

# XD3A... / XD3C... SOLENOID OPERATING PROPORTIONAL VALVES CETOP 3



XD3A../XD3C.. series valves are used for controlling fluid direction and flow rate as a function of the supply current to the proportional solenoid.

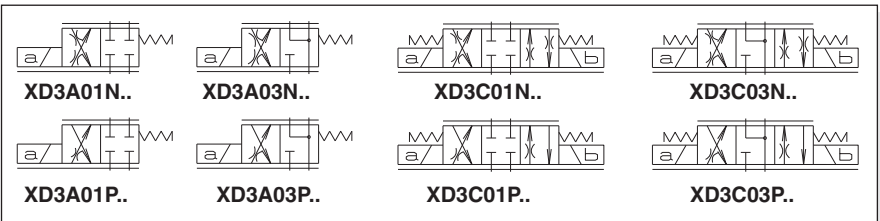
Any valve  $\Delta p$  variation causes a change in the set flow rate; however the valve itself ensure a high level internal compensation by limiting the controlled flow rate.

To ensure a constant flow rate and reduce leakage, we recommend to use AM3H2V or AM3H3V hydrostats.

**Performances shown in this catalogue are guaranteed only using 2 or 3 way modular assembly hydrostats type AM3H. ...**

The shown flow rates are typical for one line operation (e.g. from P to B), while higher flow rates are obtainable by using the valve with our flow rate doubling sub-base type BC307 (see diagram next page). This type of configuration extends considerably the flow rate limit.

| XD3...                    |                |
|---------------------------|----------------|
| STANDARD CONNECTORS       | CAP. I • 20    |
| "D15P" PROPORT. SOLENOIDS | CAP. VIII • 5  |
| REMSRA...                 | CAP. IX • 4    |
| REMRA...                  | CAP. IX • 7    |
| AM3H...                   | CAP. VIII • 15 |
| BC307...                  | CAP. VII • 12  |



## ORDERING CODE

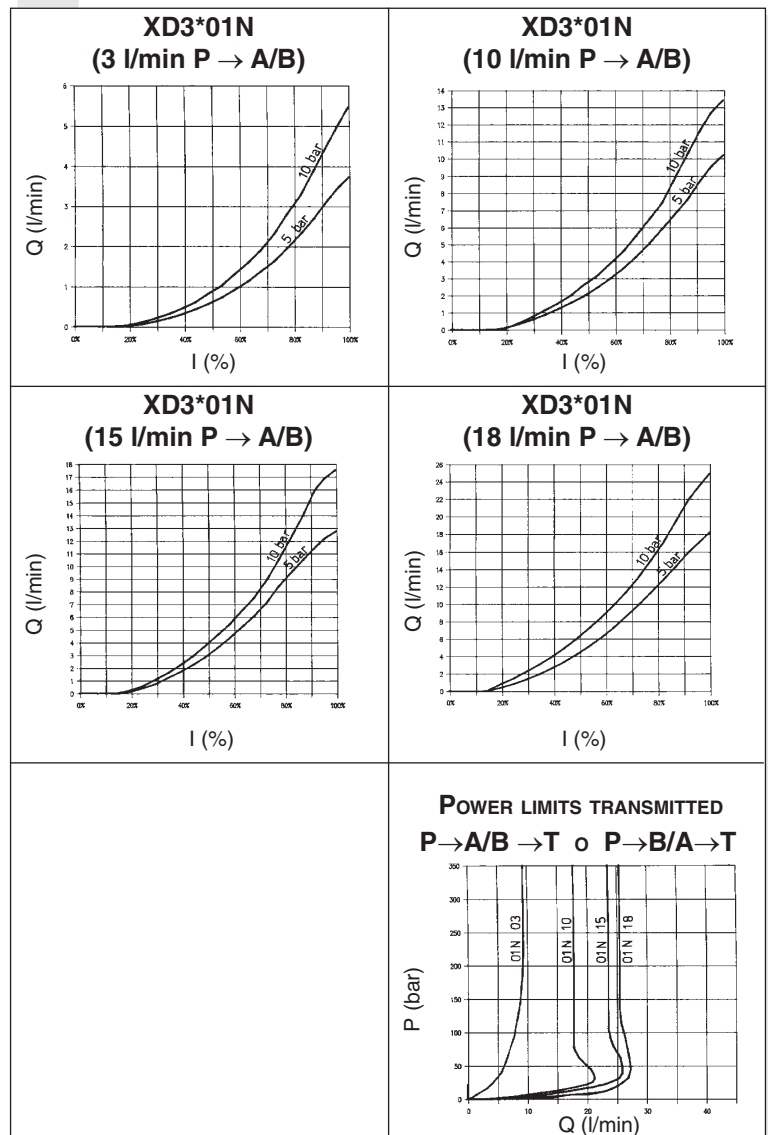
|           |  |
|-----------|--|
| <b>XD</b> | Proportional valve   |
| <b>3</b>  | CETOP 3/NG06   |
| <b>*</b>  | <b>A</b> = Single solenoid<br><b>C</b> = Double solenoid   |
| <b>**</b> | Type of spool (null position)  |
|           | <b>01</b> = <b>03</b> =  |
| <b>*</b>  | Flow path control (see symbols table)<br><b>N</b> = symmetrical<br><b>P</b> = meter in   |
| <b>*</b>  | Flow rating l/min ( $\Delta p$ 5 bar)<br><b>1</b> = 3 l/min<br><b>2</b> = 10 l/min<br><b>3</b> = 15 l/min<br><b>4</b> = 18 l/min |
| <b>*</b>  | <b>E</b> = 2.35 A<br><b>F</b> = 1.76 A<br><b>G</b> = 0.88 A  |
| <b>**</b> | Variant: see Tab.1   |
| <b>2</b>  | Serial No.   |

