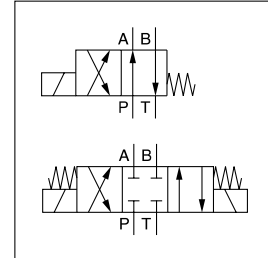
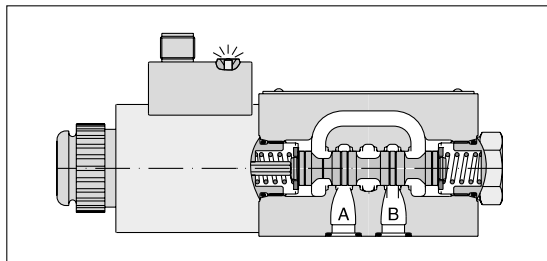
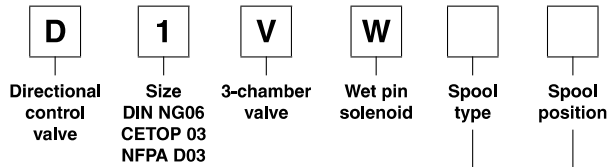


The D1VW 8 Watt series is based on the standard D1VW design. The low watt, low current (<0.5 A) solenoid allows direct connection to a PLC or a bus knot. The valves are offered with standard solenoid connection (as per EN175301-803) and M12 x 1 connection. The version with M12 x 1 connection and LEDs is conform to the DESINA standard (DistributEd and Standardised INstAllation technology) for machine tools and manufacturing systems.


**2**

**Technical data**

General	
Design	Directional spool valve
Actuation	Solenoid
Size	DIN NG06 / CETOP 03 / NFPA D03
Mounting interface	DIN 24340 A6 / ISO 4401 / CETOP RP 121-H / NFPA D03
Mounting position	unrestricted, preferably horizontal
Ambient temperature	[°C] -25...+60
MTTF <sub>D</sub> value	[years] 150
Weight	[kg] 1.5 (1 solenoid), 2.1 (2 solenoids)
Vibration resistance	[g] 10 Sinus 5...2000 Hz acc. IEC 68-2-6 30 Random noise 20...2000 Hz acc. IEC 68-2-36 15 Shock acc. IEC 68-2-27
Hydraulic	
Max. operating pressure	[bar] P, A B: 350, T: 210
Fluid	Hydraulic oil according to DIN 51524
Fluid temperature	[°C] -20 ... +70 (NBR: -25...+70)
Viscosity permitted	[cSt] / [mm <sup>2</sup> /s] 2.8...400
Viscosity recommended	[cSt] / [mm <sup>2</sup> /s] 30...80
Filtration	ISO 4406 (1999); 18/16/13
Flow max.	[l/min] 60 (see shift limits)
Leakage at 50 bar	[ml/min] Up to 10 per flow path, depending on spool
Static / Dynamic	
Step response at 95 %	[ms] Energized: 80...120; De-energized: 35...55
Electrical characteristics	
Duty ratio	100 % ED; CAUTION: coil temperature up to 70 °C possible
Max. switching frequency	[1/h] 10000
Protection class	IP65 in acc. with EN 60529, M12x1 IP67 (each with correctly mounted plug-in connector)
	Code J
Supply voltage	[V] 24 V =
Tolerance supply voltage	[%] ±10
Current consumption	[A] 0.33
Power consumption	[W] 8
Solenoid connection	Connector as per EN 175301-803, solenoid identification as per ISO 9461 (code W). Plug M12x1 on coil as per IEC 61076-2-101 (code D).
Wiring min.	[mm <sup>2</sup> ] 3 x 1.5 recommended
Wiring length max.	[m] 50 recommended

With electrical connections the protective conductor (PE ⊥) must be connected according to the relevant regulations.

