

83830

1.050 bar hydrogen valve

- Designed according to ISO 19880-3 for HRS
- Medium pressure cone thread connection
- All fluid wetted, pressure retaining parts are made from 1.4435 / XM19
- -50°C (-58°F) Fluid temp. fast fueling ready
- No pilot air required, no additional pilot valves
- No external soft sealings
- Low maintenance / decreasing total cost of ownership
- KV Value up to 1 m³/h (for 8 mm seat)
KV Value up to 2,2 m³/h (for 13 mm seat)
- Minimum burst pressure of at least 3 times the working pressure



Technical features

Medium:
Hydrogen,
neutral non-aggressive gases

Switching function:
Normally closed /
Normally open

Operation:
Servo operated

Mounting position:
Optional

Flow direction:
Determined

MP-Tubing System:
1/4", 3/8", 9/16", 3/4", 1"

Max. Operating pressure:
1.050 bar

Min. Operating pressure difference:
10 bar (145 psi)

Fluid temperature:
-50 ... +80°C (-58 ... +176°F)

Ambient temperature:
-40 ... +55°C (-40 ... +131°F)

Leakage *5):
Internal (he) < 1*10⁻⁴ mbar*l/s
External (he) < 1*10⁻⁵ mbar*l/s

Material:
Body: Stainless steel (1.4435)
Seat seal: PEEK/PEKEKK

For contaminated fluids
insertion of a strainer is
recommended.

Technical data – standard models

Symbol	MP-Tubing System *4)		Seat Orifice	Bore diameter *3)	Max. Operating pressure PS (Peak pressure)		Model *1) *2)
	Tube size	Pressure rating tube			(bar)	(psi)	
	3/8"	1.550	8	5,1	10 ... 1.050	145 ... 15.228	838311x.xxxx.xxxxx
	9/16"	1.050	8	9,1	10 ... 1.050	145 ... 15.228	838321x.xxxx.xxxxx
	9/16"	1.550	8	7,8	10 ... 1.050	145 ... 15.228	838331x.xxxx.xxxxx
	3/4"	1.050	13	13,1	10 ... 1.050	145 ... 15.228	838342x.xxxx.xxxxx
	3/4"	1.550	13	11,1	10 ... 1.050	145 ... 15.228	838352x.xxxx.xxxxx
	1"	1.050	13	17,1	10 ... 1.050	145 ... 15.228	838362x.xxxx.xxxxx
	1"	1.550	13	14,3	10 ... 1.050	145 ... 15.228	838372x.xxxx.xxxxx

*1) For ambient temperatures below -25°C the solenoid needs to be protected against mechanical shocks and impacts from the environment

*2) For solenoid option see page 2

*3) Please see page 4 (Dimensions)

*4) Please see page 3 for port size details

*5) At 10 bar diff. pressure

Option selector

8383★★★★★★

MP-Tubing System		
Tube size	Pressure rating	Substitute
3/8"	1.550 bar	1
9/16"	1.050 bar	2
9/16"	1.550 bar	3
3/4"	1.050 bar	4
3/4"	1.550 bar	5
1"	1.050 bar	6
1"	1.550 bar	7
Seat orifice (mm)		Substitute
8		1
13		2
8 with integrated check-valve		6
13 with integrated check-valve		7
Valve options		Substitute
Normally closed (NC)		0
Normally open (NO) *6)		1
Normally closed (NC), PT connection G1/4		2
Normally open (NO), PT connection G1/4		3

Frequency	Substitute
See table frequency codes	XX
Voltage	Substitute
See table voltage codes	XXX
Solenoid options	Substitute
Ex-Coil	6236
Solenoid in V. d.c. / a.c.	
Solenoid in V. d.c.	8365

*6) On request up to 8 mm seat orifice

Standard solenoid systems

Voltage and Frequency Solenoid 6236					
Code Voltage	Code Frequency	Voltage	Frequency	Power Consumption Inrush	Power Consumption Holding
024	00	24 V d.c.	-	16 W	16 W
230	49	230 V a.c.	40-60 Hz	18 VA	18 VA
012	00	12 V d.c.	-	16 W	16 W
Voltage and Frequency Solenoid 8365					
024	00	24 V d.c.	-	16 W	16 W
012	00	12 V d.c.	-	16 W	16 W

Further versions on request!