## TAB.1 - VARIANTS (\*)

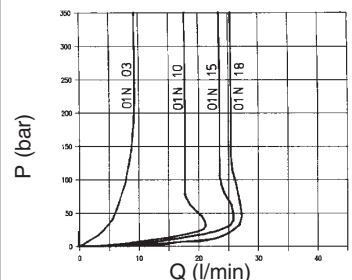
|                                 |    |
|---------------------------------|----|
| No variant (without connectors) | S1 |
| Viton                           | SV |
| Rotary emergency                | P2 |
| Rotary emergency 180°           | R5 |

(\*) All variants are considered without connectors. The connectors must be order separately. See Cap. I • 20.

## INPUT SIGNAL CURVES - FLOW RATE



## POWER LIMITS TRANSMITTED P → A/B → T o P → B/A → T



The fluid used is a mineral based oil with a viscosity of 46 mm<sup>2</sup>/s at 40°C. The tests have been carried out at with a fluid of a 40°C.

# XD3A... / XD3C... SOLENOID OPERATING PROPORTIONAL VALVES CETOP 3

## OPERATING SPECIFICATIONS

|   |  |         |          |
|---|--|---------|----------|
| Max. operating pressure ports P/A/B                                 | 350 bar  |         |          |
| Max. operating pressure ports T - for dynamic pressure see note (*) | 250 bar  |         |          |
| Regulated flow rate   | 3 / 10 / 15 / 18 l/min   |         |          |
| Relative duty cycle   | Continuous 100% ED   |         |          |
| Type of protection  | IP 65  |         |          |
| Flow rate gain  | See diagrams   |         |          |
| Hysteresis with connection P/A/B/T $\Delta p = 5$ bar (P/A)         | $\leq 7\%$ of max. flow rate   |         |          |
| Fluid viscosity   | $10 \div 500$ mm <sup>2</sup> /s                                     |         |          |
| Fluid temperature   | $-20^{\circ}\text{C} \div 75^{\circ}\text{C}$                        |         |          |
| Max. contamination level  | class 8 in accordance with NAS 1638 with filter $\beta_{10} \geq 75$ |         |          |
| Weight XD.3.A... (single solenoid)                                  | 1,5 Kg   |         |          |
| Weight XD.3.C... (double solenoid)                                  | 1,7 Kg   |         |          |
| Type of voltage   | 9V   | 12V     | 24V      |
| Max. current  | 2.35A  | 1.76 A  | 0.88 A   |
| Solenoid coil resistance at 25°C (77°F)                             | 2.25 Ohm   | 4.0 Ohm | 16.0 Ohm |

(\*) Pressure dynamic allowed for 2 millions of cycles.

• Operating specifications are valid for fluid with 46 mm<sup>2</sup>/s viscosity at 40°C, using the specified electronic control units.