**2**


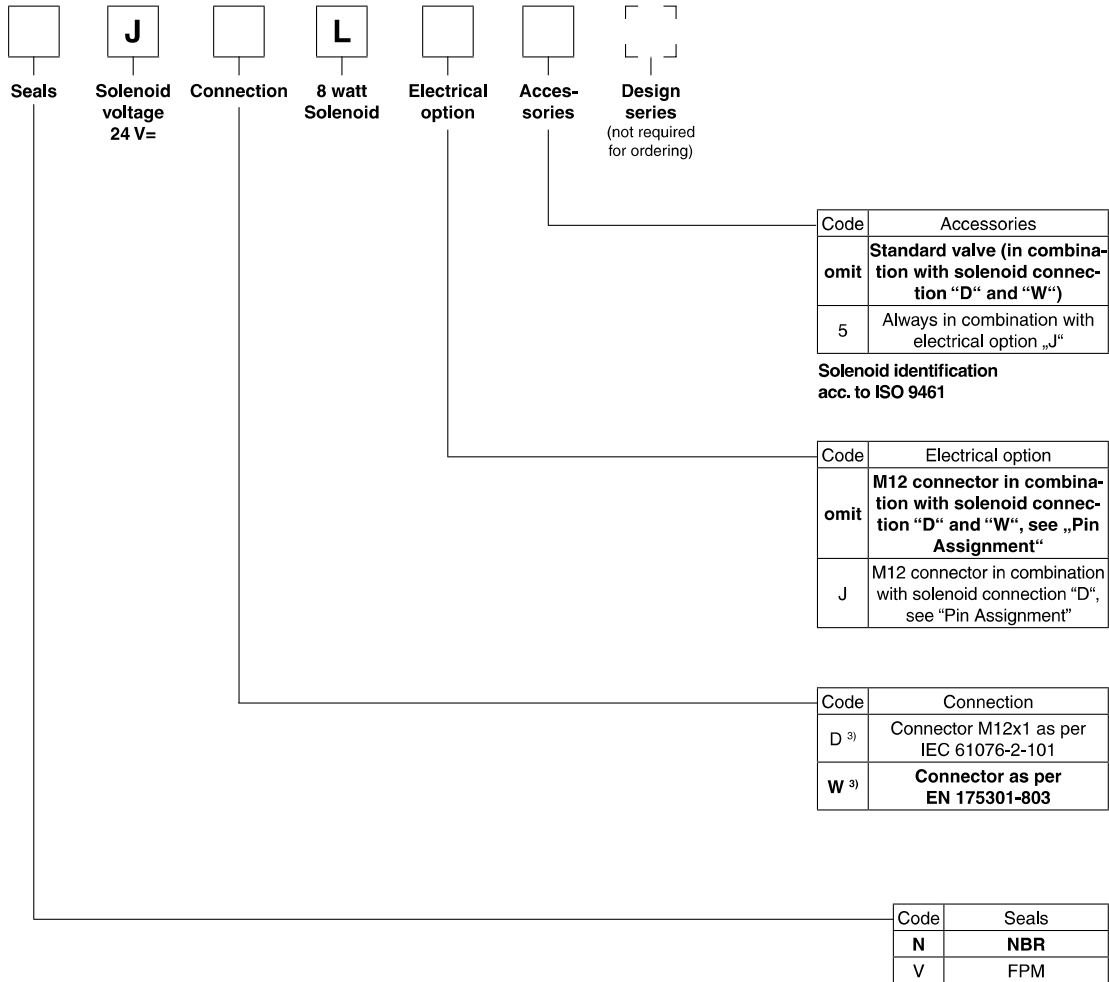
3 position spools	
Code	Spool type
	a 0 b
001	
002	
003	
004	
005	
006	
007	
008 <sup>1)</sup>	
009 <sup>1)</sup>	
010	
011	
014	
015	
016	
081	
082	
102	

2 position spools	
Code	Spool type
	a b
020	
026	
030	
101	

3 position spools		
Code	Spool position	
<b>C</b>		<b>3 positions.</b> Spring offset in position "0". Operated in position "a" or "b".
	Standard	Spool type 008, 009
<b>E</b>		2 positions. Spring offset in position "0".
	Operated in position "a".	Operated in position "b".
<b>K</b>		2 positions. Spring offset in position "0".
	Operated in position "b".	Operated in position "a".

2 position spools		
Code	Spool position	
<b>B</b>		<b>2 positions.</b> Spring offset in position "b". Operated in position "a".
<b>D <sup>2)</sup></b>		<b>2 positions.</b> Operated in position "a" or "b". No center or offset position.
<b>H</b>		<b>2 positions.</b> Spring offset in position "a". Operated in position "b".

<sup>1)</sup> Consider specific spool position.  
<sup>2)</sup> Only for spool 020 available.  
<sup>3)</sup> Please order plug separately.

Catalogue MSG11-3500/UK  
**Ordering Code**
**Directional Control Valve**  
**Series D1VW 8 Watt**

**2**

**Bold letters =**  
Short-term availability

Further spool types on request.  
 To get a DESINA valve, order the combination: JDLJ5.

