PENTAIR

PENTAIR
HYGIENIC PROCESS VALVES
(FORMERLY KEYSTONE)

F783 EASYMIND CONTROL HEAD

FOOD & BEVERAGE PROCESS SOLUTIONS | PROCESS VALVE TECHNOLOGY

PENTAIR HYGIENIC PROCESS VALVES (Formerly KEYSTONE)

EASYMIND CONTROL HEAD

The F783 control head is an Automated Valve Interface Device (AVID) with integrated sensors and solenoid valve with a single connection to the PLC system. For DIGITAL (hard-wired) and BUS control interfaces.

GENERAL APPLICATIONS

- Dairies
- Breweries
- Wineries
- Canneries
- Food processing
- Pharmaceuticals
- Chemical
- Beverages
- Other industries

TECHNICAL DATA

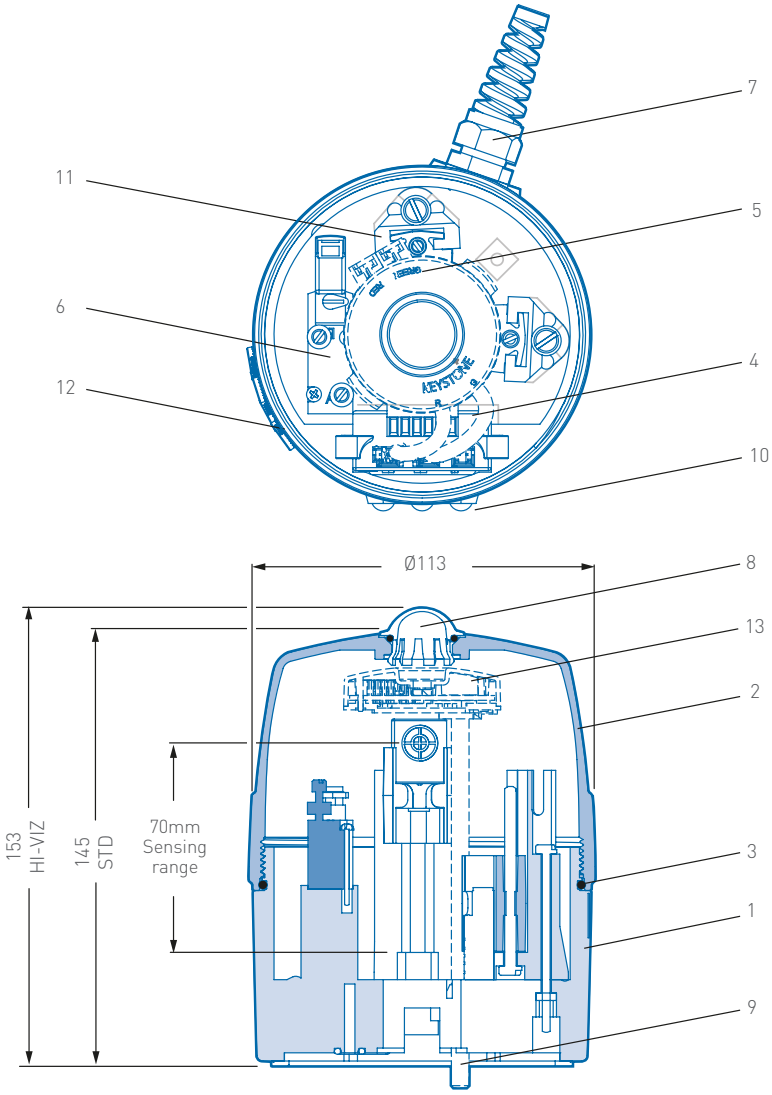
Control voltage:	24V dc, 24V ac, 110V ac
Operating temp.:	-10°C to +50°C (14°F to 122°F) (Non condensing)
Air pressure:	150 to 700kPa
Position sensor:	various
C_V:	0.2
Approvals:	
- ATEX (Via. Notified Body):	II 3G Ex nA II T4 II 3D Ex tD A22 IP65 T85°C
- IECEx:	Ex tD A22 IP65 T90°C 0°C to +50°C (32°F to 122°F) (Cert. No. IEC Ex ITA 11.0016X)

