

Characteristics

The D1FV*EE series with explosion proof solenoids is based on the standard D1FV series. The specific solenoid design allows the usage in hazardous environments. The explosion proof class is

CE Ex II 2 G

Ex e mb IIC T4 Gb

for use in zone 1 and 2 (conform to ATEX).

Additionally the solenoids have IECEx conformity.

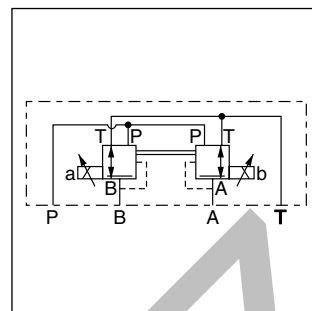
The parameters can be saved, changed and duplicated in combination with the digital power amplifier PWD00A-400 (to be used in an explosion proof cabinet or outside of the hazardous area).

The valve parameters can be edited with the common ProPxD software.

The D1FV valves control the pressure in the A or B ports using the barometric feedback principle.

Features

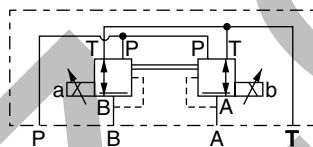
- Barometric feedback
- High repeatability from valve to valve
- Low hysteresis
- Manual override
- Optional: coil to permit ambient temperature up to +60 °C, modification XG371



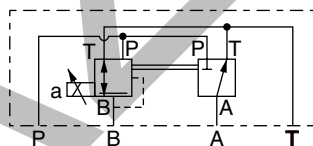
Example function C

Schematics

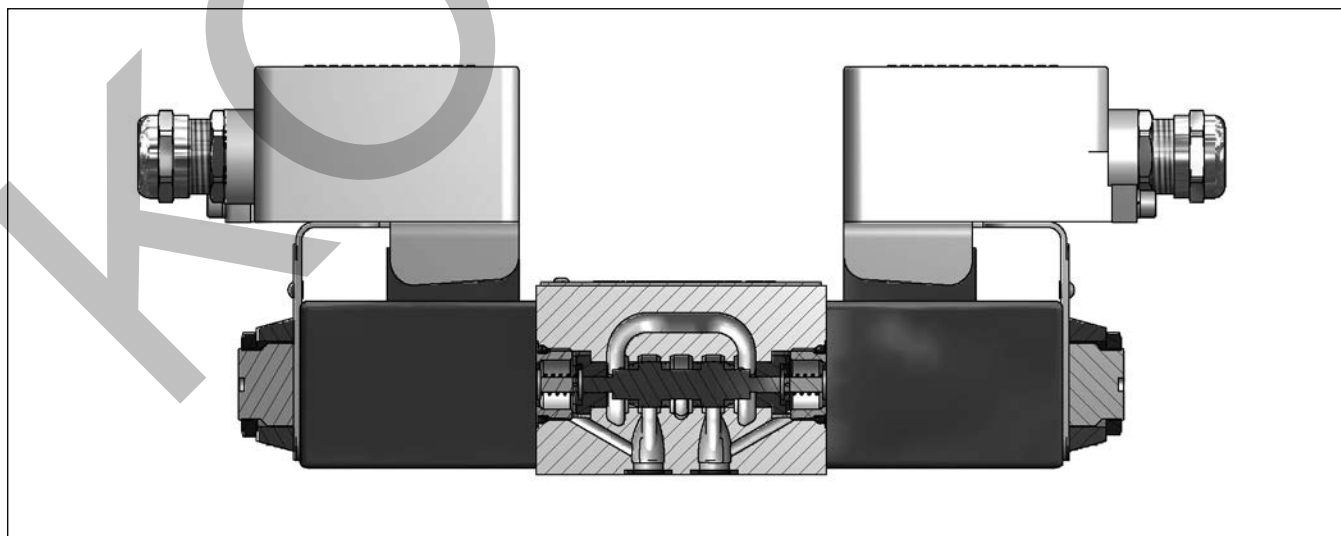
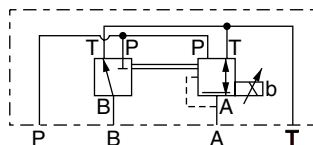
Control function C



