

DN3 SERIES BALL SEATED HYDRAULIC SOLENOID PILOT VALVE



Specifically designed for Severe Offshore Environments
Certified for Zone 1, Class 1 Hazardous Areas

ATEX 94/9/EC

M.T.B.F., SFF, PFD and SIL Data (Available upon request)

Easy Installation, Repair and Replacement
Ambient Temperature Range -50°C to +60°C
Low Power Consumption (3.5 & 8 Watts)
316 Stainless Steel Construction
Wide range of operators available
1140 bar Max Operating Pressure



• 5 litres/min

• Leak tight

General Description

The DN3 is a ball seated hydraulic control valve. The stainless steel seat and ceramic ball design ensures a leak tight shut off. The DN3 valve design incorporates a balanced internal piloting system and a lever mechanism to enable low powered operators to switch the valve at high pressures.

The DN3 valve features an 'O' Ring interface that enables it to be fitted with a ¼"NPT ported subplate as standard, or manifold mounted to reduce pipework, fittings, weight and space. This interface also allows direct mounting of the DN3 valve to the larger pilot-operated DN5, whereby increasing the flow capacity up to 200L/min. (Please consult factory for further information).

By removing just 4 bolts the valve can be dismounted without disturbing pipework and possibly contaminating the hydraulic system. Blanking or flushing plates can also be supplied.



DN3 SERIES BALL SEATED HYDRAULIC SOLENOID PILOT VALVE

Ambient Temperature Range

- Standard: -20°C to +60°C (-4°F to +140°F)
- Low temperature option: -50°C (-58°F)

Ingress Protection

• IP66/NEMA 4X

Filtration

Recommended 10 micron absolute

Construction Materials

- Valve bodies and subplates: 316L Stainless Steel
- Wetted parts: various grades of stainless steel/ceramic
- Fasteners: A4, grade 80 stainless steel
- Springs: stainless steel

Protection Class

- Exd IIC T6 at 60°C
- Exd IIC T5
- EExd IIb T4
- EExde IIb T4/T6

Power Consumption

• 3.5 & 8 watts

Operating Pressure Range

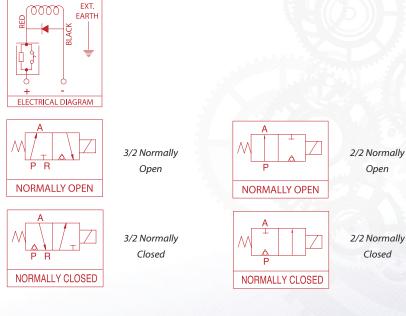
• 0 to 1140 bar depending on operator type

Operating Medium

Open

Closed

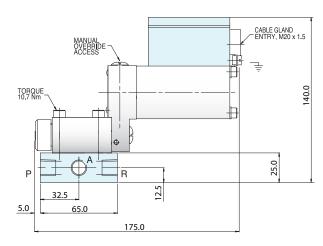
- Fluids Suitable for use with Mineral Oils, Water Glycols, Methanol and Fresh Water
- Gases Air, Natural Gas, and Nitrogen

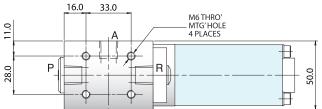


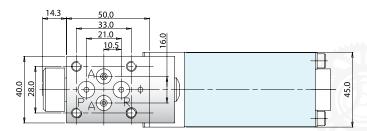
- EExd IIC T6 • EExme II T4
- EExme II T6

