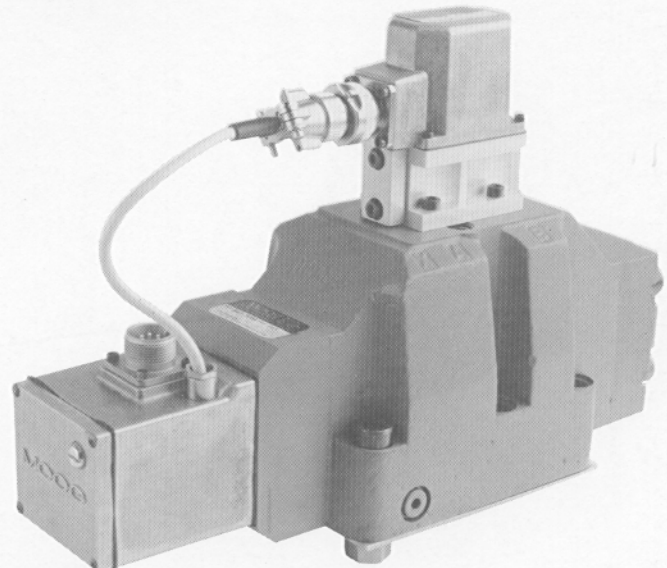


D643 Series Proportional Valves with Integrated Electronics

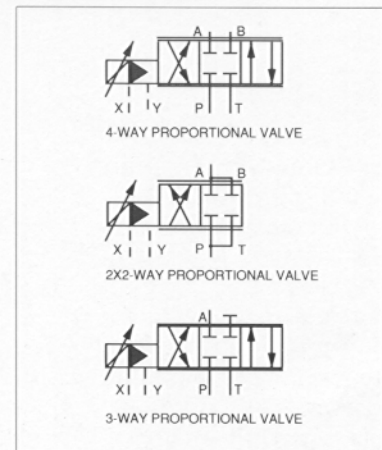
Rated flow 300 l/min ($\Delta p_N = 10$ bar)
Operating pressure up to 350 bar

Mounting pattern to DIN 24340
Form A 25 (ISO 4401-AE-08-4-A)



Port size	[mm]	dia 26		
Valve body design		5 chamber version		
Rated flow ($\pm 10\%$) at 10 bar valve pressure drop	[l/min]	300	300	300
Valve version		2-stage	2-stage	3-stage
Spool configuration		Standard	with stub shafts	Standard
Pilot valve:		D061	D061	D076
Main spool stroke	[mm]	± 5	± 5	± 5
Main spool drive area	[cm ²]	7.9	2	7.9
Response time for 0 to 100 % stroke*	[ms]	170	45	18
Threshold*	[%]	< 0.25	< 0.4	< 0.3
Hysteresis*	[%]	< 1	< 1.5	< 1
Null shift for $\Delta T = 55^\circ \text{C}$	[%]	< 1.5	< 1.5	< 2
Null flow* max. (axis cut version)	[l/min]	4.5	4.5	4.0
Pilot valve oil flow at 100 % step input*	[l/min]	3	3	20
Mass	[kg]	17	17	17.5

*For 140 bar pilot pressure or operating pressure



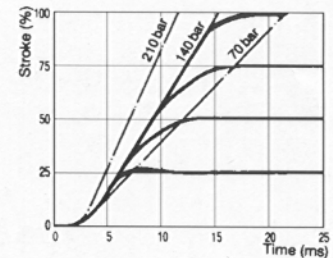
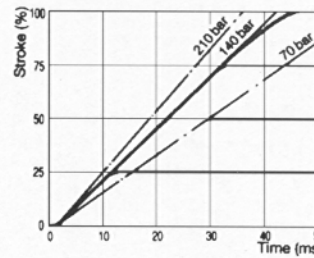
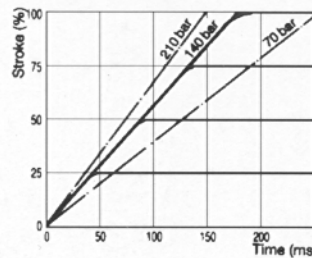
Typical characteristics