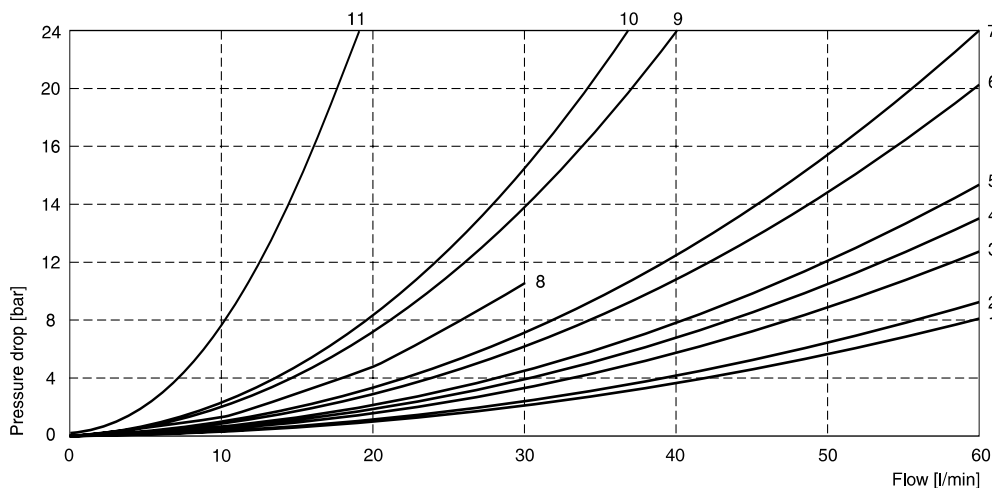
D1VW-8W UK.indd 21.09.2018



The flow curve diagram shows the flow versus pressure drop curves for all spool types, operating position and flow direction is given in the table below.

**2**

Spool	Position „b“		Position „a“		Position „0“				
	P->A	B->T	P->B	A->T	P->A	P->B	A->T	B->T	P->T
001	3	3	3	3	-	-	-	-	-
002	3	4	3	4	1	1	3	3	1
003	4	4	4	5	-	-	4	-	-
004	3	4	3	4	-	-	4	4	-
005	3	3	3	3	8 (max. 30l)	-	-	-	-
006	3	4	3	4	4	4	-	-	-
007	4	3	3	3	-	2	-	1	4
010	4	-	4	-	-	-	-	-	-
011	3	3	3	3	-	-	11 (max. 25l)	11 (max. 25l)	-
014	4	3	3	3	2	-	1	-	4
015	4	5	4	4	-	-	-	4	-
016	3	3	3	3	-	8 (max. 30l)	-	-	-
020B	4	4	3	4	-	-	-	-	-
026B	4	-	4	-	-	-	-	-	-
030B	3	4	4	3	-	-	-	-	-
081	9	10	9	10	-	-	-	-	-
082	9	10	9	10	-	-	-	-	-
101B	4 (max. 40l)	7	7	6	-	-	-	-	-
102	3	4	3	4	3	3	5	5	3
	P->B	A->T	P->A	B->T	P->A	P->B	A->T	B->T	P->T
008	4	5	4	5	-	-	-	-	6
009	5	5	5	5	-	-	-	-	4

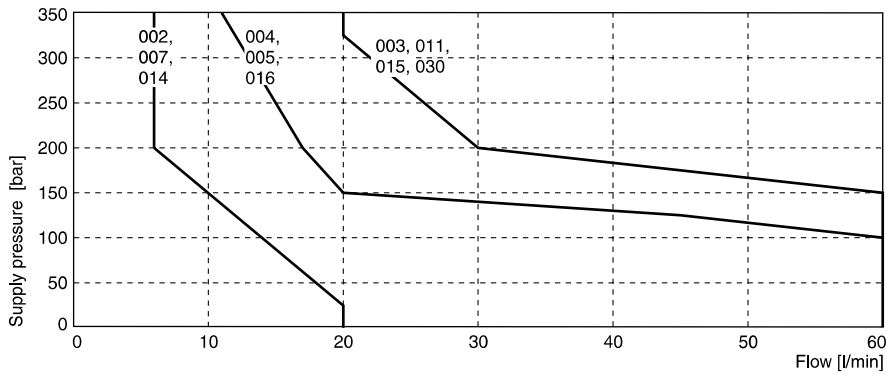
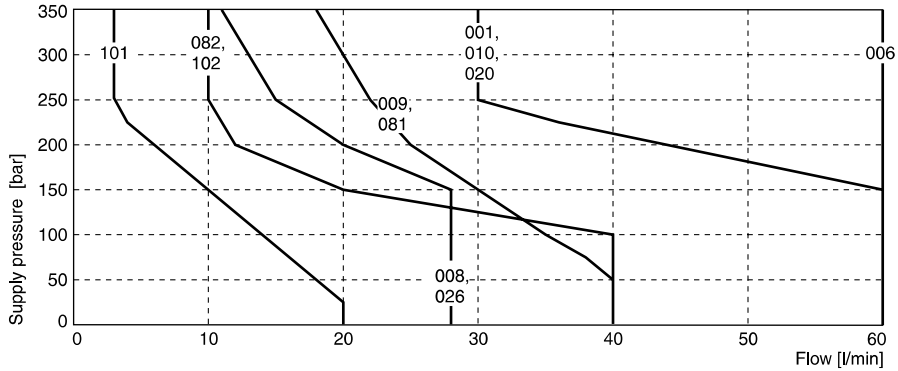
**Flow curve diagram**


All characteristic curves measured with HLP46 at 50 °C.

