I/O Expansion Modules

Expand your system with local or remote I/O expansion modules.
Vision series support both local & remote I/O modules. M91 supports local modules only.

Digital Modules

IO-DI8-TO8	IO-DI8-RO4	IO-DI8-RO8	EX90-DI8-RO8[3]	IO-DI16
24VDC* **8** Digital Inputs, pnp/npn, including one High-speed Counter **8** pnp Transistor Outputs	24VDC* **8** Digital Inputs, pnp/npn, including one High-speed Counter **4** Relay Outputs	24VDC* **8** Digital Inputs, pnp/npn, including one High-speed Counter **8** Relay Outputs	24VDC **8** Digital Inputs, pnp/npn, including one High-speed Counter **8** Relay Outputs	24VDC* **16** Digital Inputs, pnp/npn, including one High-speed Counter

IO-TO16	IO-RO8	IO-RO16	IO-DI8ACH
24VDC **16** pnp Transistor Outputs	24VDC* (power supply) **8** Relay Outputs	24VDC* (power supply) **16** Relay Outputs	110/220 VAC **8** AC Inputs

*Also available as 12VDC – contact us for part number

High-speed Remote I/O Module

EX F-RC15[2,5]
24VCD **9** Digital Inputs pnp/npn, including **3** high-speed counter, **4** npn Transistor Outputs, may function as high-speed PWM/PTO, **2** relay outputs

Analog, Temperature and Weight/ Strain Measurements

IO-AI4-AO2	IO-PT400	IO-PT4K
24VDC (power supply) **4** Analog Inputs 12-bit, 0-10V, 0-20mA, 4-20mA, **2** Analog Outputs, 12-bit+sign, ±10V, 0-20mA, 4-20mA	**4** PT100/NI100/NI120 Inputs Range PT100: -50°C ÷ 460°C (-58°F ÷ 860°F) Range NI100: -50°C ÷ 232°C (-58°F ÷ 449°F) Range NI120: -50°C ÷ 172°C (-58°F ÷ 341°F) 12-bit	**4** PT1000/NI1000 Inputs Range PT1000: -50°C ÷ 460°C (-58°F ÷ 860°F) Range NI1000: -50°C ÷ 232°C (-58°F ÷ 449°F) 12-bit

IO-AO6X	IO-LC1[4] IO-LC3[4]	IO-ATC8	IO-AI8
24VDC (power supply) **6** Isolated Analog Outputs 0-10V, 0-20mA, 4-20mA 12-bit	12/24VDC (Power Supply) **1-3** Loadcell/Strain gauge Inputs Input voltage ranges: ± 20mV, ± 80mV Excitation: AC/DC **1** Digital pnp Input **2** pnp Outputs Not supported by all PLCs	**8** Thermocouple/ Analog Inputs T/C J, K, T, B, E, N, R, S, 0.1° Resolution, 0-10V, 0-20mA, 4-20mA, 12/14-bit	**8** Analog Inputs 0÷10V / 0 ÷ 20mA 14-bit 0-10V, 0-20mA, 4-20mA 12/14-bit

I/O Expansion Module Adapters

EX-A2X[1]
Local I/O module adapter. Galvanic isolation. Up to **8** modules may be connected to a single PLC1. Supports both 12/24 VDC

EX-RC1[1,5]
Remote I/O module adapter, via CANbus. Connect multiple adapters to a single PLC; connect up to **8** modules per adapter. Supports both 12/24 VDC.

[1] Number of supported I/Os & I/O modules varies according to PLC model.

[2] The EXF-RC15 functions as a CANbus node in a Vision UniCAN network. The EXF-RC15 is stand-alone and does not support I/O Expansion Modules.

[3] The EX90 is housed in an open casing. Only one EX90 can be connected per PLC, as a single expansion module; Expansion adapter not required.

[4] IO-LCx models are supported by the M91 & Vision series. Not supported by the M90 series.

[5] Supported by Vision series. Not supported by M91 series.

