

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

HIDROMA
SYSTEMS

UKŁADY HYDRAULICZNE

HYDROMA

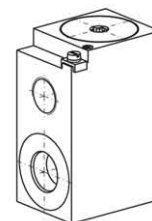
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

Solenoids

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



II 2 G Ex d IIC
II 2 D Ex tD A21 IP65



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.

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

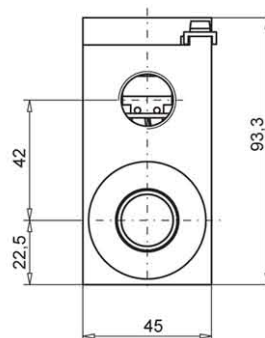
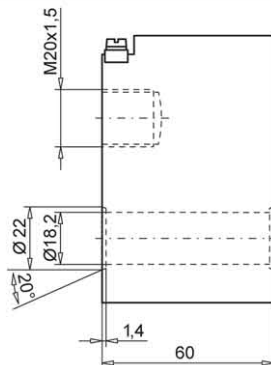
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TYPE CODE

	M	K	Y	45	/	18x60	-		-		#	
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 voltage	12 VDC	G 12	..	230 VDC	G 230							
range U_N :	24 VAC	R 24	..	230 VAC	R 230							
Standard nominal power range P_N :	9 W	L 9	..	21 W	L 21							
Design-Index (Subject to change)												

DIMENSIONS



Solenoids

CHARACTERISTICS

Coil winding isolation class	H
Protection class in acc. EN 60529	IP65/67, with corresponding cable gland and correct installation
Relative duty factor	100 % DF, combined with armature tube and valve
Reference temperature	Execution L9: -25...+40°C (operation as T1...T6/T80°C) -25...+90°C (operation as T1...T4/T130°C) Execution L15 / L12: -25...+70°C (operation as T1...T4/T130°C) Execution L21: -25...+50°C (operation as T1...T4/T130°C)
Housing	Steel housing, zinc-/nickel-coated
Relative duty factor	max. 95 % (not dew-forming)
Corrosion protection	Salt spray test in accordance with EN ISO 9227 > = 400 hours
Maximum operating voltage	Nominal voltage +10 %
Nominal frequency	in acc. with name plate $\pm 2\%$
Standard nominal voltages	$U_N = 12\text{ VDC}$ $U_N = 24\text{ VDC}$ $U_N = 115\text{ VAC}$ $U_N = 230\text{ VAC}$ Other nominal voltages in the ranges of 12–230 VDC and 24–230 VAC on request
Standard nominal powers	$P_N = 9\text{ W}$ $P_N = 15\text{ W}$ $P_N = 21\text{ W}$

	12 VDC			
Nominal power (W)	9	12	15	21
Nominal resistance (Ω)	16,5	13,5	9,9	7,1
Recommended calculation voltage for fuse inserts (mA)	1600	2000	2'500	4'000
Limiting current (mA) (Proportional function)	610	720	960	1'230

	24 VDC			
Nominal power (W)	9	12	15	21
Nominal resistance (Ω)	64	49,2	38,5	27,5
Recommended calculation voltage for fuse inserts (mA)	800	800	1'250	2'000
Limiting current (mA) (Proportional function)	300	370	450	600

	115 VAC			
Nominal power (W)	9	12	15	21
Nominal resistance (Ω)	1'180	869	700	500
Recommended calculation voltage for fuse inserts (mA)	200	200	315	400

	230 VAC			
Nominal power (W)	9	12	15	21
Nominal resistance (Ω)	4'750	3'370	2'850	2'050
Recommended calculation voltage for fuse inserts (mA)	100	100	160	200

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)