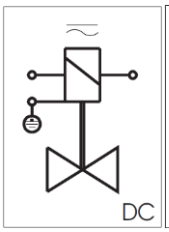
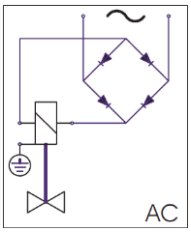
Technical Data Sheet
Type Solenoid coils

DC and AC solenoid coils
For all GSR solenoid valves

Matched to the appropriate solenoid system consisting of tube and plunger
The electromagnetic coils convert the electrical energy into a mechanical stroke

Coils

TECHNICAL SPECIFICATIONS

Ambient temperature	-55 °C to +70 °C Deatils see on pages 2 - 3
Solenoid housing material	Plastic Powder-coated steel
Supply voltage	24V AC, 110V AC, 230V AC 50/60 Hz 12V DC, 24V DC Other supply voltages on request
Voltage tolerance	-10% / +10% Deatils see on pages 2 - 3
Power consumption	Deatils see on pages 2 - 3
Insulation class	H, F (acc. to DINVDE0580)
Protection class	IP65 acc. to DIN EN 60529 (IEC 529/VDE 047 T1) only in combination with the valve IP68 (external encapsulation) on request
Duty factor	100% ED acc. to DIN VDE 0580
Connection type	Device plug acc. to EN 175301-803 Form A /ISO 4400 Terminal box Cable end
Connection scheme	For AC/DC coils  For DC-coils w/ integr. rectifier 

All data are explicit for the coil. Different values may result in combination with a valve.

FEATURES

- For actuation of all GSR solenoid valves
- Extended temperature range
- Explosion proof acc. 2014/34 / EU (ATEX)
- UL approval
- Design according to DIN VDE 0580

CERTIFICATES

Explosion proof acc. to 2014/34/EU (ATEX)

- The solenoid coils are only approved in combination with GSR valves.
- The code of the type examination certificate as well as the explosion protection marking can be found in the corresponding operating instructions.

ORDERING SYSTEM

Coils				Type		Voltage	
K	0	5	1	0	1	9	0

05	Standard			18	.182	05	12 V DC
D5	Temp.			03	.032	10	24 V DC
R5	Temp.			01	.012	39	205 V DC
S5	Term.box			70	.702	56	24 V AC
				80	.80..	75	110 C AC
1	Standard			32	.32..	90	230 V AC
9	ATEX			24	.24..	etc.	...
				etc.	...		

TECHNICAL FEATURES

Standard coils for general applications

Type	Type code	Special voltage	P(B9 W / VA	Device plug	Terminal box	T(A)	Insu-lation class*	Housing
.182	K05118..	X	6,8 / 11	X	-	-20°C/+50°C	H / F	Duroplastic
.032	K05103..	X	11 / 16	X	-	-20°C/+50°C	H / F	Duroplastic
.012	K05101..	X	18,5 / 24	X	-	-20°C/+50°C	H / F	Duroplastic
.692-NO	K05169..	X	25	X	-	-20°C/+50°C	H / F	Duroplastic
.702	K05170..	X	25	X	-	-20°C/+50°C	H / F	Duroplastic
.802	K05180..	X	24	X	-	-20°C/+35°C	H	Steel
S802	KS5180..	X	24	-	X	-55°C/+50°C	H	Steel
.322	K05132..	X	30	X	-	-20°C/+50°C	H	Steel
S322	KS5132..	X	30	-	X	-55°C/+50°C	H	Steel
.(S)242	K0(KS)5124..	X	46	-	X	-20(-40)°C/+50°C	H	Steel
.(S)272	K0(KS)5127..	X	100	-	X	-20(-40)°C/+50°C	H	Steel
.(S)352	K0(KS)5135..	X	150	-	X	-20(-40)°C/+50°C	H	Steel
.402	K05140..	> 100V	250	-	X	-20°C/+50°C	H	Steel

