

FEATURES

- Explosionproof operator for use in potentially explosive atmospheres according to ATEX-Directive 94/9/EC
EC type examination certificate no.: **LCIE 09 ATEX 3054 X**
IECEx Certificate of Conformity no.: **IECEx LCI 09.0022X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards IEC and EN: 60079-0, 60079-11, 61241-0 and 61241-1
- Easy electrical installation by means of a screw terminal coil
- Ingress protection degree IP67
- For solenoid operator type WSLI for use in mines susceptible to firedamp, group I: see "Options"
- A wide range of valves can be supplied with the operator

CONSTRUCTION

Solenoid enclosure	LI	Aluminium, cataphoresis black painting
	WSLI	Stainless steel (AISI 316L)
Bonnet	LI	Stainless steel
	WSLI	Stainless steel (AISI 316L)
Cover screws		Stainless steel
Core, core tube and plugnut		Stainless steel
Seals		VMQ
Upper disc		FPM
Lower disc		NBR
Nameplate		Stainless steel
Coil connection		Embedded screw terminals
Safety code	LI ⁽¹⁾ / WSLI	II 1G Ex ia IIC T6 Ga II 2D Ex t IIIC T85°C IP67 Db

! ⁽¹⁾ For use in zone 0 locations, see the installation conditions given in the I&M instructions.

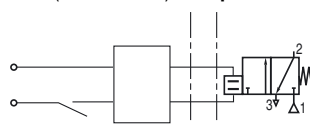
ELECTRICAL CHARACTERISTICS

Coil insulation class F
Standard voltages DC (=) : 24V

voltage (U _n) (max. ripple 10%)	power ratings (P _n)	typical functional ratings		R		operator ambient temperature range (TS)	type ⁽⁴⁾
	hot/cold =	I _(ON) min.	U _(ON) min.	20°C	max. T6		
(V)	(W)	(mA)	(V)	(Ω)	(Ω)	(°C) ⁽²⁾	
24	0,5	32	12,5	288	354	-40 to +60	01

P _n	safety parameters				
	U _i = (DC)	I _i	P _i	L _i	C _i
(W)	(V)	(mA)	(W)	(H)	(μF)
0,5	32	500	1,5	0	0

safe area (RS interface) explosive area



Example of use with a Zener barrier installed in a non-hazardous zone

TEMPERATURE CLASSIFICATION TABLES

DC (=) solenoids

P _n (watt)	solenoid size		maximum ambient °C ⁽²⁾
		M6	surface temperature
			T6 85°C
insulation class F (155°C) 100% E.D. ⁽³⁾			
0,5		●	60

Check the wattage compatibility with the product selected.

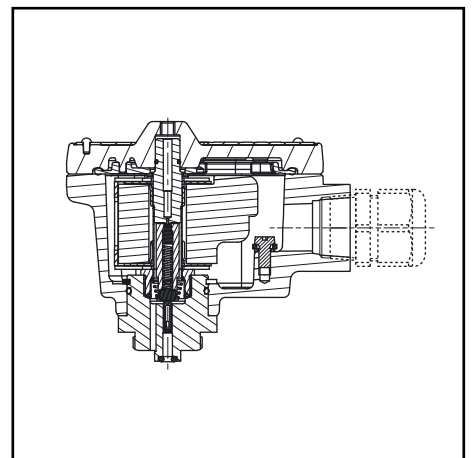
⁽²⁾ The minimum allowable ambient temperature is -40°C for the operator. Actual temperature range can be limited depending on valve operation limits.

⁽³⁾ This intrinsically safe valve must be connected to a specific, approved power supply (safety barrier or interface) located in a safe area. See list of safety barriers/interfaces on page 2.

⁽⁴⁾ Refer to the dimensional drawings on the following page.

CONNECTIONS

- Internal and external earthing connection
- The operator can be rotated through 360° to select the most favourable position for cable entry
- Electrical connection between solenoid valve and barrier/interface with cable type A or B according to EN 50039



ORDERING INFORMATION

A valve supplied with the intrinsically safe operator will be identified with prefix LI or WSLI before the catalogue number.

Example: **LI G 551A307 24V/DC**

operator pipe thread basic number voltage

OPTIONS

- WSLI explosionproof enclosures for use in mining, I M1 Ex ia I, to ATEX Directive 94/9/EC (EC type examination certificate no: FTZÚ 10 ATEX 0193)

RECOMMENDED INTERFACES

Located in safe areas, these interfaces allow to feed the intrinsically safe solenoid valves located in explosive areas.