with pilot valve D061-601

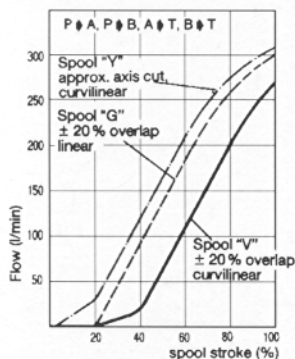
with pilot valve D061-601
and stub shafts

with pilot valve D076-039

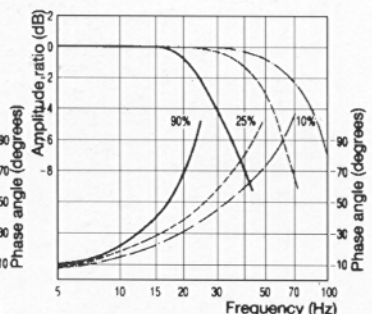
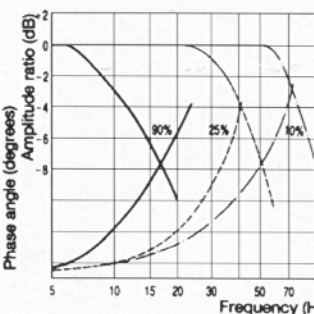
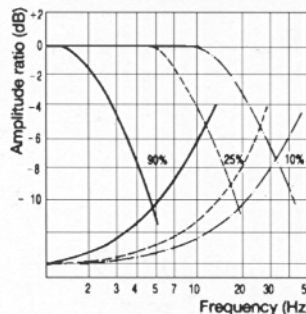
Step response



Flow characteristic at $\Delta p = 5$ bar per metering land



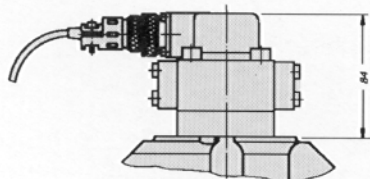
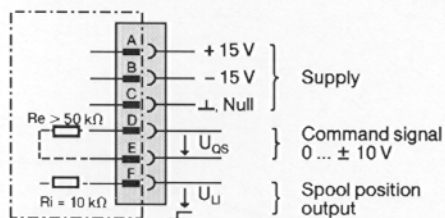
Frequency Response at 140 bar pilot pressure or operating pressure.



Electrical connection

Valves with voltage command

Standard



Version with
Series D076
Pilot valve

Accessories:

Flushing Block: PN A72017-1

Mating Electrical Connector:

PN 49054F14S6S (MS3106F14S-6S)

Suggested Mounting Bolts:

PN A31324-436B

.437-14 UNC x 2.25 long

Socket Head Cap Screw

Subplate: PN A55694-1

Replaceable Filter Element:

for pilot valve D061: PN B40414-1

for pilot valve D076: PN 14417-1

System filters available. Call factory for details or see brochure #605.

Notes:

P, T, A, & B Port O-Ring Size:

0.139 [3.53] sect. x 1.109 [28.17] I.D.

(universal size - 216)

X and Y Port O-Ring Size:

0.139 [3.53] sect. x 0.734 [18.39] I.D.

