ... 2	•	•	•	•	•	•	•	•	•	•
2/2-way	82540	with forced lifting	G1/4 ... 2										
2/2-way	82510	directly actuated	G1/8 ... 3/8	•	•	•	•	•	•	•	•	•	•
2/2-way	82610	indirectly actuated	G1/8 ... 3/8	•	•	•	•	•	•	•	•	•	•
2/2-way	83030	indirectly actuated electromagnetic operated	DN 15 ... 50	•	•	•	•	•	•	•	•	•	•
2/2-way	83580	indirectly actuated electromagnetic operated	DN 65 ... 150	•	•	•	•	•	•	•	•	•	•
PISTON DESIGN													
2/2-way	85300	indirectly actuated	G1/4 ... 2	•	•	•	•	•	•	•	•	•	•
2/2-way	85360	indirectly actuated	G1/4 ... 1	•	•	•	•	•	•	•	•	•	•
PILOT VALVE													
3/2-way	84680	directly actuated	G1/4	•	•	•	•	•	•	•	•	•	•
DUST CLEANING VALVES													
2/2-way	82960	solenoid pilot operated	G3/4 ... 3	•	•	•	•	•	•	•	•	•	•

* PROTECTION CLASS EN 60529

CATEGORY 2 ZONE 1,2 AND 21,22



			SOLENOID	8036	8041	8042	8136	8186	8191	8336	8341	8436
			Type of ex-protection									
			Protection class*	IP65	IP65	IP65	IP65	IP64	IP64	IP65	IP65	IP65
			Marking	see table Page 05-10/05-12								
			Body	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer
EXE-CUTION	SERIES	DESCRIPTION	CONNECTION	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint
DIAPHRAM DESIGN												
2/2-way	82400	indirectly actuated	G1/4 ... 2									
2/2-way	82730	indirectly actuated – stainless steel	G1/4 ... 2									
2/2-way	82540	with forced lifting	G1/4 ... 2							up to G1	up to G1	G1 1/4 ... 2
2/2-way	82530	with forced lifting	G1/4 ... 1/2		•	•						
2/2-way	82560	with forced lifting – stainless steel	G1/4 ... 1/2		•	•						
PISTON DESIGN												
2/2-way	85300/ 85560	indirectly actuated electromagnetic operated	G1/4 ... 2/ DN 15 ... 50									
2/2-way	85700	with forced lifting	G1/4 ... 2									
2/2-way	85740	with forced lifting – stainless steel	G1/4 ... 2									
2/2-way	85540	with forced lifting – stainless steel	DN 15 ... 50									
2/2-way	85500	with forced lifting	DN 15 ... 50									
2/2-way	85580	with forced lifting – stainless steel – with inspection certificate DIN EN 10204 - 3.1	DN 15 ... 50									
SEALED CORE TUBE WITH PTFE-BELLOWS												
2/2-way	82080	directly actuated with sealed core tube	G1/4 ... 3/8			•						
PILOT VALVE												
3/2-way	84660	directly actuated	G1/4									
3/2-way	84680	directly actuated	G1/4									
DUST CLEANING VALVES												
2/2-way	82960	solenoid pilot operated	G3/4 ... 3					•	•			