Solenoid coils for extended temperature range

Type	Type code	Special voltage	P(B) W / VA	Device plug	Terminal box	T(A)	Insu-lation class*	Housing
D182	KD5118..	-	6,8 / 11	X	-	-20°C/+70°C	H	Duroplastic
D012	KD5101..	-	18 / 24	X	-	-20°C/+70°C	H	Duroplastic
T012	KT5101..	X	18,5 / 24	X	-	-20°C/+50°C	H	Duroplastic
R802	KR5180..	X	18	X	-	-20°C/+50°C	H	Steel
T802	KT5180..	X	18	-	X	-40°C/+50°C	H	Steel
R322	KR5132..	X	21	X	-	-20°C/+50°C	H	Steel
T322	KT5132..	X	21	-	X	-40°C/+50°C	H	Steel
R242	KR5124..	X	44	-	X	-20°C/+50°C	H	Steel
T242	KT5124..	X	26	-	X	-40°C/+50°C	H	Steel
R272	KR5127..	X	60	-	X	-20°C/+50°C	H	Steel
T272	KT5127..	X	60	-	X	-40°C/+50°C	H	Steel
T352	KT5135..	X	80	-	X	-40°C/+50°C	H	Steel
T402	KT5140..	> 100V	180	-	X	-40°C/+50°C	H	Steel

P(B) = lift power (W at DC / VA at AC)
T(A) = max. ambient temperature
* Insulation class for wire [H (180°C] / total [F (155°C)]

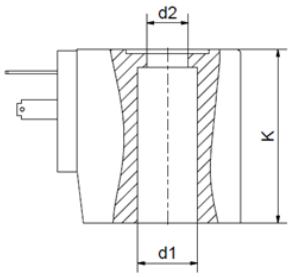
TECHNICAL FEATURES

Explosion proof coils acc. to 2014/34/EU (ATEX)								
Type	Type code	Special voltage	P(B) W / VA	Cable gland	Terminal box	T(A)	Insu-lation class*	Housing
Code: II 2G Ex mb IIC T4 Gb // II 2D Ex mb tb IIIC T130°C Db								
.178	K05917..	-	5,2 / 5,3	X	-	-20°C/+50°C	H / F	Thermoplastic
.148	K05914..	-	10 / 8,5	X	-	-20°C/+50°C	H / F	Thermoplastic
Code: II 2G Ex e mb IIC T4 Gb // II 2D Ex tb mb IIIC T130°C Db								
.048	K05904..	-	10	-	X	-40°C/+70°C	H / F	Thermoplastic
.808	K05980..	X	24	-	X	-55°C/+60°C	H	Steel
.328	K05932..	X	23	-	X	-55°C/+60°C	H	Steel
.248	K05924..	X	30	-	X	-55°C/+60°C	H	Steel
.278	K05927..	X	47	-	X	-55°C/+40°C	H	Steel
A278	K05927-..KL	X	47	-	X	-40°C/+70°C	H	Steel / Alum.
.358	K05935..	X	75	-	X	-55°C/+40°C	H	Steel

Solenoid coils with UL-approval								
Type	Type code	special-voltage	P(B) W / VA	Device plug	Terminal box	T(A)	Insu-lation class*	Housing
.182-UL	K05118..-UL	-	5,7 / 5,7	X	-	-20°C/+50°C	H / F	Duroplastic
.032-UL	K05103..-UL	-	12,3/16,8	X	-	-20°C/+50°C	H / F	Duroplastic
.012-UL	K05101..-UL	-	16,2 / 24	X	-	-20°C/+50°C	H / F	Duroplastic
.322-UL	K05132..-UL	X	30	-	X	-20°C/+35°C	H	Steel
.242-UL	K05124..-UL	X	46	-	X	-20°C/+35°C	H	Steel
.272-UL	K05127..-UL	X	100	-	X	-20°C/+35°C	H	Steel
.352-UL	K05135..-UL	X	150	-	X	-20°C/+35°C	H	Steel

P(B) = lift power (W at DC / VA at AC)
T(A) = max. ambient temperature
* Insulation class for wire [H (180°C] / total [F (155°C)]

DIMENSIONS



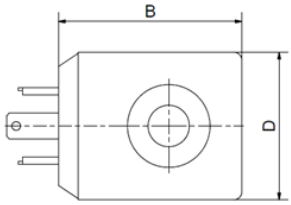
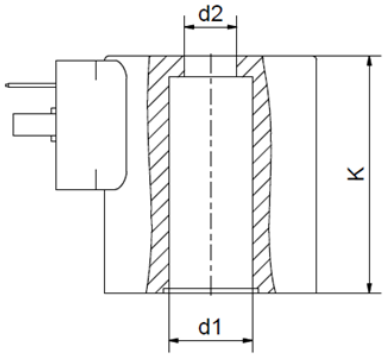


