23200, 2/2
Direct solenoid actuated poppet valves

- Port size: G1/2 ... G2
- Working from 0 bar up
- Suitable for vacuum down to 1,33·10-2 mbar · l/s
- Seals in either flow direction
- ATEX approved (see solenoid operators)

Technical features

Medium:
Neutral gases and liquids, aggressive gases and liquids (with contaminated fluids, upstream installation of a dirt trap is recommended)

Operation:
Direct operated solenoid poppet valve

Operating pressure:
30 bar (435 psi) maximum

Orifice:
12 ... 40 mm

Port size:
G1/2 ... G2

Mounting position:
Optional, preferably vertical

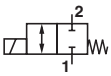
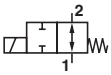
Flow direction:
Optional

Electrical connection:
M20 x 1,5

Ambient/Media temperature:
Depending on solenoid system
Brass:
-25° ... +80°C (-13 ... 176°F)
Grey cast iron
-10° ... +80°C (+14 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
Housing: Brass 2.0401 (Ms 58) or grey cast iron
Seat seal :NBR or FKM
Inner parts: Brass (Ms 58), stainless steel 1.4104 (430 F)

Technical data

Symbol	Port size	Solenoid Group	Orifice (mm)	Operating pressure min. (bar)	Operating pressure max. (bar)	kv-value (Cv (US) ≈ kv x 1,2	Material Housing	Material Seat seal	Weight (kg)	Dimensions No.	Model *1)
	G 1/2	30,5A	12	0	10	1,4	Brass	NBR	3,0	1	2323120
	G 1/2	38,5A	12	0	30	1,2	Brass	NBR	4,3	2	2324120
	G 3/4	38,5A	20	0	10	6,5	Grey cast iron	NBR	5,5	3	2323420
	G 3/4	47,5A	20	0	25	6,5	Grey cast iron	NBR	7,5	4	2324420
	G 1	38,5A	25	0	6	9,0	Grey cast iron	NBR	6,0	3	2322520
	G 1	47,5A	25	0	10	9,0	Grey cast iron	NBR	8,0	4	2323620
	G 1	47,5A	25	0	25	9,0	Grey cast iron	NBR	8,0	4	2324620
	G 1 1/2	47,5B	40	0	10	16,5	Grey cast iron	NBR	9,5	6	2323820
	G 2	47,5B	40	0	10	16,5	Grey cast iron	NBR	9,5	6	2323920
	G 1/2	30,5A	12	0	10	1,4	Brass	NBR	3,0	1	2326120
	G 1/2	38,5A	12	0	30	1,2	Brass	NBR	4,3	2	2327120
	G 3/4	38,5A	20	0	10	6,5	Grey cast iron	NBR	5,5	3	2326420
	G 3/4	47,5A	20	0	25	6,5	Grey cast iron	NBR	7,5	4	2327420
	G 1	38,5A	25	0	6	9,0	Grey cast iron	NBR	6,0	3	2325520
	G 1	47,5A	25	0	10	9,0	Grey cast iron	NBR	8,0	4	2326620
	G 1	47,5A	25	0	25	9,0	Grey cast iron	NBR	8,0	4	2327620
	G 1 1/2	47,5B	40	0	10	16,5	Grey cast iron	NBR	9,5	6	2326820
	G 2	47,5B	40	0	10	16,5	Grey cast iron	NBR	9,5	6	2326920

* When ordering please indicate solenoid, voltage and current type (frequency).

Solenoid operators (27)
Solenoids group 30,5A

	Power consumption 24 V d.c. (W)	Power consumption 230 V a.c. (VA)	Rated current 24 V d.c. (m A)	Rated current 230 V a.c. (m A)	Protection class IP	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Drawing No.	Circuit diagram No.	Model
	21,4	–	891	–	IP65 (with cable gland)	–	-25...+60	M20 x 1,5	21	2	1300
	–	22,8	–	99	IP65 (with cable gland)	–	-25...+60	M20 x 1,5	21	6	1301
	21,4	–	891	–	IP65 (with cable gland)	II 2G Ex eb mb IIC T4/T5 Gb II 2D Ex tb IIIC T120°C Db	T4: -20 ... +80°C T5: -40 ... +60°C -20 ... +80°C	M20 x 1,5	22	4	1440
	–	22,8	–	99	IP65 (with cable gland)	II 2G Ex eb mb IIC T4/T5 Gb II 2D Ex tb IIIC T120°C Db	T4: -20 ... +80°C T5: -40 ... +60°C -20 ... +80°C	M20 x 1,5	22	7	1441