National code in last digit	2nd label with
DC XXX01 = CCC Certification	
AC XXX41 = CCC Certification	
DC XXX03 = KOSHA Certification	
AC XXX43 = KOSHA Certification	

Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

According to DIN VDE 0580 at a solenoid temperature of +20°C. At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

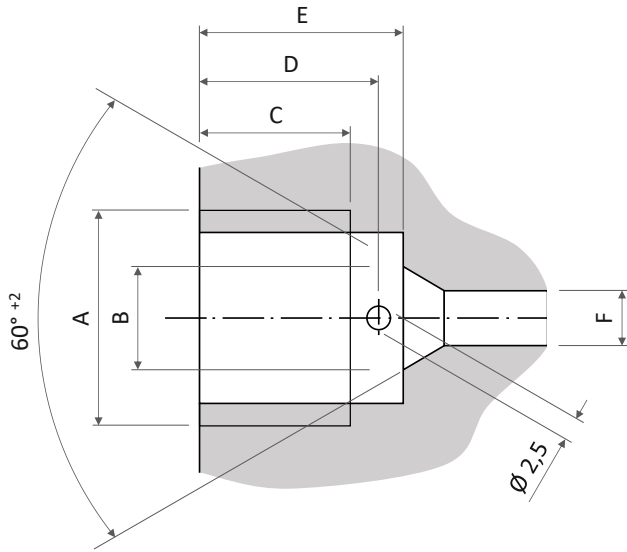
Additional solenoid systems for hazardous areas

ATEX category	ATEX protection class	IP protection class	Solenoid	Standard voltages
II 2G II 2D	Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db	IP66	6236	24 V d.c., 110 V a.c., 230 V a.c.

Attention!

The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

Dimensions



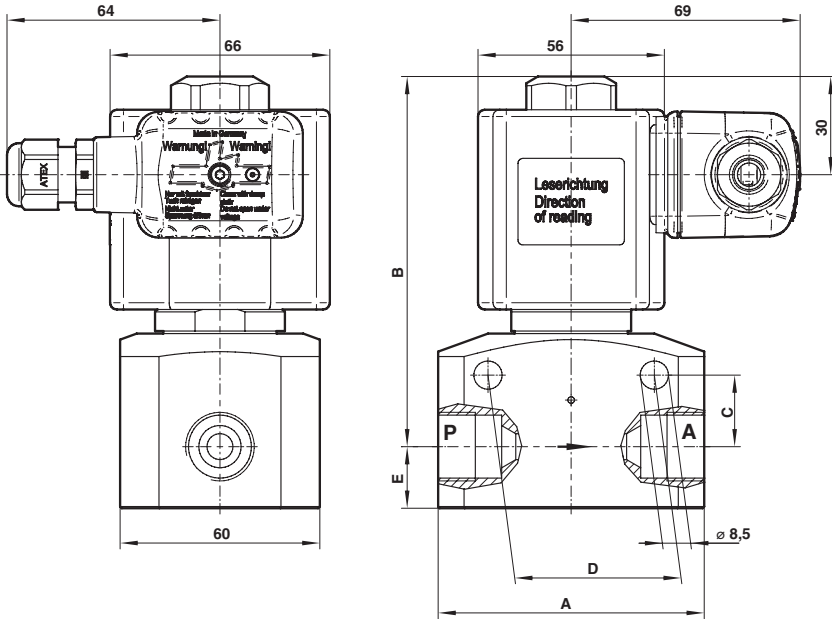
	MP-Tubing System		Tubing size O.D. x I.D. (mm)	Dimensions						Tubing Engagement Allowance
	Tube size	Tubing pressure (bar)		A *7) (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	
838311x.xxxx.xxxxxx	3/8"	1.550	9,53 x 5,17	9/16-18	7,7	9,6	12,7	15,7	5,1	17,5
838321x.xxxx.xxxxxx	9/16"	1.050	14,29 x 9,13	13/16-16	12,7	11,2	15,1	19,1	9,1	21,1
838331x.xxxx.xxxxxx	9/16"	1.550	14,29 x 7,93	13/16-16	12,7	11,2	15,1	19,1	7,8	21,3
838342x.xxxx.xxxxxx	3/4"	1.050	19,05 x 13,1	3/4-14 NPS	15,7	12,7	18,3	23,9	13,1	25,1
838352x.xxxx.xxxxxx	3/4"	1.550	19,05 x 11,12	3/4-14 NPS	15,7	12,7	18,3	23,9	11,1	25,4
838362x.xxxx.xxxxxx	1"	1.050	25,4 x 17,47	1-3/8-12	22,4	20,6	27	33,3	17,5	35,1
838372x.xxxx.xxxxxx	1"	1.550	25,4 x 14,27	1-3/8-12	22,4	20,6	27	33,3	14,3	36,3

*7) Unified National Fine thread, Class 25 All dimensions are for references only and are subject to change