Fig. A



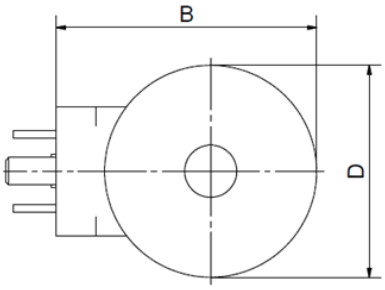
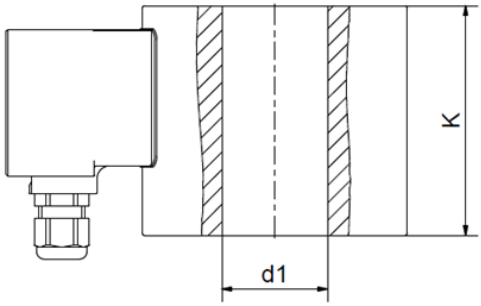


Fig. B



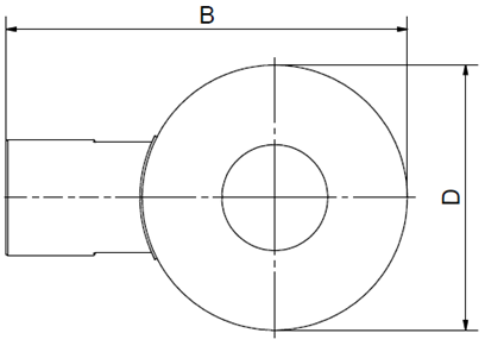


Fig. C

Standard solenoid coils and solenoid coils for extended temperature range								
	.182 D182	.032	.012 D012/T012	.702 .692-NO	.802 R802	S802 T802	.322 R322	S322 T322
Figure	A	A	A	A	B	C	B	C
D	30	30	36	36	49,0	49,0	63,0	63,0
d1	8,1	14,7	14,7	18,3	19,5	19,5	28,0	28,0
d2	8,0	10,1	10,1	12,1	12,1	12,1	28,0	28,0
B	35	39	45	54	72,0	99,2	86,0	114,1
K	29,5	42,0	42,0	54,0	55,0	55,0	59,0	59,0
kg	0,1	0,2	0,3	0,4	0,6	0,8	1,0	1,2

Standard solenoid coils and solenoid coils for extended temperature range				
	.242 T(R,S)242	.272 T(R,S)272	.352 T(R,S)352	.402 T402
Figure	C	C	C	C
D	77,0	105,0	145,0	210,0
d1	37,0	42,0	60,5	106,1
d2	37,0	42,0	60,5	106,1
C	131,0	159,1	199,0	263,0
K	70,0	91,3	144,0	293,0
kg	1,9	4,7	13,0	50,0

