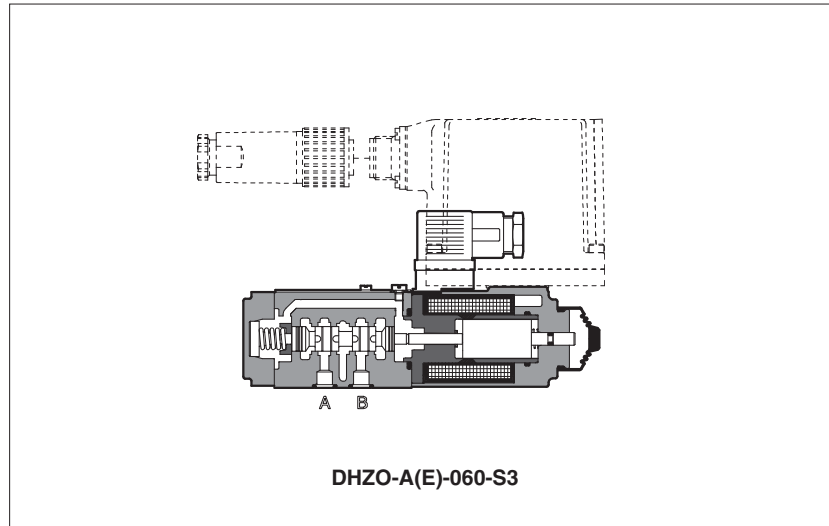


Proportional directional valve type DHZO-A(E)-060-S3

single solenoid, without position transducer, 3 position

Available only on request



DHZO-A-060 is a direct operated proportional valve, without position transducer, which provides both directional and not compensated flow control according the electronic reference signal.

Technical characteristics:

It is derived from standard DHZO execution, but with single solenoid and 3 position progressive spool with zero overlap in the intermediate configuration. This feature makes the valve suitable for cost effective closed loop position controls.

It is available in different executions:

-A, without position transducer

-AE, as -A plus integral electronics

Applications:

Mobile machines, sky-lifts.

Mounting surface: **ISO 4401, size 06**

Max flow: **28 l/min** at Δp 30 bar

Max pressure: **350 bar**

1 MODEL CODE

DHZO	-	A	-	0	6	0	/	S	3	/	B	/	*	**	/	PE
Proportional directional valve ISO 4401 size 6																Seals material:
A = without integral electronic																- = NBR
AE = with integral electronic																PE = FKM
Valve size																Series number
0 = ISO 4401 size 06																
Configuration, see section 3																
6 = central position, spring centered																
Spool overlapping: 0 = zero overlapping																
Spool type (regulating characteristics): S = progressive																
Spool size: 3																
Only for -A execution: - = standard coil for 24V _{DC} Atos drivers 6 = optional coil for 12V _{DC} Atos drivers 18 = optional coil for low current drivers																
Hydraulic options: B = solenoid and integral electronics at side of port A Y = external drain Options for -A execution: N = manual micrometric adjustment NV = as N plus handwheel and graduated scale Electronics options for -AE execution (1): I = current reference input (4÷20 mA) Q = enable signal																

(1) For electric connection and option description of integral electronics -AE, see KT catalog, tab G110

2 HYDRAULIC CHARACTERISTICS (based on mineral oil ISO VG 46 at 50 °C)

Hydraulic symbols			DHZO-A(E)-060-S3
Valve model			
Pressure limits [bar]	Port P, A, B = 350, T = 160/250		
Spool	S3		
Max flow [l/min]	28 43 72 (200)		
at Δp 30 bar			
at Δp 70 bar			
at Δp max (...) bar			
Response time [msec]	<30		
Hysteresis [%]	5		
Repeatability [%]	±1		