* PROTECTION CLASS EN 60529

MARKING OF SOLENOID VALVES IN POTENTIALLY ATMOSPHERES

CATEGORY 2 ZONE 1,2 AND 21,22



			SOLENOID	8441	8900	8920	9136	9186	9191	9336	9356	9540
			Type of ex-protection									
			Protection class*	IP65	IP65	IP65	IP67	IP65	IP65	IP65	IP65	IP65
			Marking	see table Page 05-10/05-12								
			Body	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Steel
EXE-CUTION	SERIES	DESCRIPTION	CONNECTION	M16x1,5 screw joint	M20x1,5 screw joint	M20x1,5 screw joint	with 3 m cable	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M16x1,5 screw joint	M20x1,5 screw joint
DIAPHRAGM DESIGN												
2/2-way	82400	indirectly actuated	G1/4 ... 2				•	•	•			
2/2-way	82730	indirectly actuated – stainless steel	G1/4 ... 2				•	•	•			
2/2-way	82540	with forced lifting	G1/4 ... 2	G1 1/4 ... 2					up to G1		up to G1	
2/2-way	82530	with forced lifting	G1/4 ... 1/2									
2/2-way	82560	with forced lifting – stainless steel	G1/4 ... 1/2									
PISTON DESIGN												
2/2-way	85300/ 85560	indirectly actuated	G1/4 ... 2/ DN 15 ... 50					•	•		•	
2/2-way	85700	with forced lifting	G1/4 ... 2	•	•	•						
2/2-way	85740	with forced lifting – stainless steel	G1/4 ... 2	•	•	•						
2/2-way	85540	with forced lifting – stainless steel	DN 15 ... 50	•	•	•						
2/2-way	85500	with forced lifting	DN 15 ... 50	•	•	•						
2/2-way	85580	with forced lifting – stainless steel – with inspection certificate DIN EN 10204 - 3.1	DN 15 ... 50	•	•	•						
SEALED CORE TUBE WITH PTFE-BELLOWS												
2/2-way	82080	directly actuated with sealed core tube	G1/4 ... 3/8									
PILOT VALVE												
3/2-way	84660	directly actuated	G1/4				•					
3/2-way	84680	directly actuated	G1/4					•	•			
DUST CLEANING VALVES												
2/2-way	82960	solenoid pilot operated	G3/4 ... 3	•	•			•	•			

* PROTECTION EN 60529

CATEGORY 3 ZONE 2 AND 22



			SOLENOID	8026	8326	8426	9116	9176	8176	9326	9526	9426
			Type of ex-protection									
			Protection class*	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
			Marking	II 2G Ex nA II T4 II 2D Ex tD A22 IP65 T135°C								
			Body	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Steel	Polymer
EXE-CUTION	SERIES	DESCRIPTION	CONNECTION	Socket	Socket	Socket	Socket	Socket	Socket	Socket	Socket	Socket
DIAPHRAGM DESIGN												
2/2-way	82400	indirectly actuated	G1/4 ... 2				•	•				
2/2-way	82730	indirectly actuated - stainless steel	G1/4 ... 2				•	•				
2/2-way	82540	with forced lifting – only D.c.	G1/4 ... 2		up to G1	G1 1/4 ... 2		up to G1		up to G1		G1 1/4 ... 2
2/2-way	82530	with forced lifting	G1/4 ... 1/2	•								
2/2-way	82560	with forced lifting – stainless steel	G1/4 ... 1/2	•								
PISTON DESIGN												
2/2-way	85360/ 85560	indirectly actuated electromagnetic operated	G1/4 ... 2					•		•		
2/2-way	85700	with forced lifting	G1/4 ... 2			•						•
2/2-way	85740	with forced lifting – stainless steel	G1/4 ... 2			•						•
2/2-way	85540	with forced lifting – stainless steel	DN 15 ... 50			•						•
2/2-way	85500	with forced lifting	DN 15 ... 50			•						•
2/2-way	85580	with forced lifting – stainless steel – with inspection DIN EN 10204 - 3.1	DN 15 ... 50			•						
SEALED CORE TUBE WITH PTFE BELLOWS												
2/2-way	82080	directly actuated with sealed core tube	G1/4 ... 3/8									
PILOT VALVE												
3/2-way	84660	directly actuated	G1/4				•					
3/2-way	84680	directly actuated	G1/4					•				
DUST CLEANING VALVES												
2/2-way	82960	solenoid pilot operated	G3/4 ... 3						•			

SEPARATE ATEX-SOCKET KIT ONLY WITH STANDARD SOLENOID PART NO. 1262560 (VALID FOR ALL SOLENOIDS CATEGORY 3)
* PROTECTION EN 60529

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