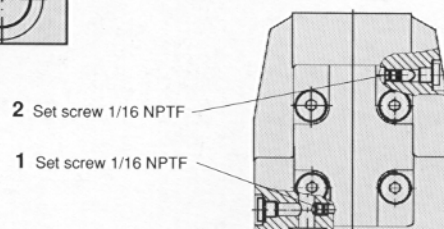
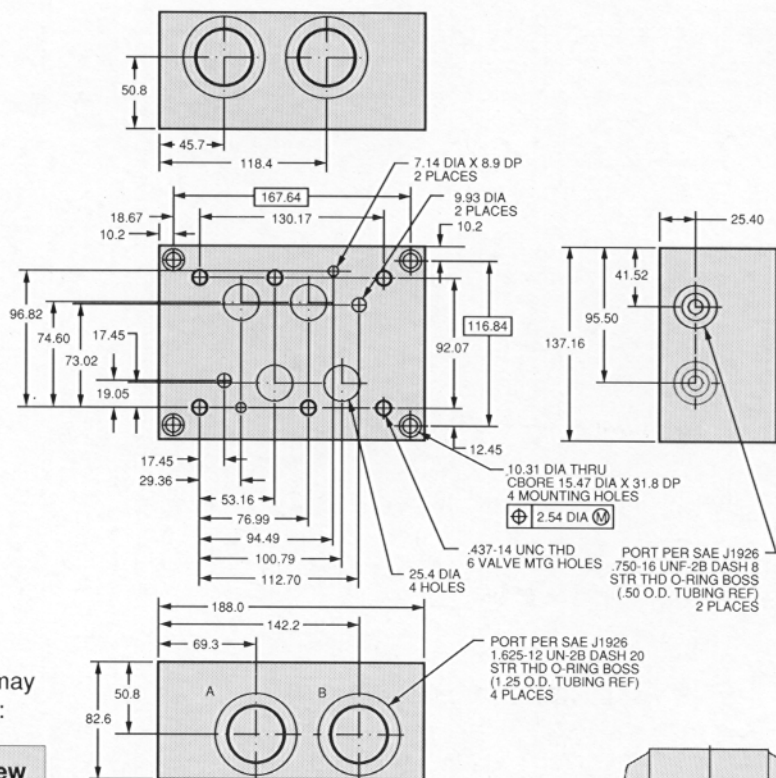
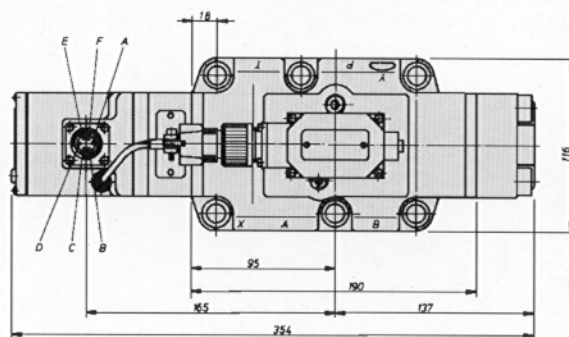
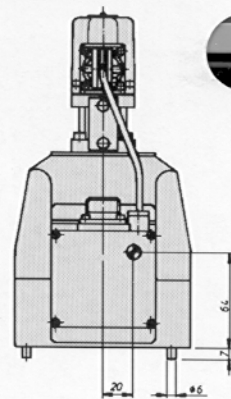
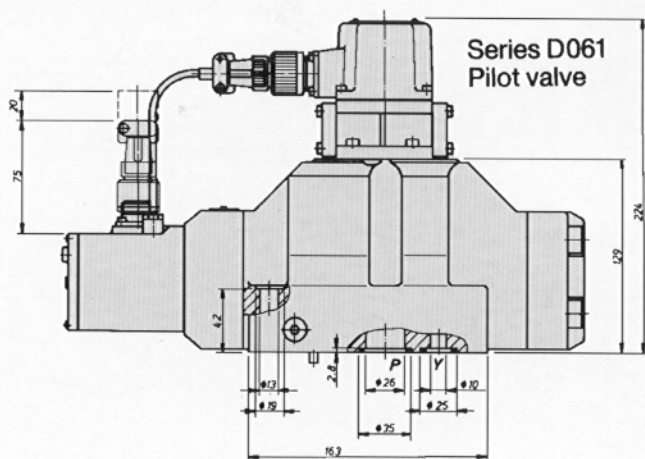
(universal size - 210)

Null Adjust: Flow out of port A will increase with clockwise rotation of null adjust potentiometer (4-turn potentiometer under screw plug).

Conversion Instructions for main stage

The supply and return connections to the pilot valve may be either internally or externally connected as follows:

Pilot supply via	Set screw location 1	Pilot return via	Set screw location 2
internal P	open	internal T	open
external X	closed	external Y	closed



Moog
CONTROLS