

## Solenoid coil MKY45/18x60 For explosion-hazard zones ATEX certified Protection class IP65/67

## DESCRIPTION

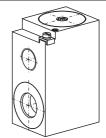
Solenoid coil in acc. with directive 94/9/EC (ATEX) for explosion-hazard zones. Ex: Corresponds to the European standards EN 60079-0, EN 60079-1 (Gas) EN 61241-0, EN 61241-1 (Dust) d: Flameproof enclosures tD: Protection by enclosure Device group II: For all explosion-hazard zones, except mining Gas group IIC: Gas groups IIA + IIB included Device category 2G: for zones 1 and 2 (gas) Device category 2D: for zones 21 + 22 (dust) Zones: 1/21 and 2/22 EC-type examination certificate: PTB 07 ATEX 1023 The steel housing is zinc-/nickel-coated.

#### FUNCTION

In combination with an armature tube, the function of a switching solenoid or of a proportional solenoid results. Solenoid coils in AC - construction have an integrated rectifier. All cable threaded joints certified for this explosion protection class with a protection class of at least IP65 can be used.

II 2 G Ex d IIC

II 2 D Ex tD A21 IP65



### APPLICATION

With the EC-type test certification, the solenoid coil is certified as a device of the category 2G and 2D and of the device group II. This signifies, that the coils are suitable for applications in zones with explosion-hazard gas-, steam-, vapour-, air- and dust mixtures of the zones 1/21 and 2/22.

Valves for explosion-hazard zones are utilised in:

- the shipping- and offshore industries
- the oil- and gas industries
- the chemical industry
- wood processing
- grain mills

#### CONTENT

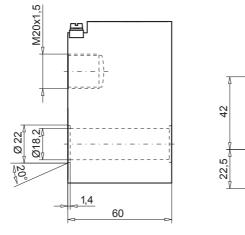
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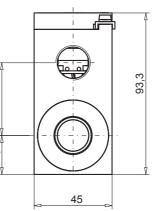
#### TYPE CODE

	МКҮ 45 / 18х60 - 🗌 - 🗌 # 🔄
Steel coil Mobile type	
Terminal box without cable	
Ex d – Execution	
Housing width 45 mm	
Coil internal diameter 18 mm	
Coil length 60 mm	
Standard nominal voltage12 VDC $\bigcirc$ range U_N:24 VAC $\bigcirc$	
Standard nominal power range P <sub>N</sub> : 9 W	L9 21 W L21

Design-Index (Subject to change)

#### DIMENSIONS





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Edition 10 09

# Solenoids



### CHARACTERISTICS

40 VDC

CHARACTERISTICS				12 VDC		
Coil winding isolation clas	ss H	Nominal power (W)	9	12	15	21
Protection class		Nominal resistance (Ω)	16,5	13,5	9,9	7,1
in acc. EN 60529	IP65/67, with corresponding cable gland	Recommended calculation	1600	2000	2'500	4'000
	and correct installation	voltage for fuse inserts (mA)				
Relative duty factor	100 % DF, combined with armature tube	Limiting current (mA)	610	720	960	1'230
	and valve	(Proportional function)				
Reference temperature	Execution L9:					
	-25+40 °C (operation as T1T6/T80 °C)			24 VDC		
	-25+90 °C (operation as T1T4/T130 °C)	Nominal power (W)	9	12	15	21
	Execution L15 / L12:	Nominal resistance (Ω)	64	49,2	38,5	27,5
	-25+70 °C (operation as T1T4/T130 °C)	Recommended calculation	800	800	1'250	2'000
	Execution L 21:	voltage for fuse inserts (mA)				
	-25+50°C (operation as T1T4/T130°C)	Limiting current (mA)	300	370	450	600
Housing	Steel housing, zinc-/nickel-coated	(Proportional function)				
Relative duty factor	max. 95% (not dew-forming)					
Corrosion protection	Salt spray test in accordance with	115 VAC				
	EN ISO 9227 > = 400 hours	Nominal power (W)	9	12	15	21
Maximum operating		Nominal resistance (Ω)	1'180	869	700	500
voltage	Nominal voltage +10 %	Recommended calculation	200	200	315	400
Nominal frequency	in acc. with name plate ±2%	voltage for fuse inserts (mA)				
Standard	$U_N = 12 \text{ VDC}$					
nominal voltages	$U_N = 24 \text{ VDC}$		2	30 VAC		
	$U_N = 115 \text{ VAC}$	Nominal power (W)	9	12	15	21
	$U_{N}^{2} = 230 \text{ VAC}$	Nominal resistance (Ω)	4'750	3'370	2'850	2'050
	Other nominal voltages in the ranges of	Recommended calculation	100	100	160	200
	12–230 VDC and 24–230 VAC on request	voltage for fuse inserts (mA)				
Standard	$P_N = 9 W$					
nominal powers	$P_{N} = 15 W$					
	$P_{N}^{''} = 21 W$					

### **OPERATION SECURITY**



The solenoid coil must only be put into operation, if the requirements of the operating instructions supplied are observed to their full extent.

In case of non-observance, no liability can be assumed.

A corresponding fuse in accordance with its design current has to be connected in series as short-circuit protection for every solenoid coil..

#### INSTALLATION

For stack assembly please observe the remarks in the operating instructions.

# ACCESSORIES

- The operating instructions incl. the EC declaration of conformity for solenoid coils of the type MKY45/18 x 60 is supplied in German, English and French (download under www.wandfluh.com)
- EC-type examination certificate: PTB 07 ATEX 1023 (download under www.wandfluh.com)
- EC-declaration of conformity (download under www.wandfluh.com)
- Recognition of production quality assurance PTB 07 ATEX Q006 (download under www.wandfluh.com)