Control function E



Control function K



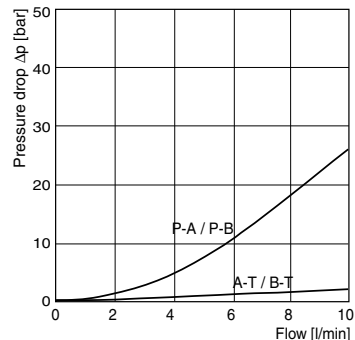
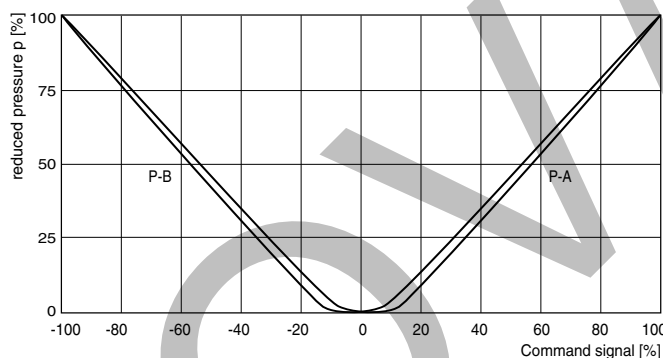
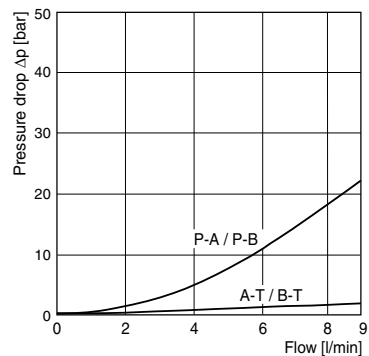
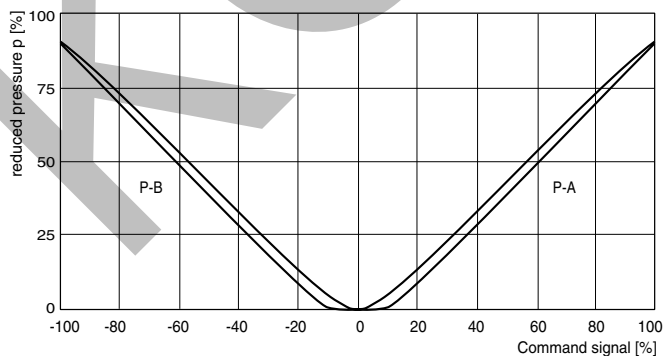
Ordering code

D	1	F	V	E02	C		0	V		E	3		EE	
Proportional pressure reducing valve	Size DIN NG06 CETOP 03 NFFA D03	Proportional control	Spool	Pressure range 25 bar	Control function		Seals FPM	Solenoid	Explosion proof	Spool/body design	Design series (not required for ordering)	Connection Explosion proof with cable glands Ex e mb IIC T4 Gb + IECEx conformity	Modification	

Code	Spool position
C	
E	
K	


Code	Modification
omit	Standard
XG371	Coil to permit ambient temperature up to +60 °C