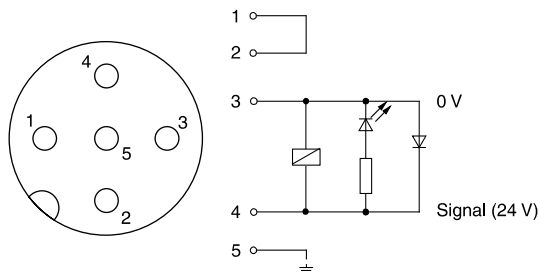
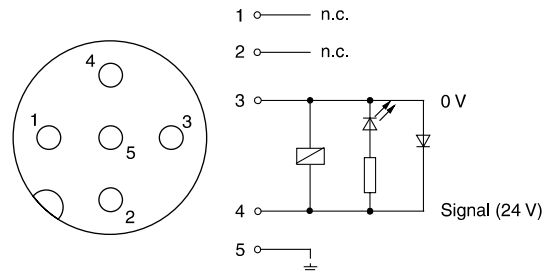
D1VW-8W UK.indd 21.09.2018

The diagram below specifies the shift limits. The specifications apply to a viscosity of 40 mm<sup>2</sup>/s and balanced flow conditions. The shift limits can be considerably lower at

unbalanced flow conditions. To avoid flow rates beyond the shift limits, a plug-in orifice can be inserted in the P-port.

**2**
**Shift limits**


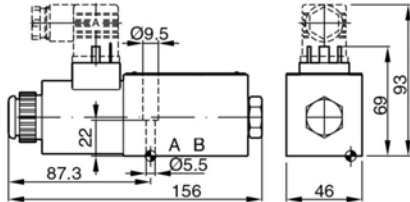
Measured with HLP46 at 50 °C, 90 %  $U_{nom}$  and warm solenoids.

**M12 pin assignment DESINA design,  
 code „JDLJ5“,  
 pins 1 and 2 connected <sup>1)</sup>**

**M12 pin assignment,  
 code „JDL“,  
 pins 1 and 2 not connected <sup>1)</sup>**


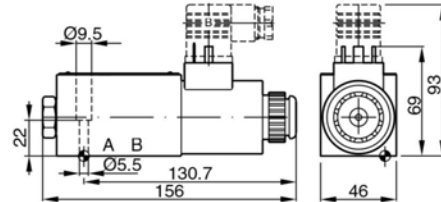
<sup>1)</sup> Surge diode with LED, max. voltage peak 50 V

Catalogue MSG11-3500/UK  
**Dimensions**

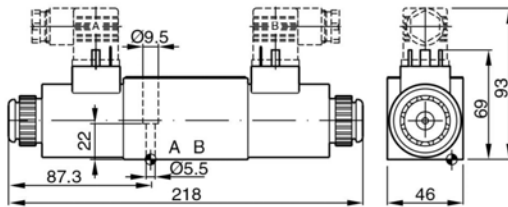
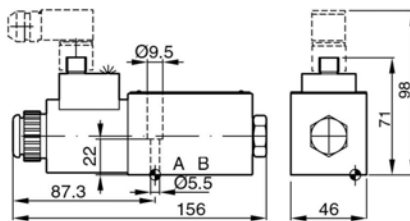
 Directional Control Valve  
**Series D1VW 8 Watt**
**2**

 Interface EN 175301-803, DC solenoid, JWL  
 Style B, E


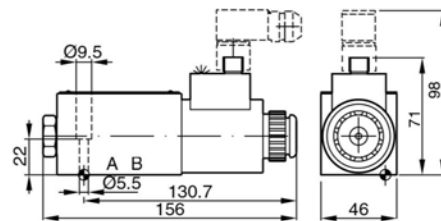
Style H, K



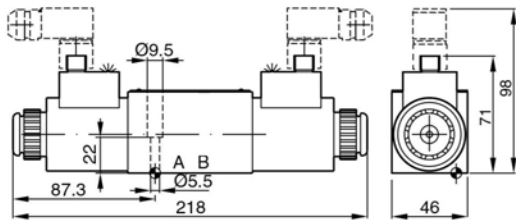
Style C, D






 M12x1 connector, DC solenoid, JDLJ5 (DESINA) or JDL  
 Style B, E


Style H, K



Style C, D



Surface finish	 Kit			
$\sqrt{R_{ms}} 6.3$ $\square 0.01/100$	BK375	4x M5x30 ISO 4762-12.9	7.6 Nm ±15 %	NBR: SK-D1VW-N-91 FPM: SK-D1VW-V-91

 The space necessary to remove the plug per EN 175301-803, design type AF is at least 15 mm.  
 The torque for the screw M3 of the plug has to be 0.5 to 0.6 Nm.

D1VW-8W UK.indd 21.09.2018