FEATURES

- 24V dc/ac, 110V ac or BUS specific voltages.
- World recognized BUS protocols.
- PENTAIR technology.
- Modular design.
- Single 5/2 solenoid valve (as standard).
- Bi-directional speed controls.
- Lockable manual override.
- Plug in control module, switches and solenoid.
- Linear and rotary configuration.
- Fully adjustable.
- Corrosion resistant materials.
- Robust IP65/67 enclosure.
- Enclosure safety vent.
- High visibility valve status LED indicators (side mounted).
- Optional HI-VIZ position LED indicator (top mounted; retrofittable).
- Hazardous area certification to Zone 22
- Optional Intrinsically Safe (IS) component option (non-certified assembly).
- Semi-conductive Nylon enclosure for Ex versions.
- Cable entry options PG7, PG9, M16, M20 (others on request).
- Low power consumption.
- Built-in short circuit protection.

PENTAIR
F783 EASYMIND CONTROL HEAD

TECHNICAL SPECIFICATIONS



NOTES

Air fittings 6mm STD. (¼" Option)

IN = Air inlet port
EX = Exhaust port
B = Outlet port B
A = Outlet port A

LED factory settings:

Red = Valve closed indication
Green = Valve open indication
Amber = Solenoid valve activated

PARTS LIST

No.	Description	Material		
		Standard version	HI-VIZ version	Ex version
1	Control head base	GF [1] Nylon (Black)	GF [1] Nylon (Black)	CF [2] Nylon (Black)
2	Control head cap	GF [1] Nylon (Black)	GF [1] Nylon (Black)	CF [2] Nylon (Black)
3	Control head O-ring	EPDM	EPDM	EPDM
4	Control module	Various	Various	Various
5	Position sensor (proximity type)	-	-	-
6	Solenoid valve	-	-	-
7	Cable glands	Polyamide	Polyamide	Various [3]
8	Relief valve (incl. HI-VIZ lens)	A.E.S / Nylon (Yellow)	Nylon (White)	A.E.S. (Blue) / CF [2] Nylon (Black)
9	Mounting fasteners	SS304 M6 x 30	M6 x 127	SS304 M6 x 30
10	LED lenses	Nylon (Clear)	Nylon (Clear)	Nylon (Clear)
11	Switch pillar	A.B.S.	A.B.S.	A.B.S.
12	Air fittings	Various	Various	Various
13	HI-VIZ module	-	Various	-

NOTE

1. GF Nylon = Glass filled Nylon (standard enclosures)
2. CF Nylon = Carbon filled Nylon (semi conductive Nylon; Ex enclosures only)
3. For cable gland details see nomenclature at last page

