

WELDSAVER PASSPORT
PROFINET PROFILES

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A PROFINET Device Profile 2

A PROFINET DEVICE PROFILE

WeldSaver Overview

NAME	DESCRIPTION
Vendor	Proteus Industries Inc.
Vendor ID	0x0428
Main family	Sensors
Product family	Weldsaver
Device ID	0x0002
Information	WeldSaver Vortex Profinet

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Device Access Points

» Device Access Point ID=DAP 1: WeldSaver Vortex Profinet

NAME	DESCRIPTION
Module Ident Number	0x00000001
Information	Proteus Industries - Weldsaver Vortex Profinet
Vendor Name	Proteus Industries Inc.
Order Number	9 W P S 50
Hardware Version	1
Software Version	V2.0.0
Category	Weldsaver Vortex
Maximum Input Length	256 Bytes
Maximum Output Length	256 Bytes
Physical Slots	0..2
Minimum Device Interval	32 ms
Based on	portStack
DNS Compliant Name	weldsaverpn
Supports Extended Assignment of IP Address	Yes
Fixed in Slots	0
Instance Field of the Object UUID	1
Supports Multiple Write	Yes
Requires IOPS/IOCS	Yes
IP Address Assignment Methods	DCP
Remote Application Timeout	300 s
Maximum Supported Record Size	4068 Bytes
Power on to Communication Ready	500 ms
Parameterization Speedup Supported	No
Name of Station not Transferable	No
Shared Device Supported	No
Shared Input Supported	No
Device Access Supported	No

» Subslots of Module

SUBSLOT NUMBER	SUBSLOT LABEL
32768 (0x8000)	X1
32769 (0x8001)	X1

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Device Access Points (Continued)

» Submodule ID=DAP 1: WeldSaver Vortex Profinet

NAME	DESCRIPTION
Submodule Ident Number	0x0001
Information	Proteus Industries - Weldsaver Vortex Profinet
Proteus Industries - Weldsaver Vortex Profinet	1 2 3

» Interface ID=IDS_1I: WeldSave Profinet Interface

NAME	DESCRIPTION
Submodule Ident Number	0x0002
Subslot Number	32768 (0x8000)
Supports Realtime Class	Class1
Supports Realtime Classes	RT_CLASS_1
Supports Isochronous Mode	No
Supported Protocols	LLDP
Supported MIBs	
DCP_Hello Supported	Yes
PTP Boundary Supported	Yes
DCP Boundary Supported	Yes
Multicast Boundary Supported	No
Parameterization Disallowed	No
Delay Measurement Supported	No
Number of Additional Input CRs	0
Number of Additional Output CRs	0
Number of Additional Multicast Provider CRs	0
Number of Multicast Consumer CRs	0
Pull Module Alarm Supported	No
Supported Sendclock Factors (Base 31.25 µs)	32
Supported Reduction Ratios	1 2 4 8 16 32 64 128 256 512

» Port ID=IDS_1P1: Port 1

NAME	DESCRIPTION
Submodule Ident Number	0x0003
Subslot Number	32769 (0x8001)
MAU Type	100BASETXFD
MAU Types	16: 100BaseTXFD
Parameterization Disallowed	No
CheckMAUType Supported	No

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Device Access Points (Continued)

» Usable Modules

MODULE ID	NAME	INFORMATION	ALLOWED IN SLOTS	USED IN SLOTS	FIXED IN SLOTS
Input_ Module	12-byte input	Byte0-Byte1 (little endian): Statuses - Bit 0: Adequate Flow - Bit 1: Valved Closed - Bit 2: Bypassed - Bit 3: Minimal Flow - Bit 4: Cap Loss - Bit 5: Valve Fault - Bit 6 : Flow Sensors Fault - Bit 7: Power OK - Bit 8: Metric - Bit 9: Outlet Temperature Fault - Bit 10: Outlet Temperature Alarm - Bit 11: Inlet Temperature Fault - Bit 12: Inlet Temperature Alarm - Bit 13: Temperature Sensors Fault - Bit 14: OK To Pull Cap - Bit 15: Secondary Leak Byte2-Byte3 (little endian and scaled up by 100): Inlet flow rate Byte4-Byte5 (little endian and scaled up by 100): Outlet flow rate Byte6-Byte7 (little endian and scaled up by 100): Inlet temperature Byte8-Byte9 (little endian and scaled up by 100): Outlet temperature Byte10-Byte11 : Reserved	1	1	
Output_ Module	2-byte output	Byte0-Byte1 (little endian): Controls - Bit 0: Reset - Bit 1: Valve - Bit 2: Bypass	2	2	