This equipment must be ordered from its respective manufacturers, specifying that they are intended to feed intrinsically safe solenoid operators:

LI / WSLI: II 1G Ex ia IIC T6 Ga, II 2D Ex t IIIC T85°C IP67 Db.

INTERFACES		
manufacturer	module type	1G/2G T6 IIC
ABB	DO910S	X
Bartec	07-7331-2105/1000	X
	07-7331-2301/1100	X
G.M. International	D1040Q-2	X
	D1042Q-2	X
	D1043Q-2	X
MTL	815-DO-04	X
	4021S	X
Pepperl + Fuchs	KFD2-SD-Ex1.17	X
	KFD2-SD-Ex1.36	X
	KFD2-SD-Ex1.48	X
	KFD2-SD-Ex1.48.90A	X
	KFD2-SL-Ex1.48	X
	KFD2-SL-Ex1.48.90A	X
	KFD2-SL2-Ex1	X
	KFD2-SL2-Ex1.B	X
	KFD2-SL2-Ex1.LK	X
	KFD2-SL2-Ex2	X
	KFD2-SL2-Ex2.B	X
	KFD2-VD-Ex1.1560	X
	KFD2-VD-Ex1.1835	X
	LB-2103	X
	LB-2105	X
	LB-2112	X
	FB-2203	X
FB-2205	X	
FB-2212	X	
PHOENIX CONTACT	MACX MCR-EX-SD-24-48-LP-(SP)	X
	MACX MCR-EX-SD-21-60-LP-(SP)	X
	PI-EX-SD-24-48	X
Stahl	PI-EX-SD-21-60	X
	9475/12-04-11	X
	9475/12-04-21	X
Turck	9475/12-04-31	X
	MK72-S09-Ex0/24VDC	X
	MC72-41Ex-T/24VDC	X
	MC72-44Ex-T	X

INTERFACES		
manufacturer	module type	1G/2G T6 IIC
Siemens	ET2001S double	X
	6ES7132-7RD10-OAB0 2 ways	X
	6ES7132-7RD20-OAB0	X
	6ES7132-7RD20-OAB0 2 ways	X

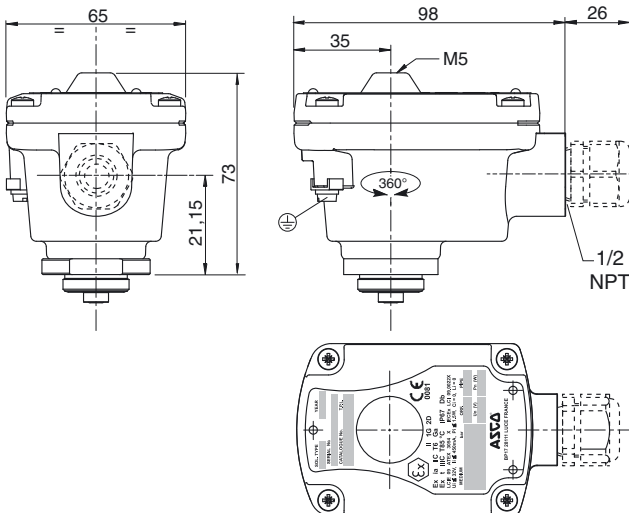
ZENER BARRIERS		
manufacturer	module type	1G/2G T6 IIC
CEAG	SB-3722	X
	SB-2420	X
	SB-3729	X
	SB-3728	X
	SB-0728	X
MTL	MTL 722	X
	MTL 728	X
	MTL 728P	X
Pepperl + Fuchs	MTL 779	X
	Z728	X
	Z728.H	X
Stahl	Z728.CL	X
	9001/01-199-150-101	X
	9001/01-280-085-101	X
	9001/01-280-100-101	X
	9001/01-280-110-101	X

In accordance with the zone classification and the national legislation of each country, apply the certification procedures for the connection of IS-rated products with associated equipment. All information subject to change without notice. All responsibility for the use of products from other suppliers and the possible modifications of their characteristics is disclaimed.

DIMENSIONS (mm), WEIGHT (kg)

TYPE LI

Prefix "LI" Solenoid
Aluminium, cataphoresis black painting
IEC and EN: 60079-11, 61241-1
II 1G Ex ia IIC T6 Ga, II 2D Ex t IIIC T85°C IP67 Db



prefix	weight
LI	0,56
WSLI	1,17

TYPE WSLI

Prefix "WSLI" Solenoid
Stainless steel
IEC and EN: 60079-11, 61241-1
II 1G Ex ia IIC T6 Ga, II 2D Ex t IIIC T85°C IP67 Db