XL Digital/Analog Modules

		Functions as both I/O module and adapter*	
IO-D16A3-RO16	**IO-D16A3-TO16**	**EX-D16A3-RO8**	**EX-D16A3-TO16**
24VDC, **16** Digital Inputs pnp/npn, including two High-speed Counters, **3** Analog Inputs, 10-bit, 0-20mA, 4-20mA, **16** Relay Outputs	24VDC, **16** Digital Inputs pnp/npn, including one High-speed Counter, **3** Analog Inputs, 10-bit, 0-20mA, 4-20mA, **15** pnp + **1** pnp/npn Transistor Outputs including **1** HSO	24VDC, built-in Expansion Module Adapter, **16** Digital Inputs, pnp/npn, including two High-speed Counters, **3** Analog Inputs 10-bit, 0-20mA, 4-20mA, **8** Relay Outputs	24VDC, built-in Expansion Module Adapter, **16** Digital Inputs, pnp/npn, including one High-speed Counter, **3** Analog Inputs 10-bit, 0-20mA, 4-20mA, **15** pnp + **1** pnp/npn Transistor Outputs including **1** HSO

* Functions as local adapter. Can support up to **7** I/O modules

Snap-in I/O Modules

Plug a Snap-in module directly into the back of a Vision PLC.
Compatible with all V200, V500, V1040 and V1210 Vision series models.

Article No.	V200-18-E1B	V200-18-E2B	V200-18-E3XB	V200-18-E4XB	V200-18-E5B	V200-18-E6B	V200-18-E46B[1]	V200-18-E62B[1]
Digital Inputs (isolated)	16 npn/pnp (including 2 Shaft-encoder inputs)	16 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	30 npn/pnp (including 2 Shaft-encoder inputs)
Analog Inputs	3 10-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	4 isolated 12-14-bit (software dependent) 0-10V, 0-20mA 4-20mA and/or TC/PT100	4 isolated 12-14-bit (software dependent) 0-10V, 0-20mA 4-20mA and/or TC/PT100	3 10-bit 0-10V, 0-20mA 4-20mA	3 10-bit 0-10V, 0-20mA 4-20mA & 2 14-bit 0-10V, 0-20mA 4-20mA and/or TC/PT100	9 3 10-bit, 0-10V 0-20mA, 4-20mA 6 14-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA
Temperature Measurement	None	None			None		None	None
Digital Outputs (isolated)	4 npn/pnp (including 2 High-speed outputs)	4 npn/pnp (including 2 High-speed outputs)	2 npn/pnp High-speed	15 pnp 2 npn/pnp (including 2 High-speed)	15 pnp 2 npn/pnp (including 2 High-speed)	2 npn/pnp High-speed	2 (including 2 High-speed)	28 pnp 2 npn/pnp High-speed
Relay Outputs (isolated)	10	10	15	None	None	15	15	None
Analog Outputs	None	2 12-bit 0-10V, 0-20mA 4-20mA	4 12-bit 0-10V, 4-20mA isolated	4 12-bit 0-10V, 4-20mA isolated	None	2 12-bit 0-10V, 4-20mA isolated	2 12-bit 0-10V, 4-20mA isolated	None

[1]V200-18-E46B, V200-18-E62B are not yet UL certified

Additional COM Modules
Enhance Vision's communication capabilities[1]

Vision Model	Ethernet	RS232/RS485	Isolated RS232/RS485	CANbus	Profibus
SAMBA	V100-17-ET2	V100-17-RS4	V100-17-RS4X	V100-17-CAN	None
V130, V350, V430	V100-17-ET2 V100-S-ET2[2]	V100-17-RS4	V100-17-RS4X	V100-17-CAN V100-S-CAN[2]	V100-17-PB1
V200, V500, V700, V1040,V1210	V200-19-ET2	V200-19-RS4	V200-19-RS4-X	None	V100-17-PB1[3]

GSM-KIT-41J
Kit Including Enfora GSM1318 Q. Band Modem

GSM-KIT-16J
KIT, MODEM GPRS, CINTERION, BGS2T

GSM-KIT-17J-3G
KIT, MODEM GPRS, CINTERION, EHS6T

DIN-rail Power Supplies

UAP-24V24W	UAP-24V60W	UAP-24V96W
24W 24V 1A	60W 24V 2.5A	96W 24V 4A

[1] V200/V500/V1040/V1210: 1 optional port for serial or Ethernet
V130/V350: 1 optional port for serial or Ethernet & 1 optional port for CANbus/Profibus

[2] Extended temperature cards, operational temperature : -30ºC to 60ºC

[3] Only for V700