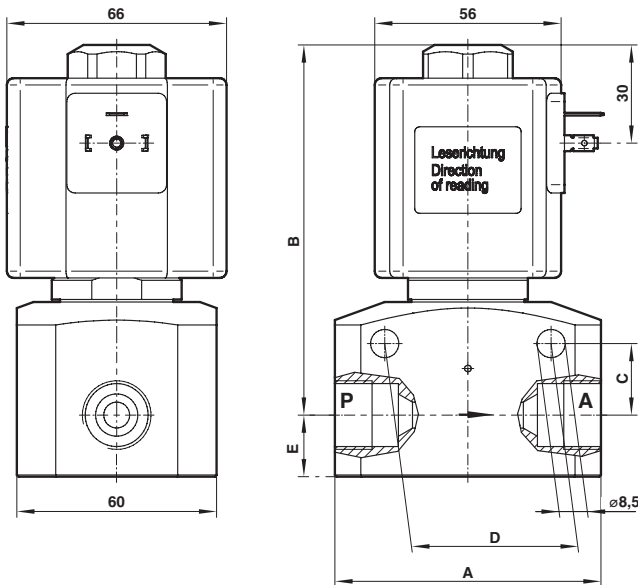
Variants without checkvalve

Hazardous Area Coil XXXXXXX.6236.XXXXX

Dimensions in mm
Projection/first angle



Non-Hazardous Area Coil XXXXXXX.8365.XXXX

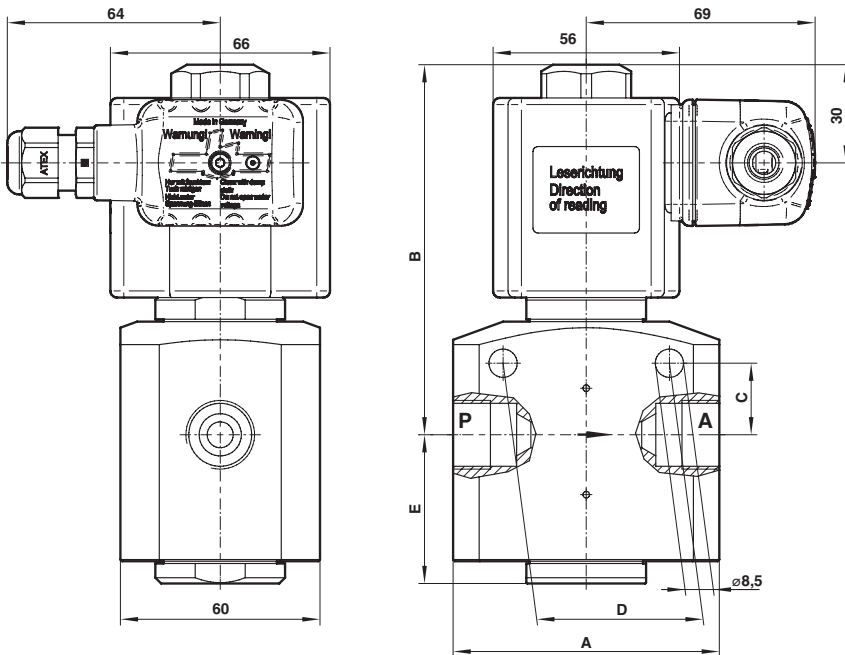


Without checkvalve					
Type	A	B	C	D	E
838311X					
838321X	80	111	21,5	50	
838331X					18,5
838342X	100				
838352X		117	28	66	
838362X	130				25
838372X					

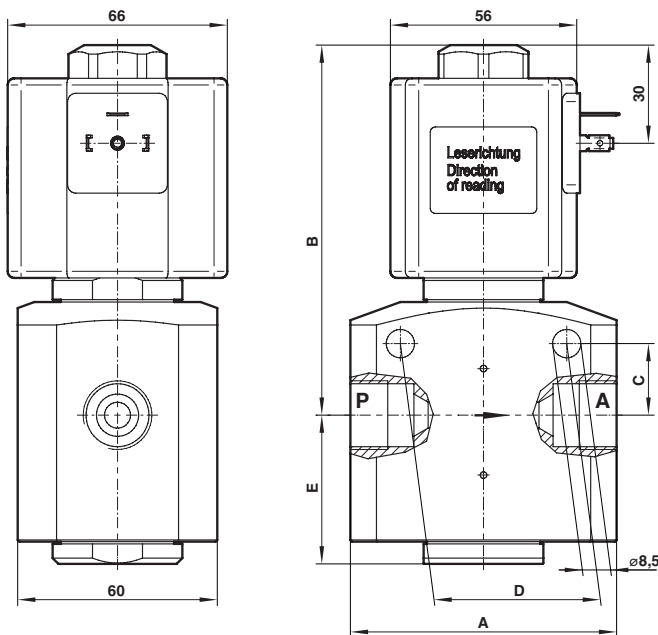
Variants with checkvalve

Hazardous Area Coil XXXXXXXX.6236.XXXXX

Dimensions in mm
Projection/first angle



Non-Hazardous Area Coil XXXXXXXX.8365.XXXX



With checkvalve					
Type	A	B	C	D	E
838316X					
838326X	80	111	21,5	50	45
838336X					
838347X	100				
838357X		117	28	66	55
838367X	130				
838377X					

Note to Pressure Equipment Directive (PED):

The valves of this series up to and including DN 25 (G1) are according to Art. 4 § 3 of the Pressure Equipment Directive (PED) 2014/68/EU. This means interpretation and production are in accordance to engineers practice wellknown in the member countries. The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G1) Art. 4 § (1) Letter d) applies:

The basic requirements of the Enclosure I of the PED must be fulfilled. The CE-sign at the valve includes the PED. A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2014/30/EU) satisfied.

Note to EAC marking:

The EAC-marked products comply with the applicable requirements stated in the technical regulations of the Eurasian Economic Union.