

**Devanshi**

# Injection And Blow Moulding

Machine Controller

32 bit \* 4



# Industrial Controller Comparison Table

## HMI Specifications Comparison Table

CATEGORIES	AR SERIES		FTS SERIES		FT SERIES
HMI	7"/8"/10.4"/12.1"		10.1"	15.6"	15.6"/17.3"/21.5"
HMI CPU	VESPER/266 MHZ	VELA/1 GHZ		2 GHZ	
Internet	Yes (Optional)	Yes	Yes	X	Yes
RS-485/Can	RS-485*1	RS-485*1+Can*1 OR RS-485*2	RS-485*2 +Can*1	RS-485*1	RS-485*1
Wi-Fi	X	Yes (Optional)		Yes	
Touch Panel	Yes(Optional),Able to expand with a Touch Panel (10.4"/12.1")			Yes	

## Controller Specifications Comparison Table

CATEGORIES	AR800/AR810	AR1280	AR2000	AR2010	AR2100
P C CPU	528 MHz	528 MHz	L	520 MHz	
Control CPU	72 MHz	528 MHz Time base = 0.25 ms		520 MHz Time base = 0.25 ms	
I/O Connection	NPN	NPN	NPN	NPN	PNP
Temperature PID Control	5	8	8	8	8
DI Digital Input	24 OR 23 + 1 RPM	32	32/48	32/48	32/48
DO Digital Output	24	32	32/48	32/48	32/48
AD Analog Input	16 bit * 3	16 bit * 6	16 bit * 6	16 bit * 8	16 bit * 8
Start/Stop Input	X	X	X/4	X	X
FDA Analog Output	X/4	24 OR 23 + 1 RPM	24 OR 23 + 1 RPM	X	X
DA Analog Output	X	12 bit * 5 (0 ~ +10 V)	12 bit * 0/4 (0 ~ ± 10 V)	12 bit * 8/12 (0 ~ ± 10 V)	12 bit * 8/12 (0 ~ ± 10 V)
PWM Output	3/1	X	1	X	X
RPM Input	X	1	1	3	3
FPGA	X	PLC CPU & Control CPU data transmitted through a parallel FPGA connection; allows more precise control accuracy			

## Hardware Expansion Specifications Comparison Table

Temperature Module	Man-machine communication allows 15 sets of temperature module expansions; each module includes 8-zones temperature control				
I/O Expansion Module	X	Able to expand 1 module; each module DI/DO*8 (Max = 8)		Able to expand 12 modules; each module DI/DO * 16 (Max = 192)	
A/D Expansion Module	X	X	X	16 bit * 8	16 bit * 8
Encoder Expansion Module	X	X	X	32 bit * 4	32 bit * 4

## Features

APPLICATIONS	INJECTION MOLDING MACHINES	BLOW MOLDING MACHINES	EXTRUDER MACHINES
<b>Common</b>	<ul style="list-style-type: none"> <li>➤ Data memory 100 sets In controller Memory Increase up to to 300 sets in USBDrive or MMC/SD card.</li> <li>➤ Program can be Save/Load through USB drive or MMC/SD card.</li> <li>➤ 8 Level Password protection for user settable parameters.</li> <li>➤ Hourly Production and Energy Consumption data available for one month.</li> <li>➤ Swap-able digital I/Os, analog I/Os &amp; Temperature zones, so no need to modify software or change wiring for I/O Replace.</li> <li>➤ Page Image can be saved in USB Drive or MMC/SD card.</li> <li>➤ Alarm Record/Setting Modify Record/Q.C. parameter Record (can be saved in Pen Drive or logging Possible in Pen drive after Fix intervals). Data can be opened in XL format.</li> <li>➤ Faster PLC execution time and special interrupt control function for precise accuracy.</li> <li>➤ Multilingual (Optional).</li> <li>➤ Windows Base software for Easy Modifications in Screen and Ladder.</li> <li>➤ Multifunction valves can be configured easily from Screens.</li> </ul>		
<b>Application Base</b>	<ul style="list-style-type: none"> <li>➤ DA calibration function for linear output of Proportional Valve/AC</li> <li>➤ Multifunction valves can be configured easily from Screens.</li> <li>➤ 5 Stage Clamp Open &amp; Close Control with various cut off option in tonnage. Inbuilt standard auto tonnage program for toggle machines. Settable Stage selection available.</li> <li>➤ 4 Stage Injection Velocity and 4 Stage Hold Pressure. Various V2P cut off options are available. Stage Selection is available.</li> <li>➤ 3 Stage Recovery with Pre-Suck back and Post Suck Back Option. Stage Selection is Available.</li> <li>➤ 2 Stage Control for Ejector forward and retract. Return Confirmation, multistep, Step Vibrate and Stay Forward Options are standard.</li> <li>➤ 4 Core Program is standard with all multiple configurations.</li> <li>➤ 4 AIR blow Programs with Time and Position Option.</li> <li>➤ Start &amp; End Ramp &amp; Delays for Pressure and Speed functions along with Solenoid Delays.</li> <li>➤ Middle Slopes for Clamp Control.</li> <li>➤ Faster Support for all kinds of custom base software modifications on requirement.</li> <li>➤ Keypad Customization on demand for OEMs and Multicolor machine.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Standard Programs for Single Station, Double Station Extrusion Blow molding machines.</li> <li>➤ 400 Steps Parison Control Option Available with VEGA Parison Board.</li> <li>➤ Easy Support to External Parison Control systems.</li> <li>➤ Separate Delay and Action time for each function and monitor time for limit/position base functions.</li> <li>➤ Actual Time monitoring for each and every function.</li> <li>➤ Separate Standard Keypad Designs single Station and Double Station.</li> <li>➤ Custom Keypad option on Demand of OEM.</li> <li>➤ Start &amp; End Ramp &amp; Delays for Pressure and Speed functions along with Solenoid Delays for hydraulic controlled functions.</li> <li>➤ Faster Support for all kinds of custom base software modifications on requirement.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Multiple Drive Sync option including Main Extruder, Coextrude, Haul off, Take off and Cutter.</li> <li>➤ On Screen Alarm and Key interlock for easy settings to OEM's.</li> <li>➤ Settable Temp Zone Names, DA Zones Names and AD Zone Names.</li> <li>➤ Settable Total Digit and Fractional Digit for all Analog AD and DA.</li> <li>➤ Dedicated Keypad with symbols and separate speed Inc/Dec Keys for each Drive.</li> <li>➤ Custom Program Designing and Support is available.</li> </ul>
<b>FPGA</b>	<ul style="list-style-type: none"> <li>➤ System with new generation high speed multiprocessor (ARM) DCS system. Separate processors for Primary &amp; Secondary functions with high speed internal CPU communication, which provide faster response and real time monitoring of machine.</li> </ul>		

## Related Products



### Devanshi Advantage

- 37 years in Domestic and International markets
- Diverse International clientele spread over Africa, Middle East and Indian subcontinent
- Experienced team of specialist engineers catering to international projects
- High quality and reliable products
- On-site service delivery for our International / Domestic clients
- Vast product range catering to diverse industries and applications

### Projects Undertaken

- Plastic Machine Controller Retrofitting for Injection / Blow / Extruder machines
- Servo Systems Retrofitting for energy saving for Injection / Blow machines
- Turnkey projects for Industrial process automation
- Robotics based Automation for Insert moulding / Inmould loading for containers<sup>s</sup> and downstream Automation projects
- State of the Art manufacturing intelligence software for increased productivity
- Project to convert conventional machines to Industry 4.0



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