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Modules

» Module ID=Input_Module: 12-byte input

NAME	DESCRIPTION
Module Ident Number	0x00000030
Information	Byte0-Byte1 (little endian): Statuses - Bit 0: Adequate Flow - Bit 1: Valved Closed - Bit 2: Bypassed - Bit 3: Minimal Flow - Bit 4: Cap Loss - Bit 5: Valve Fault - Bit 6 : Flow Sensors Fault - Bit 7: Power OK - Bit 8: Metric - Bit 9: Outlet Temperature Fault - Bit 10: Outlet Temperature Alarm - Bit 11: Inlet Temperature Fault - Bit 12: Inlet Temperature Alarm - Bit 13: Temperature Sensors Fault - Bit 14: OK To Pull Cap - Bit 15: Secondary Leak Byte2-Byte3 (little endian and scaled up by 100): Inlet flow rate Byte4-Byte5 (little endian and scaled up by 100): Outlet flow rate Byte6-Byte7 (little endian and scaled up by 100): Inlet temperature Byte8-Byte9 (little endian and scaled up by 100): Outlet temperature Byte10-Byte11 : Reserved

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Modules (Continued)

» Submodule ID=11: 12-byte input

NAME	DESCRIPTION
Submodule Ident Number	0x00000030
Information	<p>Byte0-Byte1 (little endian): Statuses</p> <ul style="list-style-type: none"> - Bit 0: Adequate Flow - Bit 1: Valved Closed - Bit 2: Bypassed - Bit 3: Minimal Flow - Bit 4: Cap Loss - Bit 5: Valve Fault - Bit 6 : Flow Sensors Fault - Bit 7: Power OK - Bit 8: Metric - Bit 9: Outlet Temperature Fault - Bit 10: Outlet Temperature Alarm - Bit 11: Inlet Temperature Fault - Bit 12: Inlet Temperature Alarm - Bit 13: Temperature Sensors Fault - Bit 14: OK To Pull Cap - Bit 15: Secondary Leak <p>Byte2-Byte3 (little endian and scaled up by 100): Inlet flow rate</p> <p>Byte4-Byte5 (little endian and scaled up by 100): Outlet flow rate</p> <p>Byte6-Byte7 (little endian and scaled up by 100): Inlet temperature</p> <p>Byte8-Byte9 (little endian and scaled up by 100): Outlet temperature</p> <p>Byte10-Byte11 : Reserved</p>

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Modules (Continued)

Cyclic Input Data

NAME	DATA TYPE	DISPLAY AS BITS
Sensor status	Unsigned16	Bit 0: Adequate Flow Bit 1: Valve Closed Bit 2: Bypassed Bit 3: Minimal Flow Bit 4: Cap Loss Bit 5: Valve Fault Bit 6: Flow Sensors Fault Bit 7: Power OK Bit 8: Metric Bit 9: Outlet Temperature Fault Bit 10: Outlet Temperature Alarm Bit 11: Inlet Temperature Fault Bit 12: Inlet Temperature Alarm Bit 13: Temperature Sensors Fault Bit 14: OK To Pull Cap Bit 15: Secondary Leak
Inlet Flow Rate (scaled up by 100)	Unsigned16	No
Outlet Flow Rate (scaled up by 100)	Unsigned16	No
Inlet Temperature (scaled up by 100)	Unsigned16	No
Outlet Temperature (scaled up by 100)	Unsigned16	No
Reserved	Unsigned16	No

