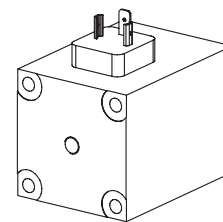


**Solenoid SIN60V
 to VDE 0580
 Plug plate to ISO 4400/DIN 43650
 Protection class IP65**

DESCRIPTION

The SIN60V is a switching solenoid. Its design corresponds to VDE standard 0580. The steel housing is zinc coated as a standard. Static pressure-tightness is 160 bars. All o-rings are Viton. The solenoids are fixed to the valve with four screws. Depending on the intended use, the solenoid can be supplied with a plug screw, or 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 ($s=8,5$ mm) to the end position ($s=0$ mm). The switching time is essentially dependent on the application. The power-stroke characteristics are de-signed 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

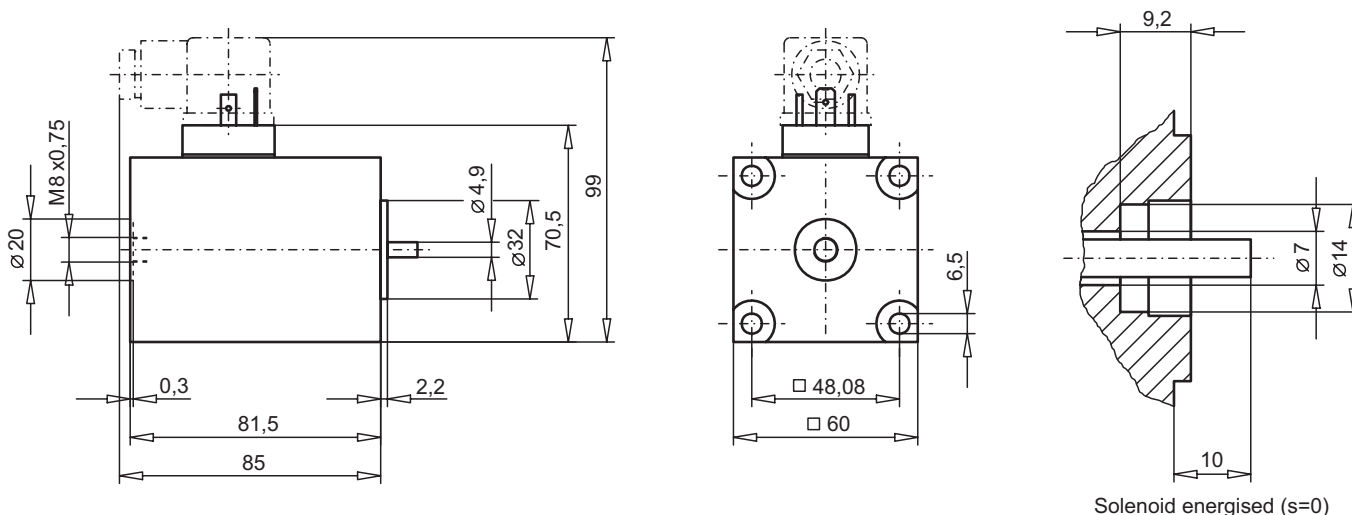
Essential for hydraulic directional and poppet valves. Because of the risk of overheating, the solenoid must never be used separately. The length of the fixing screws depends on the base material of the body. An o-ring is used for the valve seal. Information on screws and o-rings will be found in the 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
PERFORMANCE	2
ACCESSOIRES	2

TYPE CODE

Solenoid	S I N 60 V -	-	-	#	□
Industry version					
Normally					
Square 60 mm housing					
Solenoid completely potted					
Standard-Nominal voltage U_N	12 VDC	G12			
	24 VDC	G24			
	110 VAC	R110	*		
	115 VAC	R115	*		
	230 VAC	R230	*		
AC= 50 to 60 Hz					
* Rectifier integrated in the plug					
Other nominal voltages and nominal power on request					
with mounted plug (data sheet 1.1-300)					HB0
with mounted manual override (data sheet 1.1-300)					HB8,5
with mounted special manual override (data sheet 1.1-310)					H...
Design-Index (Subject to change)					

DIMENSIONS


CHARACTERISTICS

Static pressure tightness	160 bar (seal diameter of valve max. 32 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	4xM6 (Quality 8.8)
Housing	Zinc coated steel housing, other surface treatments on request.

		DC	AC
Totale stroke	(mm)	8,5	8,5
Working stroke	(mm)	4	4
Nominal power	(W)	40	
	(VA)		46
Armature weight	(kg)	0,124	0,124
Solenoid weight	(kg)	1,90	1,90
Voltage range	(VDC)	10-250	
	(VAC)		50-250*

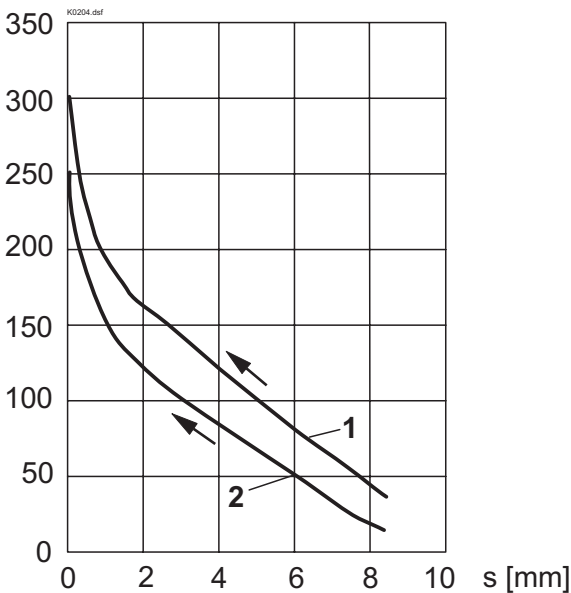
* For AC voltages below 50 VAC DC solenoids plus rectifier plugs are available.
 21 VDC to 24 VAC
 32 VDC to 36 VAC
 36 VDC to 42 VAC
 42 VDC to 48 VAC

	12VDC	24VDC	115VAC	230VAC
Nominal resistance (Ω)	4	16,5	260	920
Number of windings (-)	780	1'580	5'710	11'200
Inductivity (mH)	19	75	-	-

PERFORMANCE

F = f (s) Force-stroke characteristics

F [N]



1: U = 100 % U_N Reference temperature = 20°C (40W)
 2: U = 90 % U_N Reference temperature = 50°C
 Solenoid in operating temperature (25W)

The values refer to U_N = 24 VDC.
 With other nominal voltages deviations can occur.
 For curve 2 the solenoid has been mounted on a body □ 62x93.

ACCESSOIRES

Plug HB0	* Article No. 239.2033
Plug with integrated manual override HB8,5	* Article No. 253.8002
	* 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

Technical explanation see data sheet 1.1-400E