DIMENSIONS

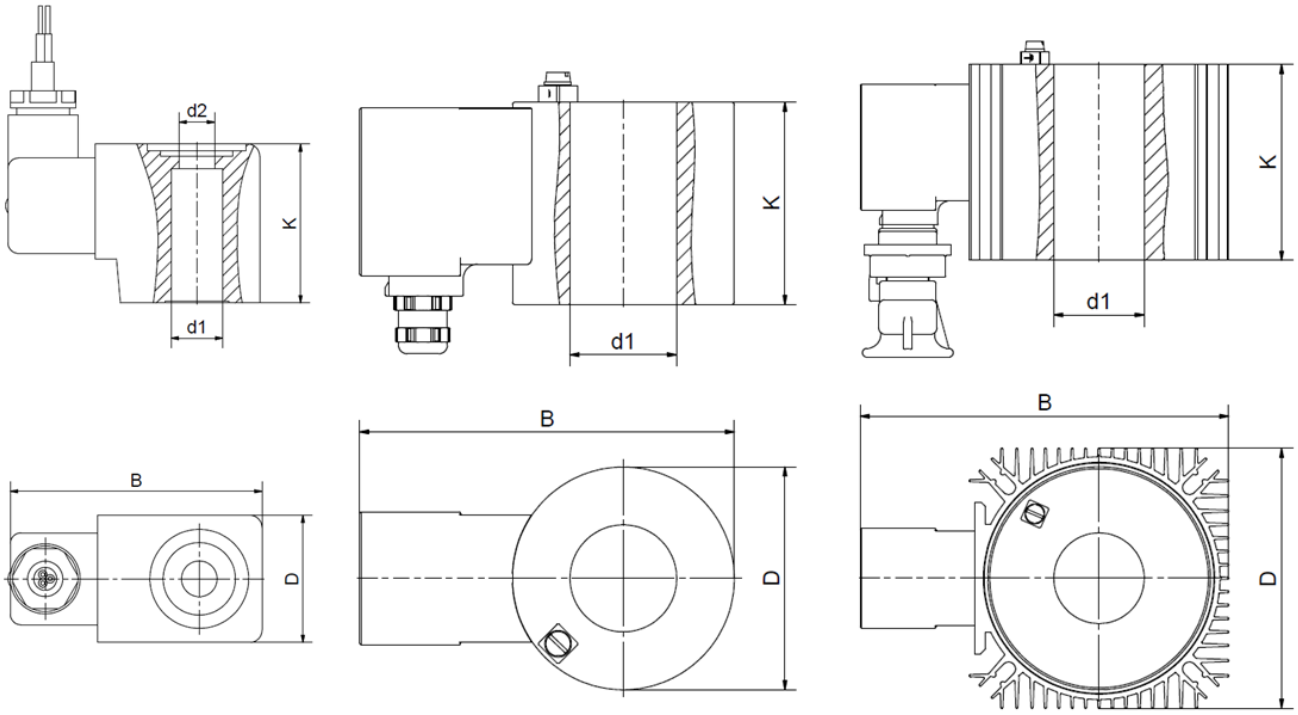


Fig. A Fig. B Fig. C

Explosion proof solenoid coils									
	.178	.148	.048	.808	.328	.248	.278	A278	.358
Figure	A	A	B	B	B	B	B	C	B
D	22	36,0	46,0	49,0	63,0	77,0	105,0	120,0	145,0
d1	8,1	14,7	14,7	19,5	28,0	37,0	42,0	42,0	60,5
d2	8,0	10,1	10,1	12,1	28,0	37,0	42,0	42,0	60,5
B	55,0	72,0	82,0	99,2	114,1	130,0	158,0	170,5	199,0
K	31,0	45,0	45,2	55,0	59,0	70,0	91,2	90,5	144,0
kg	0,4	0,3	0,3	0,8	1,2	1,9	4,7	5,1	13,0

Solenoid coils with UL-approval							
	.182-UL	.032-UL	.012-UL	.322-UL	.242-UL	.272-UL	.352-UL
Figure	A	A	A	B	B	B	B
D	30,0	30,0	36,0	63,0	77,0	105,0	145,0
d1	8,1	14,7	14,7	28,0	37,0	42,0	60,5
d2	8,0	10,1	10,1	28,0	37,0	42,0	60,5
B	47,5	57,7	57,7	114,1	130,0	158,0	199,0
K	29,5	42,0	42,0	59,0	69,8	91,3	144,0
kg	0,1	0,2	0,3	1,2	1,9	4,7	13,0

INFORMATION

- It is imperative to observe the installation and safety instructions in our operating and service manuals.
- Required ordering information: valve type, function NC/NO, pressure range, connection, nominal width, medium, flow rate, medium and ambient temperatures, connection voltage.
- **Detailed production-specific drawings and other technical information will be made available when an order is placed**

PLEASE NOTE

Pure DC coils with connector (1032, 1012, .702, .692, .802, .322) are supplied with a connector with an integrated rectifier for connection to AC voltage, which must be used. The coil voltage takes into account the voltage loss of the rectifier and thus deviates significantly from the supply voltage. When connected to 230V 50 / 60Hz, for example, the coil voltage would be 205V DC printed or marked on the coil.

- In order to avoid damage caused by incorrect supply voltages, the coil should only be put into operation if it is suitable according to the type plate imprint.
- DC coils with connector (.802, .322) for connection to AC voltage are supplied with a rectifier-plug, which is mandatory to use. The coil voltage takes into account the voltage loss of the rectifier and thus deviates significantly from the supply voltage. For example, if connected to 230V 50 / 60Hz, the coil voltage 205V DC would be printed or marked on the coil
- Surface temperatures of the magnet housings around 110 °C, up to an ambient temperature of 30 °C, are to be regarded as normal.
- Commissioning of DC coils only when assembled to the tube. Otherwise there is a risk of jamming, since all magnetizable materials are attracted.
- When commissioning for the first time after installation, make sure to hear a metallic noise when the plunger hit the iron core (applies to NC valves). Flush the tubing properly when this noice does not occure.
- The maximum IP protection is only achieved when the coil is mounted together with the O-rings on the top and bottom of the tube.
- Only fine-wire cables may be used as connecting cables. (No installation cables such as NYM-J 3x1.5!)
- Never operate AC solenoids unassembled (without valve)! This can destroy the coil. There is also a risk of burns.