A.B.S. Acrylonitrile Butadiene Styrene
A.E.S. Acrylonitrile Ethylene Styrene

PENTAIR
F783 EASYMIND CONTROL HEAD

TECHNICAL SPECIFICATIONS

	Module types available						
Control head housing	**24V DC PNP**	**24V DC NPN**	**24V AC**	**110V AC**	**AS-I**	**D-Net**	**EEx I [4]**
Type	For linear and rotary actuators						
Ingress Protection Rating	IP65, IP67						IP65
Visual status indication	Yes						No
Impact / Drop test	IEC 61241						
Chemical resistant	Yes						Yes
Safety vented	Yes						Yes
Module	(See module specific tech sheet)						No module
Proximity sensor std.							
Type	Inductive						
Output function	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Closed
Short circuit protection	✓	✓	×	×	-	-	×
Supply voltage	10...30V DC	10...30V DC	20...140V AC	20...140V AC	10...30V DC	10...30V DC	7.5...30V DC
Voltage drop	< 3.0V at 100mA	< 3.0V at 100mA	< 5.0V at 200mA	< 5.0V at 200mA	< 3.0V at 100mA	< 3.0V at 100mA	-
Min. load current	-	-	5mA	5mA	-	-	-
Max. leakage current	< 0.01mA	< 0.01mA	< 0.8mA	< 0.8mA	-	-	< 1 mA
# Wires	3	3	2	2	3	3	2
No load current	< 7mA (Off)	< 7mA (Off)	< 0.8mA (Off)	< 0.8mA (Off)	< 7mA (Off)	< 7mA (Off)	-
Protection rating	IP67	IP67	IP67	IP67	IP67	IP67	IP65
Solenoid							
Model	SYJ5153	SYJ5153	SYJ5153	SYJ5153	SYJ5153	SYJ5153	[5] SYJ5153 + 302 pilot
Type	5 Port 2 Way						
Supply voltage	24V DC	24V DC	24V DC	110V AC	BUS power	BUS power	12V DC STD (24V Option)
Power consumption	0.4W	0.4W	0.4W	1.1W	0.4W	0.4W	0.5W
Lockable manual override	✓	✓	✓	✓	✓	✓	×
Air pressure diff. min./max.	150/700kPa (14.5/101.5psi)						
Ambient temperature	Max. 50°C (122°F)						
Allowable voltage	± 10% rated voltage						[6] -0%...+30%
C_v	0.19 - 0.21						
Protection rating	IP67	IP67	IP67	IP67	IP67	IP67	IP65

NOTES

- Control heads can be supplied in a number of different configurations, i.e. with or without solenoid or module and single or dual switching. Different types and makes of switches can also be fitted on request, i.e. proximity (std), reed or microswitch etc. the maximum temperature rating of the control head is limited by the solenoid, which is rated at 50°C (122°F).
- PENTAIR actuators are factory lubricated and do not need lubricated air. The use of synthetic oils and some mineral oils are known to be damaging to polymer components. PENTAIR therefore recommends that clean dry air be used.

4. Connection to certified intrinsically safe circuits with the max. values U = 15 V / I = 50 mA / P = 120 mW
   While the internal electrical components offered with this arrangement are all certified as Intrinsically Safe on a standalone basis, and the enclosure is made from a high grade anti-static semi conductive material. The complete assembly with these parts has not been assessed or certified as Intrinsically Safe. Therefore it is the end users responsibility to assess and accept this assembly as suitable for their individual application.
5. For EExI units the solenoid valve arrangement is a combination of the standard SYJ5153 valve with the coil replaced with a separately approved intrinsically safe 302 pilot valve/coil.
6. Coil designed for continuous duty within the maximum ambient temperature limits. The solenoid valve must be connected to a specific, approved power supply (safety barrier or interface) located in a safe area.

PENTAIR
F783 EASYMIND CONTROL HEAD DIGITAL 24V AC/DC MODULE

The F783/E Digital 24V AC/DC control module is for use in the F783 Easymind control head and is connected via hard-wired I/O directly to a PLC. This single module can be used for AC and DC (PNP/NPN) type of applications.

FEATURES

- Hard-wired I/O control system.
- Compatible with most common PLC's.
- Easy fit, with simple clip retainers.
- Single module for AC and DC applications.
- 2 limit switch/sensor inputs.
- 1 solenoid valve output.
- Plug-in switches and solenoid valves.
- Fully adjustable limit switches.
- Electronics conformal coated.
- Low power consumption, under 80mA in normal operational mode (solenoid valve energized, 1 input sensor on).
- Built-in short circuit protection to 250mA on any output.
- External LED indication of valve position and solenoid valve status.
- Customers preference for field connections.
    - Flying lead with connector.
    - Bulkhead fitted socket.
    - Open wiring system using cable gland (standard).

APPLICATION AREA
This device has been designed for use in any industry where hard-wired Digital control is desired, such as the food, beverage and pharmaceutical industries.