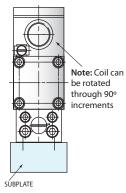


DN3 SERIES BALL SEATED SCHEMATICS







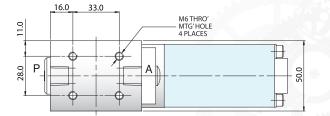


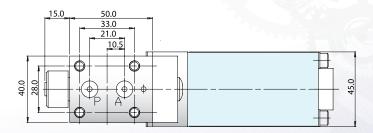
CERTIFICATION OPTIONS AVAILABLE

3/2 SUBPLATE MOUNTED ALL PORTS ¼"NPT WEIGHT 3.0 KGS

3/2 'O' Ring Interface Weight 2.5kg

	Port	Dia	'O' Ring
	P AND R	3.0	9.25 x 1.78
2	А	3.0	6.07 x 1.78





2/2 'O' Ring Interface Weight 2.5kg

2/2 SUBPLATE

ALL PORTS ¼"NPT WEIGHT 3.0 KGS

MOUNTED

Port	Dia	'O' Ring
P AND A	3.0	9.25 x 1.78

											DN03 - 5l/min	Valve Orifice Size & Nominal Flowrates (Water Glycol @ 10 Bar AP)
											$\begin{array}{ccc} 2 = 250 & 5 = 690 \\ 3 = 345 & 6 = 1140 \\ 4 = 400 & 7 = 1035 \end{array}$	Max Operating Pressure (Bar)
											2 3 4	No. of Ports
											2	No. of Positions
									N/O Divertor	7	- 4/3 open centre - Universal	Function
										A = non	block before bleed	Block Before Bleed
									1 = Gas 2 = Oil		/ater il & Water Glycol	Operating Medium
								Nitril Vitor		= Flurosili = Deirin (g	cone (Low Temp) gases)	Seals
D E = K1 K2 K3 L = N P =	= EExme = EExme = EExd 2 = EExd 3 = EExd = EExde = Low pi = Mediui	rial Soler e II T6 3.5 II T4 8 w IIb T4 33 IIC T6 3.5 IIC T4 8.0 IIb T4/T6 ressure p m pressu ressure p	watt so att soler watt sol watt so watt so watt so 13 watt ilot ope re pilot	lenoid noid A lenoid blenoid Non A rator operat	ATEX FEX II 2 ATEX I ATEX I ATEX I ATEX tex	2G - U 2G - UL/ 2G 2G - U	/CSA/INI JL/CSA/	METR INME	TRO O ETRO TRO	(1 = Fusibl (2 = Fusibl (3 = Fusibl (4 = Fusibl (5 = Fusibl	rr (adjustable) le Bulb = 57°C le Bulb = 68°C le Bulb = 79°C e Bulb = 93°C le Bulb = 141°C l Operator	Solenoid Operators
									B = C =	12V dc 24Vdc 48V dc 110V dc	G = 110V 60 Hz H = 120V 60Hz J = 125V 50Hz	
									E =	220V dc 110V 50 H	K = 240V 50Hz 0 = No Voltage	Voltage
								D H O	E = F = Auto r = Manu = Hydra = Manu	220V dc 110V 50 H eset (Sprir al Detent ulic Over-f	K = 240V 50Hz 0 = No Voltage z ng Return)	Voltage Additional Features
								D H O M	E = F = = Auto r = Manu = Hydra = Manu = Manu	220V dc 110V 50 H eset (Sprir al Detent ulic Over-I al Over-Ric al Reset anifold or	K = 240V 50Hz 0 = No Voltage z ng Return) Ride	Additional
								D H O M	E = F = Auto r = Manu = Hydra = Manu = Manu = Manu	220V dc 110V 50 H eset (Sprir al Detent ulic Over-I al Over-Ric al Reset anifold or s ted	K = 240V 50Hz 0 = No Voltage z ng Return) Ride de (Spring Return)	Additional Features
								D H O M	E = F = Auto r = Manu = Hydra = Manu = Manu = Manu	220V dc 110V 50 H eset (Sprir al Detent ulic Over-Ric al Reset anifold or ted 0 1 0 1 0 1	K = 240V 50Hz 0 = No Voltage z ng Return) Ride de (Spring Return) subplate mounting	Additional Features Interface Port
								D H O M	E = F = Auto r = Manu = Hydra = Manu = Manu = Manu	220V dc 110V 50 H eset (Sprin al Detent ulic Over-Ric al Reset anifold or st ted 0 1 0 0 1 2 0 = Nt 1 = 1/ 2 = po	K = 240V 50Hz $0 = No Voltage$ z ng Return) Ride de (Spring Return) subplate mounting 0 = valve only $= 1/4''$ $0 = Valve Only$ $= NPT$	Additional Features Interface Port Size