## ELECTRONIC CONTROL UNIT

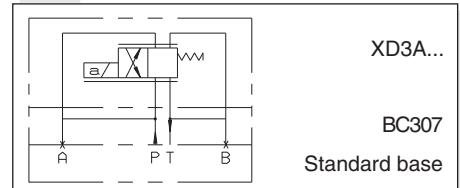
### REMSRA\*\* and REMDRA\*\*

Card type control for single and double solenoid.  
Recommended dither frequency 100 Hz.

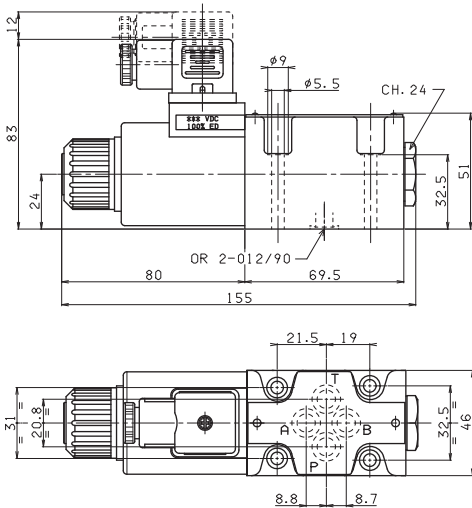
### AM3H2VP1 and AM3H3VP1

Hydrostats 2 or 3 way.

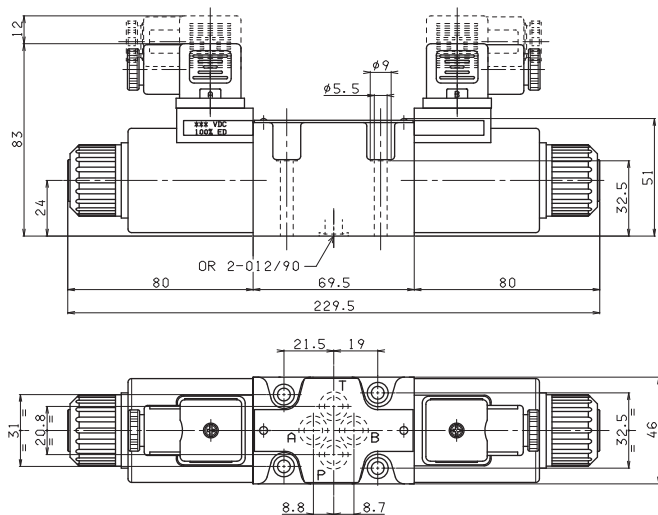
## SCHEMA FOR DOUBLE FLOW RATE



## XD3A... OVERALL DIMENSIONS

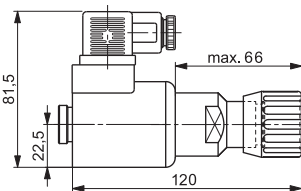
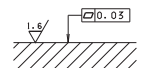


## XD3C... OVERALL DIMENSIONS

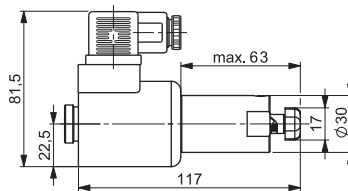


Fixing screws UNI 5931 M5x40 (min. 8.8 material screws are recommended)  
Tightening torque 4 ÷ 5 Nm / 0.4 ÷ 0.5 Kgm

Support plane specification



P2 Rotary emergency (1)

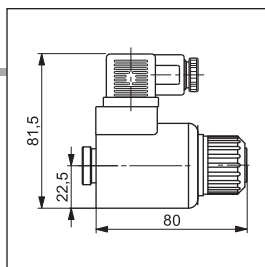


R5 Rotary emergency 180° (2)

- (1) P2 - Adjustable hand emergency.
- (2) R5 - Two positions hand emergency. The regulated flow with emergency actuated can be less than nominal value.

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## "D15P" PROPORTIONAL SOLENOIDS



|  |          |
|--|----------|
| Type of protection (in relation to connector used) | IP 66    |
| Duty cycle   | 100% ED  |
| Insulation class wire                              | H        |
| Weight (coil)                                      | 0,354 Kg |
| Weight (solenoid)                                  | 0,608 Kg |