

2/2-way high pressure solenoid valve DN 8

For compressed natural gas (CNG)

Indirectly solenoid actuated

Piston valves

Internal threads G 1/4 to G 1/2

Operating pressure 10 to 320 bar

*Further customized solutions
available upon request!*

8590178

8590185

8590337

8590371

Description (standard valve)

Switching function:	normally closed
Flow direction:	determined
Fluid temperature:	
Solenoid 9841	-20 °C up to max. +60 °C
Solenoid 9186	-20 °C up to max. +60 °C
Ambient temperature:	
Solenoid 9841	-20 °C up to max. +50 °C
Solenoid 9186	-20 °C up to max. +40 °C
Mounting position:	optional, preferably solenoid vertical on top



Type 8590185.9841.02400



Type 8590178.9186.23049

Material

Valve body:	Brass
Seat seal:	Polymer
Internal parts:	Brass / Stainless steel / Polymer

Internal leakage acc. to DIN EN 12266-1 Leakage rate "E"

External leakage acc. to DIN EN 12266-1 Leakage rate "A"

Installation of a 40 µm filter in front of the valve is required.

Characteristic data

Valves

Part Number Solenoid with --- or ~	Nominal Diameter (mm)	Connection size	Operating pressure (max. differential pressure)		kv-value * (Base m ³ /h)	Weight (kg)
			min. (bar)	max. (bar)		
8590371.9841	8	G 1/4	10	320 (320)	1	2.2
8590371.9186	8	G 1/4	10	320 (320)	1	2.2
8590185.9841	8	G 3/8	10	320 (320)	1	2.2
8590178.9186	8	G 3/8	10	320 (320)	1	2.2
8590337.9841	8	G 1/2	10	320 (320)	1	2.2
8590337.9186	8	G 1/2	10	320 (320)	1	2.2

* Cv-value (US) ≈ kv-value x 1.2

Acc. to PED 97/23/EC and ATEX 94/9/EC!

Solenoid 9841

Standard voltage

DC =	AC ~ 50 Hz – 60 Hz	
24 V	–	–
–	230 V	–

Voltage range ±10 %
100 % duty cycle
Protection class acc. to EN 60529 IP65

XXXXXX.9841

Solenoid with 3 m cable ends
Protection class according to
- II 2 G Ex mb II T4
- II 2 D Ex tD A21 IP 65 T 130 °C

Solenoid 9186

Standard voltage

DC =	AC ~ 40 Hz – 60 Hz	
24 V	–	–
–	230 V	–

Voltage range ±10 %
100 % duty cycle
Protection class acc. to EN 60529 IP65

XXXXXX.9186

Solenoid with terminal box
cable gland M16 x 1.5
cable gland diameter range Ø 5-10 mm
Protection class according to
- EEx me II T4
- Ex II 2 GD IP 65 T 140 °C

Power Consumption

According to DIN VDE 0580 at coil temperature of +20 °C. In operation the power consumption of the solenoid decreases by approx. 30 %.

Solenoid	DC =	AC ~	
		Inrush	Holding
9841	10.1 W	9.2 VA	9.2 VA
9186	14 W	16 VA	16 VA

Further Options (Solenoids)

XXXXXX.9845 Solenoid with 10 m cable ends
Protection class according to
- II 2 G Ex mb II T4
- II 2 D Ex tD A21 IP 65 T 130 °C

XXXXXX.3826 with 1/2 - 14 NPT female thread and 460 mm flying leads
Protection class according to ANSI/NEMA USA: FM approved (File-No. 2Z2A6.AE)
Canada: CSA certified (File-No. LR 57643-6)
Solenoids in temperature class T3C (160° C) are usable in Ex-areas.

Class I, Division 1 and 2, Groups A-D (Gases and fumes)
Class II, Division 1 and 2, Groups E-G (dusts)
Class III, Division 1 and 2 (fibres and fluffs)
Ambient temperature: –20 °C up to +60° C

XXXXXX.3827 with 1/2 - 14 NPT female thread and 460 mm flying leads
for AC with integrated rectifier
Protection class according to ANSI/NEMA USA: FM approved (File-No. 2Z2 A6.AE)
Canada: CSA certified (File-No. LR57643-6)
Solenoids in temperature class T3C (160° C) are usable in Ex-areas.

Class I, Division 1 and 2, Groups A-D (Gases and fumes)
Class II, Division 1 and 2, Groups E-G (dusts)
Class III, Division 1 and 2 (fibres and fluffs)
Ambient temperature: –20 °C up to +60° C