I/O CONNECTIONS

Note
Also see 'Wiring and connectors' paragraph

Hard-wired inputs
Input 1: Closed position sensor, red LED indication at front of module (3 wire connection)
Input 2: Open position sensor, green LED indication at front of module (3 wire connection)

Hard-wired output
Output 1: Main solenoid valve, amber LED indication at front of module (2 wire connection)

LED INDICATORS

Red (left): valve position indication
Indicates closed limit switch active (input 1).

Green (centre): valve position indication
Indicates open limit switch active (input 2).

Amber (right): solenoid valve
Indicates solenoid valve energized (output 1).

PENTAIR
F783 EASYMIND CONTROL HEAD DIGITAL 24V AC/DC MODULE

General characteristics	
Power supply	24V AC/DC (±10%)
Max. switching current	100 mA at 55°C (131°F)
Number of devices	limited by system power supply
1 input, no outputs (normal valve closed situation) Main solenoid valve OFF with 1 proximity ON	40mA
1 input, 1 output (normal valve open situation) Main solenoid valve ON with 1 proximity ON	80mA

ENCLOSURE ENVIRONMENT SPECIFICATIONS

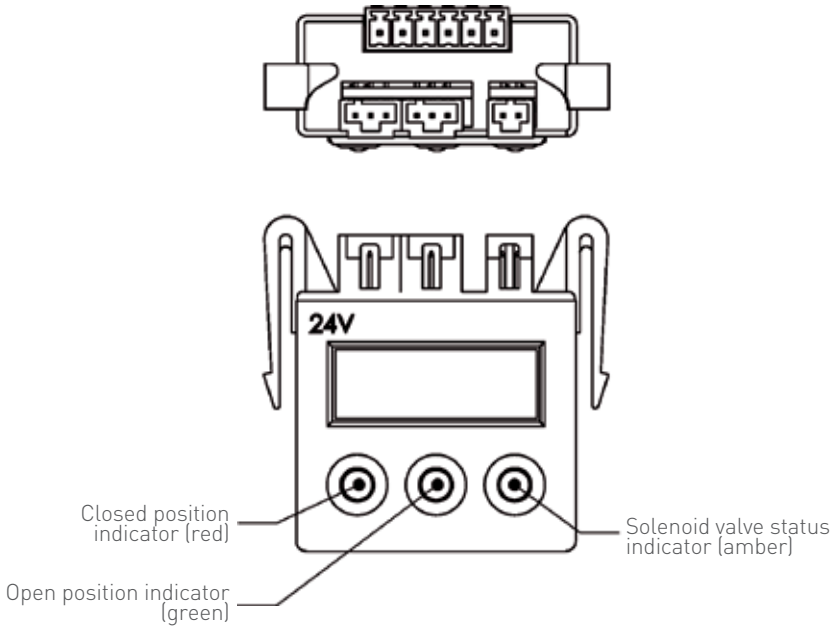
Operating temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Storage temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Protection class: See housing specifications
EMC directive: 89/336/EE

WIRING AND CONNECTORS

The 6-pin PHOENIX plug on the module is connected as follows:

Terminal	AC	DC(PNP)	DC(NPN)
1	P	+	-
2	N	-	+
3		Closed input signal	
4		Open input signal	
5		Solenoid valve (polarity NOT critical)	
6		Solenoid valve (polarity NOT critical)	

NOTE
If 5 core wire control is required, the negative (-) terminal of the solenoid valve may be connected via a suitable jumper, to the matching polarity terminal at 1 or 2 respectively.



PENTAIR
F783 EASYMIND CONTROL HEAD AS-INTERFACE MODULE

The F783/E AS-Interface control module is for use in the F783 Easymind control head and is connected via an AS-Interface master to a PLC.

FEATURES

- Fully AS-Interface version 3.0 compatible A/B slave device (max. 62 slaves).
- Easy fit, with simple clip retainers.
- 2 limit switch/sensor inputs.
- 3 solenoid valve outputs.
- Plug-in switches and solenoid valves.
- Fully adjustable limit switches.
- Electronics conformal coated.
- