

Valve terminal VTSA-FB-AP

Part number: 8130716

FESTO



General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Electrical control	AP interface Fieldbus
Electrical I/O system	yes
Terminal type	44
Protocol	AP
Type of mounting	Direct mounting via through-hole On H-rail via accessories On mounting frame Screw-clamped With through-hole for M5 screw with accessories With through-hole for M6 screw with accessories Via through-hole for M5 screw Via through-hole for M6 screw
Max. number of modules	15
Mounting position	Any, on H-rail: horizontal
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-5 °C ... 50 °C
Note on ambient temperature	Observe ambient temperature derating according to IEC 61131-2:2017
Storage temperature	-20 °C ... 60 °C
Relative air humidity	5 - 90% Non-condensing
Nominal altitude of use	≤ 2000 m ASL (> 79.5 kPa)
Max. installation height	3500 m
Note on max. installation height	> 2000 m ASL (< 79.5 kPa) Observe ambient temperature derating according to IEC 61131-2:2017
Degree of protection	IP65
Note on degree of protection	Unused connections sealed
Corrosion resistance class CRC	0 - No corrosion stress
Protection against direct and indirect contact	SELV/PELV power supply units required
Pollution degree	2
Operating pressure	-0.09 MPa ... 1 MPa
Operating pressure	-0.9 bar ... 10 bar
Pilot pressure	0.3 MPa ... 1 MPa
Pilot pressure	3 bar ... 10 bar
Operating pressure for valve terminal with internal pilot air supply	0.3 MPa ... 1 MPa
Operating pressure for valve terminal with internal pilot air supply	3 bar ... 10 bar

Feature	Value
Operating pressure for valve terminal with internal pilot air supply	43.5 psi ... 145 psi
LABS (PWIS) conformity	VDMA24364-B1/B2-L
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
KC mark	KC-EMV
Approval	RCM trademark c UL us - Recognized (OL)
Certificate issuing authority	UL E322346
Note on materials	RoHS-compliant Free of halogen Free of phosphoric acid ester
Valve terminal structure	Modular, valve sizes can be mixed
Max. number of valve positions	32
Max. number of pressure zones	32
Type of actuation	Electric
Valve function	2x2/2-way, monostable, closed 2x3/2-way, monostable, closed 2x3/2-way, open, monostable 2x3/2-way, open/closed, monostable 5/2 bistable 5/2-way, bistable, dominant 5/2-way, monostable 5/2-way, monostable, safety function 5/3-way, pressurised 5/3 exhausted 5/3 closed 5/3-way, port 4 pressurised, 2 exhausted
Design	Piston gate valve
Valve size	42 mm
Pilot air supply	External Internal
Max. standard nominal flow rate	700 l/min at 18 mm 1350 l/min at 26 mm 1860 l/min at 42 mm 2900 l/min at 52 mm 4000 l/min at 65 mm
Suitability for vacuum	yes
Exhaust-air function	Via throttle plate
pneumatic working port	G1/8 G1/4 G3/8 G1/2 1/8 NPT 1/4 NPT 3/8 NPT 1/2 NPT QS-6 QS-8 QS-10 QS-12 QS-14 QS-16 QS-5/16 QS-3/8 QS-1/2
Signal status display	LED
Note on fieldbus interface	All information that is relevant to CPX-AP can be read out via the Ethernet interfaces/fieldbus connections and changed depending on the function. Auto MDI, the bus module performs a crossover check Firmware update via Ethernet interface/fieldbus interface I&M functionality according to PNO is supported. Based on the Ethernet protocol IEEE 802.3

Feature	Value
Fieldbus interface	Ethernet
Field bus, protocol	ACD (Address Conflict Detection) DLR (Device Level Ring) EtherCAT® EtherCAT CoE EtherCAT Distributed Clocks (DC) EtherCAT EoE EtherCAT FoE EtherCAT Modular Device Profile (MDP) EtherNet/IP EtherNet/IP QoS EtherNet/IP Quickconnect LLDP MRP, MRPD (ring redundancy) Modbus/TCP (Modbus/UDP) PROFINET FSU PROFINET I&MO .. 3 PROFINET IRT PROFINET RT PROFINET shared device S2 system redundancy SNMP
Fieldbus interface, function	Bus connection incoming/outgoing
Field bus, connection type	2x socket
Field bus, connection system	M12x1, D-coded to EN 61076-2-101 RJ45 to IEC 61076-3-117 (V14) SCRJ to IEC 61754-24-21
Field bus, connection pattern	2 ... 8
Field bus interface, electrical isolation	yes
Field bus interface, transmission rate	100 Mbit/s
Max. address volume, inputs	1024 Byte
Note on inputs	EP: 488 bytes Modbus: 4096 bytes
Max. address volume, outputs	1024 Byte
Note on outputs	EP: 496 bytes Modbus: 4096 bytes
Internal cycle time	< 1 ms
Configuration support	EDS file ESI file GSDML file IODD file
Power supply, function	Incoming electronics/sensors and load and functional earth
Power supply, connection type	Plugs
power supply, connection system	7/8" to NFPA/T3.5.29 M12x1, L-coded to EN 61076-2-111 M18x1 Push-pull to IEC 61076-3-126
Power supply, number of pins/wires	4 ... 5
Note regarding operating voltage	SELV/PELV fixed power supplies required Note voltage drop
Nominal operating voltage DC	24 V
Note on nominal operating voltage DC	Protected Extra-Low-Voltage to IEC 60204-1
Permissible voltage fluctuations	+/- 10 %
Nominal DC operating voltage, electronics/sensors	24 V
Permissible voltage fluctuations for electronics/sensors	± 25%
Max. power supply	8 A ... 16 A
Typ. intrinsic current consumption at nominal operating voltage for electronic system/sensors	40 mA ... 10000 mA
Typ. intrinsic current consumption at nominal operating voltage, load	3 mA ... 10000 mA
Power failure bridging	10 ms
Potential separation between the supply voltages electronics/sensor technology and load/valves	Yes

Feature	Value
Reverse polarity protection	yes