Code	Solenoid
K	12 V / 2.3 A
J	24 V / 1.15 A
J*XG371	24 V / 1.0 A

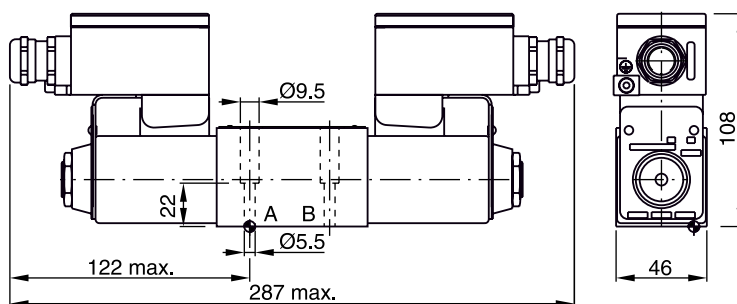
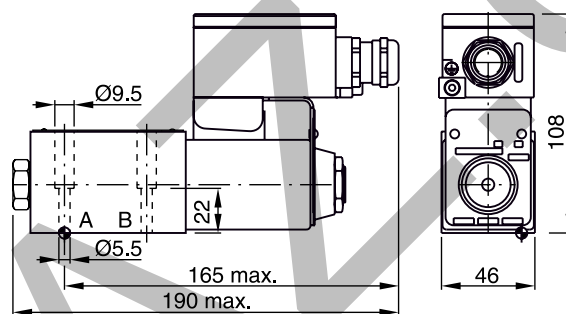
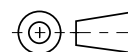
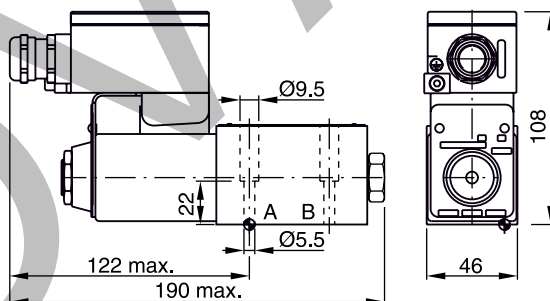
Characteristic curves
StandardCharacteristic curves
XG371





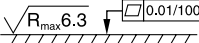
All characteristic curves measured with HLP46 at 50 °C.

Technical Data

General				
Design		Direct operated proportional pressure reducing valve		
Actuation		Proportional solenoid		
Size		NG06 / CETOP 03 / NFPA D03		
Mounting interface		DIN 24340 / ISO 4401 / CETOP RP121 / NFPA		
Mounting position		unrestricted		
Ambient temperature		[°C]	-20...+40; XG371: -20...+60	
MTTF _D value		[years]	150	
Weight		[kg]	3.5 (2 solenoids), 2.5 (1 solenoid)	
Hydraulic				
Max. operating pressure		[bar]	Ports P, A, B 350; Port T 185	
Max. pressure drop PABT / PBAT		[bar]	350	
Fluid		Hydraulic oil as per DIN 51524...51535, other on request		
Fluid temperature		[°C]	-20...+40; XG371: -20...+60	
Viscosity	permitted	[cSt] /	20...400	
	recommended	[cSt] /	30...80	
Filtration		ISO 4406; 18/16/13		
Max. flow		[l/min]	10	
Min. primary pressure		[bar]	30	
Static / Dynamic				
Hysteresis		[%]	<4	
Temperature drift solenoid current		[%/K]	<0.02	
Electrical characteristics				
Duty ratio		[%]	100	
Protection class		CE  II 2 G , Ex e mb IIC T4 Gb, IP66 (plugged and mounted correctly)		
Solenoid	Code	J	J*XG371	K
Supply voltage	[V]	24	24	12
Current consumption	[A]	1.15	1.0	2.3
Resistance	[Ohm]	12.0	12.0	3.0
Solenoid connection		Box with M20x1.5 entry for cableglands. Solenoid identifications per ISO 9461.		
Wiring min.		[mm²]	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.

Dimensions**Proportional Pressure Reducing Valve
Series D1FV*EE Explosion Proof****D1FV*C*EE****D1FV*K*EE****D1FV*E*EE**

Surface finish	 Kit	 Kit		 Kit NBR
$\sqrt{R_{max} 6.3}$ 	BK375	4x M5x30 ISO 4762-12.9	7.6 Nm $\pm 15\%$	SK-D1FB