



- 8 channels for pneumatic valves
- Pneumatic outputs with integrated 3/2-way valves and SIL 2 shut-down input
- Module in Zone 1, Cl. I, Div. 1 can be hot swapped

06 b

WebCode 9478A



The 9478 series digital output module valve for Zone 1, Cl. I, Div. 1 has eight channels for actuating pneumatic valves. The integrated 3/2-way solenoid valves are monitored to check for internal wire breakage and short-circuiting regardless of the drive status. An additional Ex i control input is suitable for safe shutdown up to SIL 2. Operation in combination with Ex i I/O modules is permissible.

	NEC® 500 CEC Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface						
Installation in	•	•	•	•	•	•

	CEC Section 18					
	NEC® 505 Class I			NEC® 506		
Zone	0	1	2	20	21	22
Ex interface						
Installation in		•	•		•	•

	IECEX / ATEX					
	Zone	0	1	2	20	21
Ex interface						
Installation in		•	•		•	•

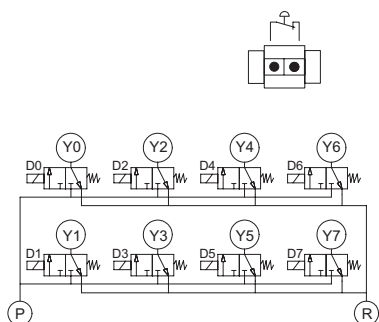
Selection Table					
Product variant	Digital Output Module Valve for Zone 1 / Cl. I, Div. 1				
Number of pneumatic valves	Pressure range min.	Max. pressure range	Product Type	Art. No.	Weight lb
8 x 3/2-valves	2.5 bar	7 bar	9478/22-08-51	203599 ▲	2.09

Technical Data	
Explosion Protection	
Certificate FMus	FM17US0332X
Certificate cFM	FM16CA0134X
Marking FMus	IS; Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; AIS; Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 1, [AEx ia] IIC; T4 at Ta = 60 °C; See Doc. 9478 6 031 001 1
Marking cFM	IS; Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; AIS; Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 1, [Ex ia] IIC; T4 at Ta = 60 °C; See Doc. 9478 6 031 001 1
IECEX gas explosion protection	Ex ib IIC T4
Certificates	ATEX (PTB), Brazil (ULB), Canada (FM), EAC (STV), IECEX (PTB), Korea (KTL), SIL (exida), USA (FM)
Ship approval	DNVGL, RINA
Auxiliary Power	
Max. power consumption	5.75 W with activated pilot valves
Undervoltage monitoring	All outputs are depressurized
Input	
Control input suitability	Switch-off up to SIL 2, low demand (IEC61508)

Technical Data

Input	
Control input function	System OFF, outputs are depressurized
Device Specific Data	
Pneumatic data media	Compressed air oiled Dry Neutral gasses (5 µm filter received) Oil-free
Pneumatic data manual actuation	Yes
Pneumatic data switching times	Approx. 1000 c.p.m.
Pneumatic data Qn value	300 l/min
Pneumatic data Qn value note	at 20 °C air temperature, 6 bar at the valve inlet and 1 bar of differential pressure
Pneumatic connections	P, R: plug connector Ø 8 mm Y0 ... Y7: plug connector Ø 6 mm X: standard silencer (included in the delivery and already fitted)
Ambient Conditions	
Ambient temperature °F	32°F ... +140°F
Ambient temperature °C	0°C ... +60°C
Mechanical Data	
Degree of protection IP (IEC 60529)	IP20
Enclosure material	Polyamide 6GF
Sealing material	FPM, NBR
Material of valve block	PPS, PA

Technical Drawings – Subject to Alterations



Connection diagram

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations

