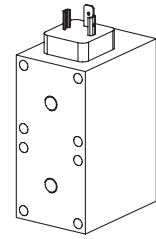


**Solenoid SIN45DV-...-M40  
 to VDE 0580  
 Plug plate to ISO 4400/DIN 43650  
 Protection class IP65**

**DESCRIPTION**

The SIN45DV-M40 is a switching solenoid. Its design corresponds to VDE standard 0580. The steel housing has a zinc coated finish as standard. Static pressure-tightness is 160 bars. All o-rings are Viton. The solenoids are fixed to the valve with eight screws. The solenoid will be supplied with a plug screw as standard, or depending on the intended use, with integrated manual override. The connector plate corresponds to ISO 4400 and DIN 43650.

**FUNCTION**

When the solenoid is energised with the specified nominal voltage, the armature moves from the starting position of its stroke ( $s=5,5$  mm) to the end position ( $s=0$  mm). The switching time is essentially dependent on the application. The power-stroke characteristics are designed to suit the requirements of hydraulic valves. AC versions include an electronic rectifier integrated into the connector plate. In this way maximum performance is assured.

**APPLICATION**

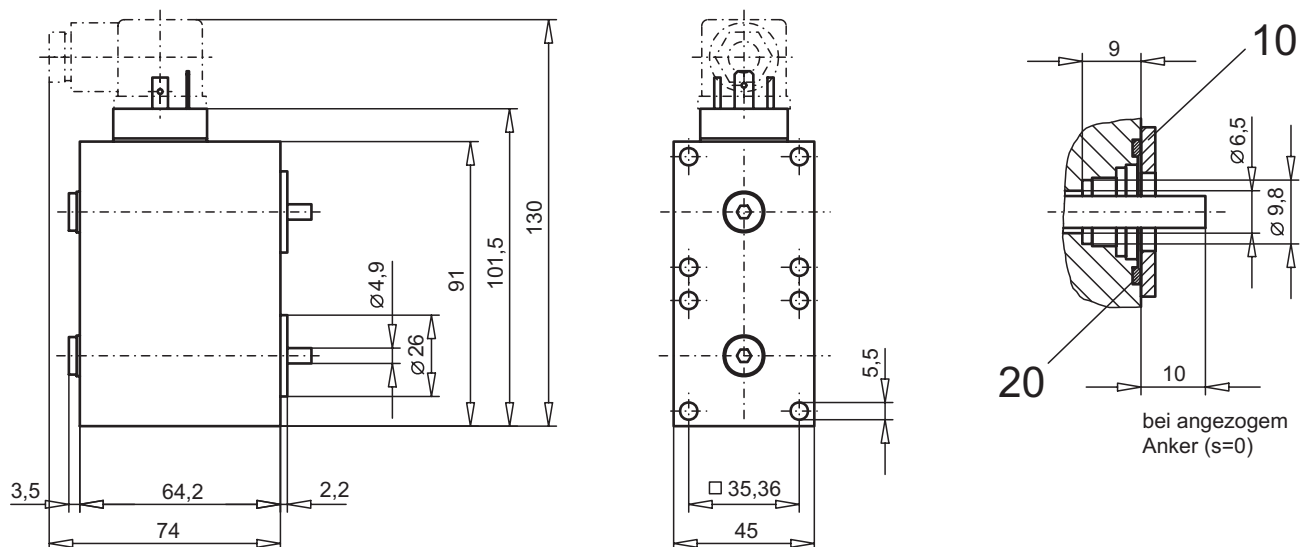
Essential for hydraulic poppet valves. Because of the risk of overheating, the solenoid must never be used separately. The length of the fixing screws depends on the base material of the body. An o-ring is used for the valve seal. Information on screws and o-rings will be found in the data sheets relating to the valves concerned. Before changing the plug screw or the screw with integrated manual override, care must be taken to ensure that the solenoid is not under pressure. Risk of injury! The maximum operating pressure is determined by the valve actually used.

**CONTENTS**

DIMENSIONS .....	1
CHARACTERISTICS .....	2
PERFORMANCES .....	2
ACCESSOIRES .....	2
PARTS LIST .....	2

**TYPE CODE**

	SI N 45D V - <input type="text"/> - M40 - <input type="text"/> # <input type="text"/>																					
Solenoid industry version	<input type="checkbox"/>																					
Normaly	<input type="checkbox"/>																					
Double coil solenoid corr. □ 45mm housing	<input type="checkbox"/>																					
Solenoid completely potted	<input type="checkbox"/>																					
Standard-nominal voltage $U_N$	<table border="0" style="display: inline-table;"> <tr> <td>12 VDC</td> <td><input type="checkbox"/></td> <td>G12</td> <td>110 VAC</td> <td><input type="checkbox"/></td> <td>R110</td> <td>*</td> </tr> <tr> <td>24 VDC</td> <td><input type="checkbox"/></td> <td>G24</td> <td>115 VAC</td> <td><input type="checkbox"/></td> <td>R115</td> <td>*</td> </tr> <tr> <td></td> <td></td> <td></td> <td>230 VAC</td> <td><input type="checkbox"/></td> <td>R230</td> <td>*</td> </tr> </table>	12 VDC	<input type="checkbox"/>	G12	110 VAC	<input type="checkbox"/>	R110	*	24 VDC	<input type="checkbox"/>	G24	115 VAC	<input type="checkbox"/>	R115	*				230 VAC	<input type="checkbox"/>	R230	*
12 VDC	<input type="checkbox"/>	G12	110 VAC	<input type="checkbox"/>	R110	*																
24 VDC	<input type="checkbox"/>	G24	115 VAC	<input type="checkbox"/>	R115	*																
			230 VAC	<input type="checkbox"/>	R230	*																
AC = 50 to 60 Hz	<input type="checkbox"/>																					
* Rectifier integrated in the plug plate																						
Other nominal voltages and nominal performances on request																						
Additional marking for special sealing to valve																						
with mounted plug (data sheet 1.1-300)	<input type="checkbox"/> HB0																					
with mounted manual override (data sheet 1.1-300)	<input type="checkbox"/> HB6																					
with mounted special manual override (data sheet 1.1-310)	<input type="checkbox"/> H...																					
Design-Index (Subject to change)																						

**DIMENSIONS**


**CHARACTERISTICS**

Static pressure tightness	160 bar (seal diameter of valve max. 26 mm)
Coil winding insulation class	F
Connection/Power supply	Over device plug connection to ISO 4400/DIN 43650, (2P+E), other connections on request.
Protection class EN 60529	IP65
Relative duty factor	100%
Reference temperature	50°C
Seal	Viton, other on request
Fluid	Mineral oil, other fluid on request
Switching cycles	15'000/h
Mounting screws	8xM5 (Quality 8.8)
Housing	Zinc coated steel housing, other surface treatments on request.

		DC	AC
Totale stroke	(mm)	5,5	5,5
Working stroke	(mm)	2,5	2,5
Nominal power	(W)	60	
	(VA)		70
Armature weight	(kg)	0,055	0,055
Solenoid weight	(kg)	1,650	1,650
Voltage range	(VDC)	10-250	
	(VAC)		80-250 *

\* For AC voltages below 80 VAC DC solenoids plus rectifier plugs are available.

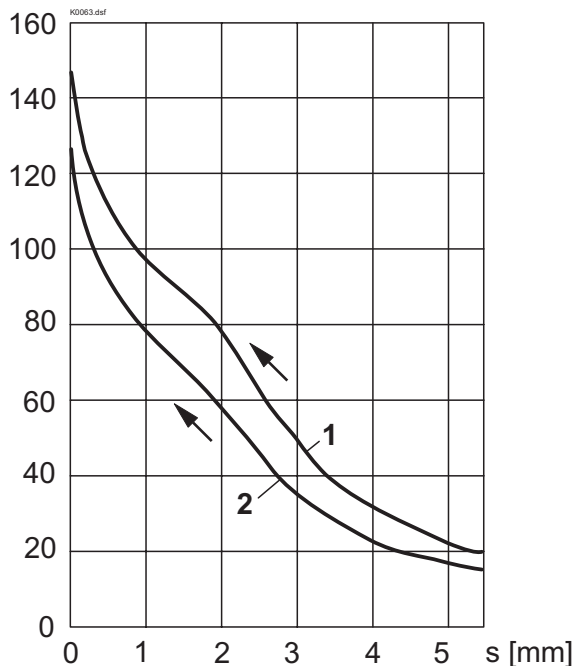
21 VDC	to	24 VAC
32 VDC	to	36 VAC
36 VDC	to	42 VAC
42 VDC	to	48 VAC

	12VDC	24VDC	115VAC	230VAC
Nominal resistance (Ω)	5	21,8	445	1'400
Number of windings (-)	770	1'560	7'000	13'000
Inductivity (mH)	9	36		

**PERFORMANCES**

F = f (s) Force-stroke characteristics  
 (Valid for single coil)

F [N]



1: U = 100 % U<sub>N</sub> Reference temperature = 20°C (30W)  
 2: U = 90 % U<sub>N</sub> Reference temperature = 50°C  
 Solenoid in operating temperature (19W)

The values refer to U<sub>N</sub> = 24 VDC.

With other nominal voltages deviations can occur.

For curve 2 the solenoids has been mounted on a body 46x92x64.

**ACCESSOIRES**

Plug HB0	* Article No. 239.2033
Plug with integrated manual override HB6	* Article No. 253.8001 * acc. data sheet 1.1-300
Special manual override see data sheet	1.1-310
Plug grey	Article No. 219.2001
Plug black	Article No. 219.2002
Rectifier plug grey	Article No. 219.2105
Rectifier plug black	Article No. 219.2106

**PARTS LIST**

Position	Article	Description
10	212.0506	Washer
20	160.6188	O-ring ID 18,77x1,78

Technical explanation see data sheet 1.1-400E