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
IP66 version on request

Solenoids group 38,5A

	Power consumption 24 V d.c. (W)	Power consumption 230 V a.c. (VA)	Rated current 24 V d.c. (m A)	Rated current 230 V a.c. (m A)	Protection class IP	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Drawing No.	Circuit diagram No.	Model
	38,7	–	1614	–	IP65 (with cable gland)	–	-25...+60 Fluid max. +80	M20 x 1,5	23	2	1500
	–	42,1	–	169	IP65 (with cable gland)	–	-25...+60 Fluid max. +80	M20 x 1,5	23	6	1501
	38,7	–	1614	–	IP65 (with cable gland)	II 2 G Ex eb mb IIC T4 Gb	-20...+40	M20 x 1,5 *6)	24	2	1570
	–	42,1	–	169	IP65 (with cable gland)	II 2 G Ex eb mb IIC T4 Gb	-20...+40	M20 x 1,5 *6)	24	6	1571

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
IP66 version on request

Approvals

Model	Approvals ATEX	IECEx	FM		Datasheet
143x, 144x	KEMA 03 ATEX 1016 X		IECEx DEK 11.0066X	–	N/en 7.1.510
15xx, 157x	DEKRA BVS 08 ATEX E 117		–	–	N/en 7.1.520

Solenoids group 47,5A

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Rated current 24 V d.c. (m A)	230 V a.c. (m A)	Protection class IP	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Weight (kg)	Drawing No.	Circuit diagram No.	Model
	52,3	–	2181	–	IP65 (with cable gland)	–	-40...+40 Fluid max. +80	M20 x1,5 *6)	4,6	25	2	1600
	–	56,4	–	245	IP65 (with cable gland)	–	-40...+40 Fluid max. +80	M20 x1,5 *6)	4,6	25	6	1601

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*6) Cable gland not supplied, see table »Accessories«

Solenoids group 47,5B

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Rated current 24 V d.c. (m A)	230 V a.c. (m A)	Protection class IP	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Weight (kg)	Drawing No.	Circuit diagram No.	Model
	62,5	–	2606	–	IP65 (with cable gland)	–	-40...+60 Fluid max. +80	M20 x1,5 *6)	9,7	26	2	1700
	–	58,9	–	256	IP65 (with cable gland)	–	-40...+60 Fluid max. +80	M20 x1,5 *6)	9,7	26	6	1701

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*6) Cable gland not supplied, see table »Accessories«

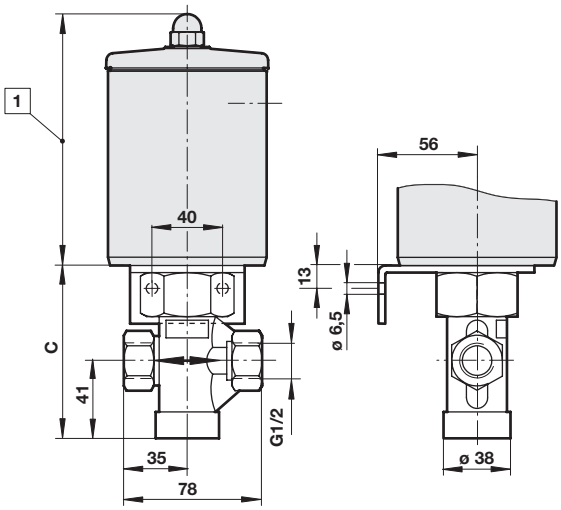
Accessories

Dimensions in mm
Projection/First angle

	Cable gland protection class IP65 nickel plated brass		Cable gland protection class (ATEX), nickel plated brass		
					
Port size	Cable-Ø	Model	Protection class	Cable-Ø	Model
M 20x1,5	6,5...9,5 mm	0589241	II2GD Ex e	5...8 mm	0588819
M 20x1,5	9,0...13 mm	0589242			