3 ELECTRONIC DRIVERS FOR DHZO-A*

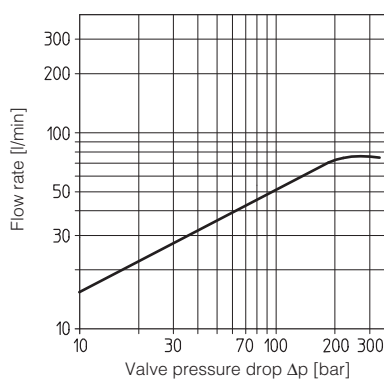
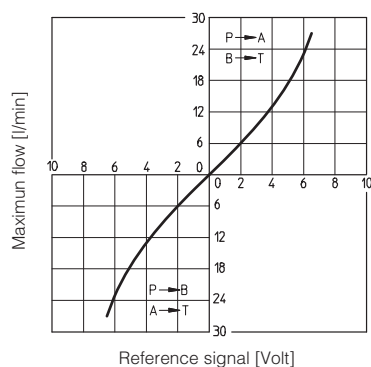
Valve model	-A						-AE
Drivers model	E-MI-AC-0°F	E-MI-AS-IR	E-BM-AC-0°F	E-BM-AS-PS	E-ME-AC-0°F	E-RP-AC-0°F	E-RI-AE
Data sheet	G010	G020	G025	G030	G035	G100	G110

4 MAIN CHARACTERISTICS OF DHZO-A*-060-S3

Assembly position	Any position
Subplate surface finishing	Roughness index Ra 0,4 - flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C ÷ +70°C for -A execution; -20°C ÷ +60°C for -AE execution
Fluid	Hydraulic oil as per DIN 51524 ... 535 for other fluids see section [1]
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15÷100)
Fluid contamination class	ISO 4406 class 20/18/15 NAS 1638 class 9, in line filters of 10 µm (β ₁₀ ≥75 recommended)
Fluid temperature	-20°C +60°C (standard seals) -20°C +80°C (/PE seals)
Coil resistance R at 20°C	3 ÷ 3,3 Ω for standard 12 V _{DC} coil; 2 ÷ 2,2 Ω for 6 V _{DC} coil; 13 ÷ 13,4 Ω for 18 V _{DC} coil
Max solenoid current	2,6 A for standard 12 V _{DC} coil; 3,25 A for 6 V _{DC} coil; 1,5 A for 18 V _{DC} coil
Max power	40 Watt
Protection degree (CEI EN-60529)	IP65 for -A execution; IP67 for -AE execution, (see sect. [7])
Duty factor	Continuous rating (ED=100%)

5 DIAGRAMS (based on mineral oil ISO VG 46 at 50 °C)

Regulation diagram (Δp= 30bar)



6 INSTALLATION DIMENSIONS FOR DHZO [mm]

ISO 4401: 2005

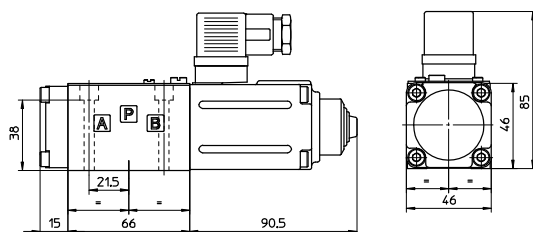
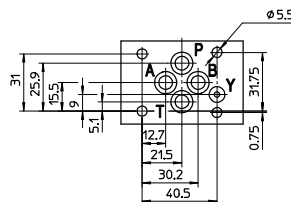
Mounting surface: 4401-03-02-0-05 (see KT table P005)

Fastening bolts: 4 socket head screws M5x50 class 12.9

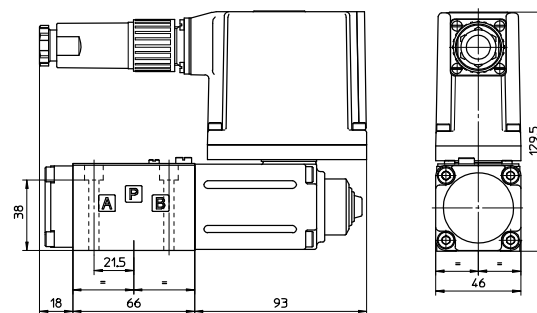
Tightening torque = 8 Nm

Seals: 4 OR 108;

Diameter of ports A, B, P, T: Ø 7,5 mm (max)



DHZO-A-060-S3



DHZO-AE-060-S3

7 MODEL CODES OF POWER SUPPLY CONNECTORS (to be ordered separately)

VALVE VERSION	-A	-AE	
CONNECTOR CODE	666	ZH-7P	ZM-7P
PROTECTION DEGREE	IP65	IP67	IP67
DATA SHEET	K500	G110, K500	

 connectors supplied with the valve