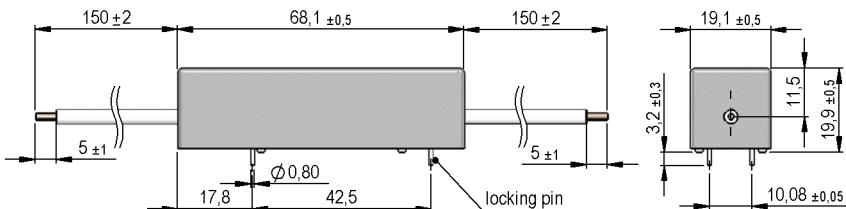


**Dimensions mm[inch]**

 tolerances acc. to DIN ISO 2768-m  
Toleranzen gem. DIN ISO 2768-m



**Isometric**

Scale 1:2  
Maßstab 1:2

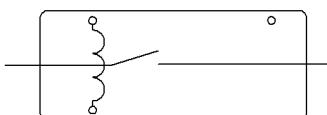


**Cable**

silicone high voltage wire AWG20  
UL-Style 3239,  
colour white  
Hochspannung Silikonlitze AWG20  
UL-Style 3239  
Farbe weiss

**Layout**

Top view  
Draufsicht



**Marking**

according to EN60062/factory code  
gem. EN60062/Fertigungsstätte



<b>Coil Data at 20 °C</b>	<b>Conditions</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
Coil resistance		135	150	165	Ohm
Coil voltage			12		VDC
Rated power			960		mW
Thermal resistance	max. Relay temperature = operating temperature + self heating		24		K/W
Pull-In voltage				9	VDC
Drop-Out voltage		1			VDC

<b>Contact data 69</b>	<b>Conditions</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
Contact rating	Any DC combination of V & A not to exceed their individual max.'s			50	W
Switching voltage	DC or Peak AC			10.000	V
Switching current	DC or Peak AC			3	A
Carry current	DC or Peak AC			5	A
Contact resistance static	Measured with 40% overdrive Start Value			150	mOhm
Insulation resistance	RH <45 %, 100 V test voltage	10			TOhm
Breakdown voltage	according to EN 60255-5	15			kV DC
Operate time incl. bounce	measured with 40% overdrive			3	ms
Release time	measured with no coil excitation			1,5	ms
Capacitance	@ 10 kHz across open switch		0,8		pF

<b>Special Product Data</b>	<b>Conditions</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
Number of contacts			1		
Contact - form			A - NO		
Dielectric Strength Coil/Contact	according to EN 60255-5	15			kV DC
Insulation resistance Coil/Contact	RH <45%, 200 VDC test voltage	10			TOhm
Case colour			gray		
Housing material			UL94-HB File-No. E45329 (M); Lexan 141R / GE		
Sealing compound			UL94-V2 File-No E72640 (M) PU E8702 FW-Z/Herberts		
Mounting or coil material			UL94-V-0 File No. QMFZ-2. E42337; CELANEX PBT		
Connection pins			Copper alloy tin plated		
Magnetic Shield			no		
Reach / RoHS conformity			yes		



Products for  
tomorrow...

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USA: +1 / 508 295 0771 | Email: salesusa@meder.com

Asia: +852 / 2955 1682 | Email: salesasia@meder.com

Item No.:

**8412169158**

Item:

**HM12-1A69-150-UL**

Environmental data	Conditions	Min	Typ	Max	Unit
Shock	1/2 sine wave duration 11ms			50	g
Vibration	from 10 - 2000 Hz			20	g
Operating temperature		-20		70	°C
Storage temperature		-35		105	°C
Soldering temperature	wave soldering max. 5 sec.			260	°C
Washability				fully sealed	

General data	Conditions	Min	Typ	Max	Unit
Total weight			45		g
Packaging			carton box, 10 pcs./each		

Modifications in the sense of technical progress are reserved

Designed at: 05.07.05 Designed by: WKOVACS

Approval at: 27.01.09 Approval by: KOLBRICH

Last Change at: 14.05.12 Last Change by: WKOVACS

Approval at: 14.05.12 Approval by: CRUF

Version: 05