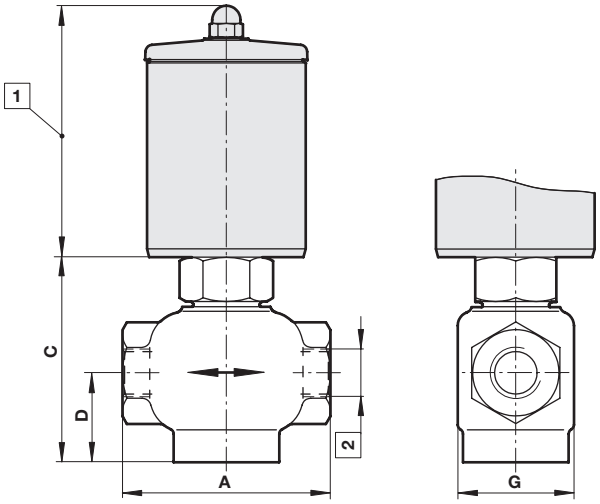
Basic dimensions for valves

1 2



Dimensions No.	C
1	90
2	96

3 4 5

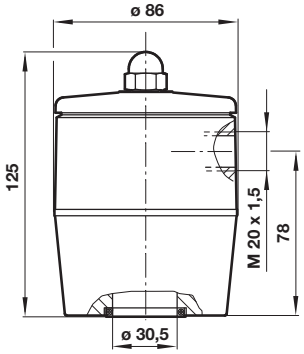


Dimensions No.	A	C	D	G
3	118	120	50,5	66
4	118	125	50.5	66
5	180	179	79	94

1 Dimensions for solenoid operators page 5.
2 For port size, see technical features

Basic dimensions solenoid

21



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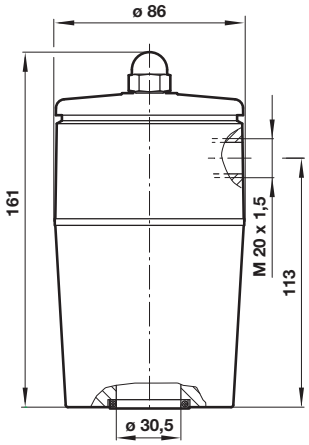

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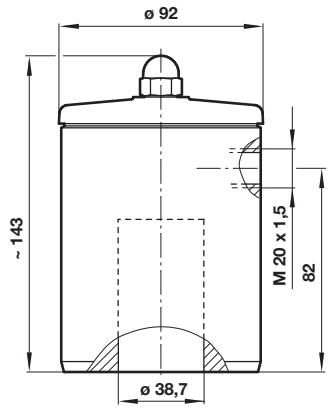
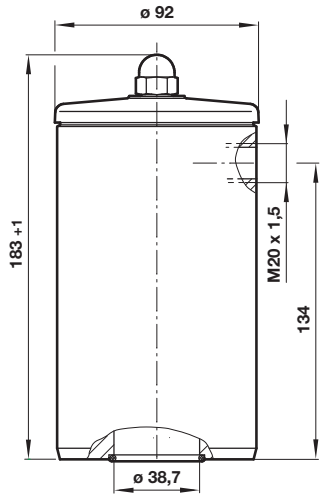


(24)

Dimensions in mm
Projection/First angle



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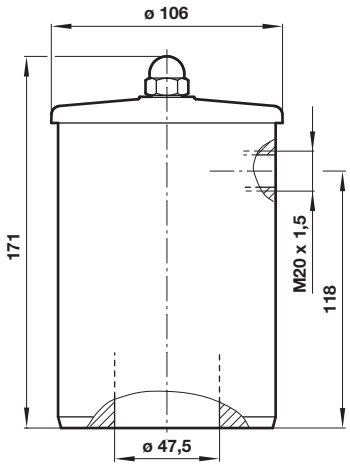

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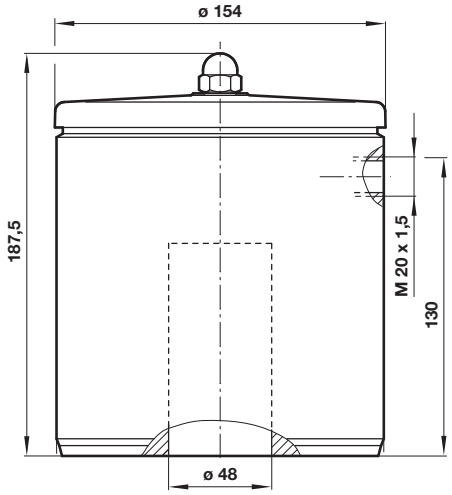
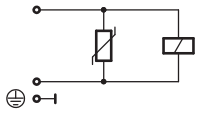


Circuit diagram

(2)



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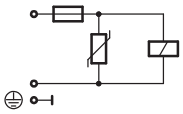

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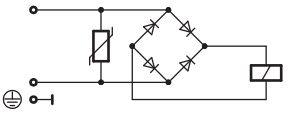

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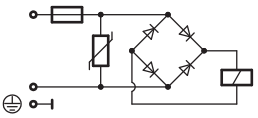
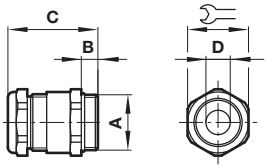


Cable gland

Dimensions in mm
Projection/First angle



A	B	C	ø D		Model
M20 x 1,5	6	26	6,5 ... 9,5	22	0589241
M20 x 1,5	6,5	26	9 ... 13	22	0589242
M20 x 1,5	9	36	5 ... 8	22	0588819

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **»Technical features/data«**.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.