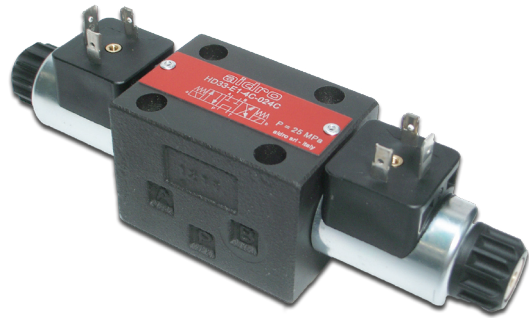


ISO 03 HYDRAULIC VALVES type HD33-EF DIRECTIONAL CONTROL - SOLENOID OPERATED

- 4-way solenoid operated directional valves
- ISO 03 interface, light execution
- Oil immersed solenoids for DC current
- Emergency pin for manual override
- Maximum flow rate: 40 l/min
- Maximum pressure (port P-A-B): 250 bar
- Maximum pressure (port T): 160 bar
- 100% duty cycle
- Suitable for mineral oil according to ISO 18/16/14 filtration class or better.
Recommended viscosity range: 10 to 60cSt



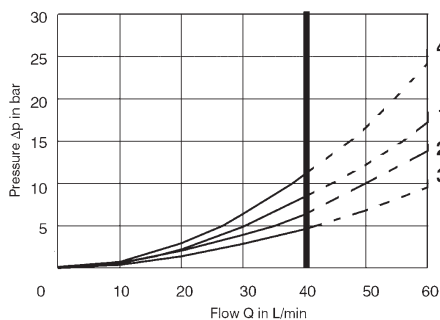
SPOOL TYPE**	
0	
1	
3	
4	

DRIVE ARRANGEMENT	
C	
LL	
ML	

ORDERING CODE	
HD33 – EF – 3 C – *	
HD33	ISO 03 4-way directional control valve
EF	Electrically controlled
3	Spool type (see table)
C	Drive arrangement (see table)
*	b: only for versions LL, ML, LM solenoid "b"
B01 – *	
B01	Coil for HD33-EF valves (plugs according to ISO 4400) Admissible voltage variation: -10% +5%
012C	12V DC – 1,83A
024C	24V DC – 0,92A

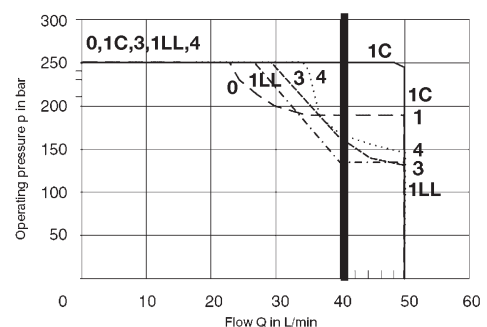
TYPICAL DIAGRAMS

Typical $\Delta p-Q$ curves for valves HD33-EF in standard configuration, with mineral oil at 36cSt and 50°C for flow P→A,B, A,B→T and P→T



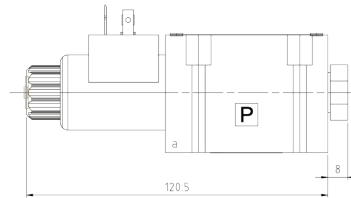
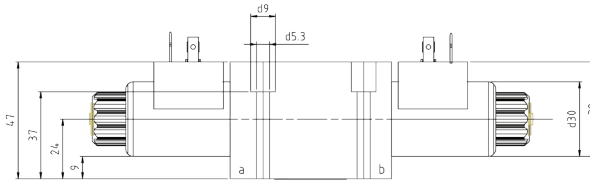
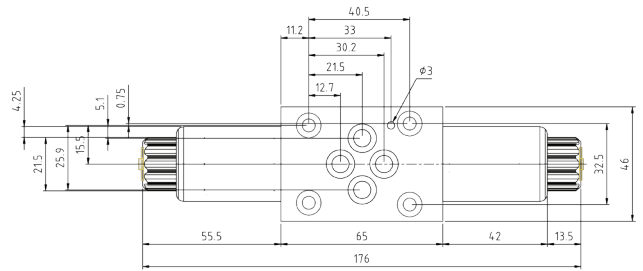
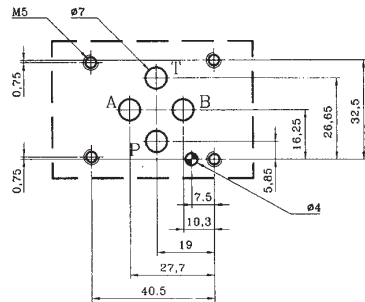
3) Spool 1LL P→A,B and spool 0 A,B→T 2) Spools 0,1,3 P→A,B and spool 1 A,B→T
4) Spool 4 P→A,B and A,B→T

Typical $p-Q$ curves of operating limits for maximum hydraulic power transferred by valves HD33-EF



Input voltage 5% less than nominal rate

ISO 03 Interface



Fixing bolts: n.4 M5 x 45 (not included) – Tightening torque 8Nm
Valve mass: 1,25kg (with 1 coil) – 1,10 kg (with 2 coils)

Subject to technical and dimensional changes without notice

1	Body	6-7	ISO 4400 plugs (not included)
2-3	Coils	8	Ring nut
4	Spring	9	Emergency pin
5	Spool		