» Module ID=Output_Module: 2-byte output

ITEM	DESCRIPTION
Module Ident Number	0x00000031
Information	Byte0-Byte1 (little endian): Controls - Bit 0: Reset - Bit 1: Valve - Bit 2: Bypass

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Modules (Continued)

» Submodule ID=12: 2-byte output

NAME	DESCRIPTION
Module Ident Number	0x0001
Information	Byte0-Byte1 (little endian): Controls - Bit 0: Reset - Bit 1: Valve - Bit 2: Bypass

Cyclic Input Data

NAME	DATA TYPE	DISPLAY AS BITS
Controls	Unsigned16	Bit 0: Reset Bit 1: Valve Bit 2: Bypass

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Parameter of Modules

» Parameter ID=IDV_AdequateFlowStatus

VALUE	CONTENT
0	Flow rate is below flow alarm limit
1	Flow rate is above flow alarm limit

» Parameter ID=IDV_ValveClosedStatus

VALUE	CONTENT
0	Solenoid valve is open
1	Solenoid valve is closed

» Parameter ID=IDV_BypassedStatus

VALUE	CONTENT
0	Leak detection is enabled
1	Leak detection is disabled

» Parameter ID=IDV_MinimalFlowStatus

VALUE	CONTENT
0	Flow rate is below flow fault limit
1	Flow rate is above flow fault limit

» Parameter ID=IDV_CapLossStatus

VALUE	CONTENT
0	Normal operation
1	Cap-off

» Parameter ID=IDV_ValveFaultStatus

VALUE	CONTENT
0	Control valve is working OK
1	Control valve fails to shut off the flow

» Parameter ID=IDV_FlowSensorsFaultStatus

VALUE	CONTENT
0	Flow sensors are working OK
1	Flow sensors need to be maintained

» Parameter ID=IDV_PowerOkStatus

VALUE	CONTENT
0	Power supply is OFF
1	Power supply is OK

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Parameter of Modules (Continued)

» Parameter ID=IDV_OutletTemperatureFaultStatus

VALUE	CONTENT
0	Outlet temperature is below temperature fault limit
1	Outlet temperature is above temperature fault limit

» Parameter ID=IDV_OutletTemperatureAlarmStatus

VALUE	CONTENT
0	Outlet temperature is below temperature alarm limit
1	Outlet temperature is above temperature alarm limit

» Parameter ID=IDV_InletTemperatureFaultStatus

VALUE	CONTENT
0	Inlet temperature is below temperature fault limit
1	Inlet temperature is above temperature fault limit

» Parameter ID=IDV_InletTemperatureAlarmStatus

VALUE	CONTENT
0	Inlet temperature is below temperature alarm limit
1	Inlet temperature is above temperature alarm limit

» Parameter ID=IDV_TemperatureSensorsFaultStatus

VALUE	CONTENT
0	Temperature sensors are available
1	Temperature sensors are not available

» Parameter ID=IDV_OKToPullCapStatus

VALUE	CONTENT
0	Changing Cap is not OK
1	Changing Cap is OK

» Parameter ID=IDV_SecondaryLeakStatus

VALUE	CONTENT
0	Cap loss detected by the primary algorithm
1	Cap loss detected by the secondary algorithm

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Parameter of Modules (Continued)

» Parameter ID=IDV_TempWarningAlarmStatus

VALUE	CONTENT
Help Text	Outlet temperature is above temperature alarm limit

» Parameter ID=IDV_TempErrorAlarmStatus

VALUE	CONTENT
Help Text	Outlet temperature is above temperature fault limit

» Parameter ID=IDV_FlowWarningAlarmStatus

VALUE	CONTENT
Help Text	Flow rate is below flow alarm limit

» Parameter ID=IDV_FlowFaultAlarmStatus

VALUE	CONTENT
Help Text	Flow rate is below flow fault limit

» Parameter ID=IDV_CaplossAlarmStatus

VALUE	CONTENT
Help Text	Cap-off

» Parameter ID=IDV_ValvefaultAlarmStatus

VALUE	CONTENT
Help Text	Control valve fails to shut off the flow



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