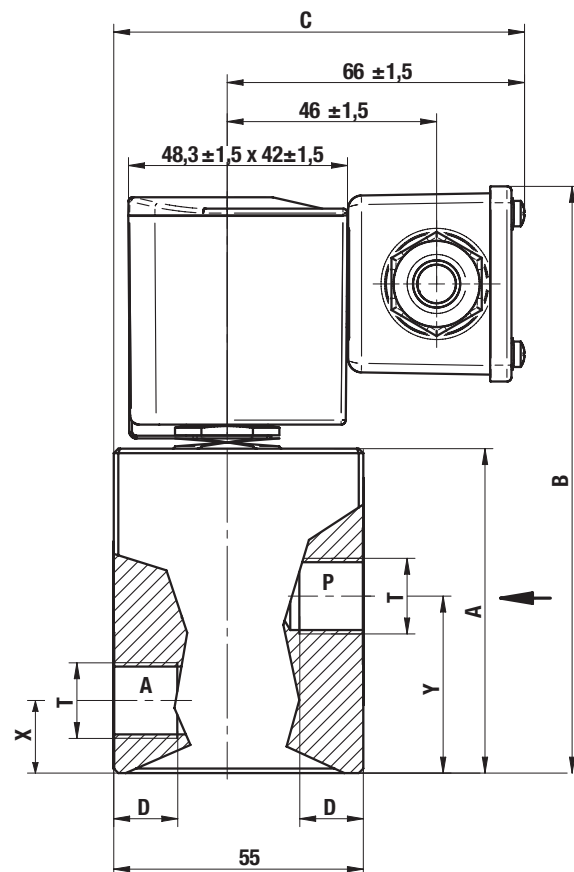
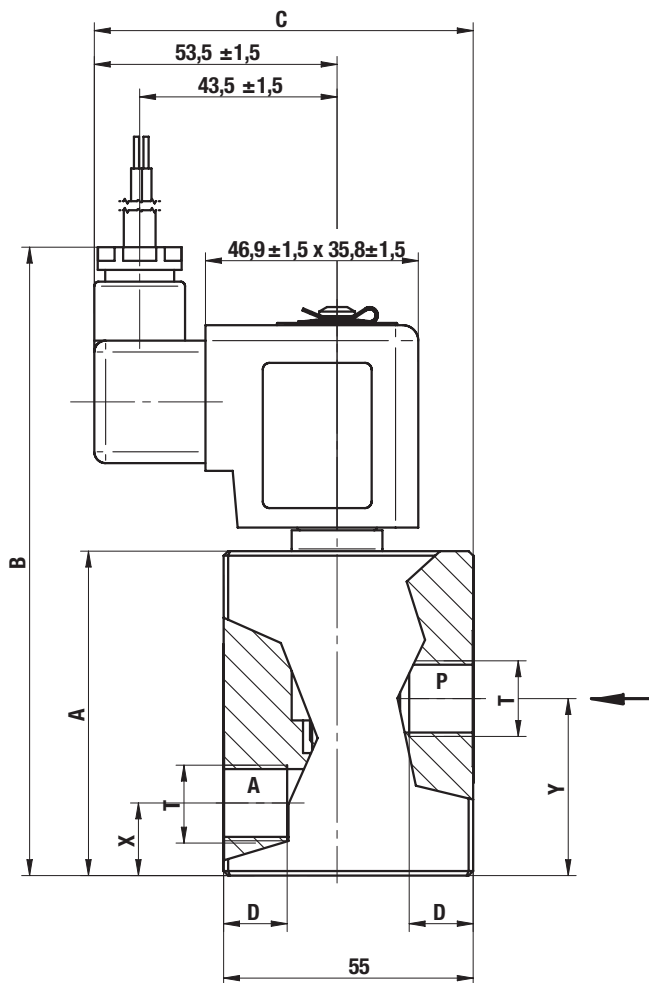
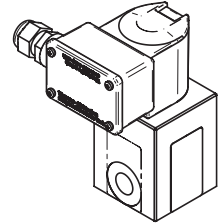
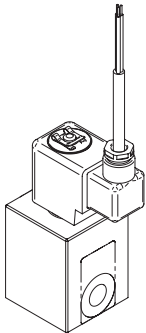
XXXXXX.428X Solenoid with terminal box
cable gland M20 x 1.5
cable gland diameter range Ø 5-8 mm
Protection class according to
- II 2G Ex emb II T4/T5
- II 2D Ex tD A21 IP 66 T 130° C
Ambient temperature: T4 –40 °C up to +50° C
T5 –40 °C up to +40° C

XXXXXX.468X Solenoid with terminal box
cable gland M20 x 1.5
cable gland diameter range Ø 10-14 mm
1/2 - 14 NPT Ø 7.5-11.9 mm
Protection class according to
- II 2G Ex dmb II T4/T5
- II 2D Ex tD A21 IP 66 T 130° C
Ambient temperature: T4 –40 °C up to +50° C
T5 –40 °C up to +40° C

Drawing

Type 8590185.9841

Type 8590178.9186



	8590371	8590178	8590185	8590337
T => companion dimensions	G 1/4	G 3/8	G 3/8	G 1/2
D => depth of thread (mm)	13	14	14	16
X => (mm)	16	16	16	16
Y => (mm)	39	39	39	42
A => block size (mm)	71.5	71.5	71.5	74.5
B => footage (mm) extent	$130 \pm 2,5$	$130 \pm 2,5$	$139 \pm 2,5$	$133 \pm 2,5$
C => footage (mm) breadth	96 ± 2	96 ± 2	$83,5 \pm 2$	96 ± 2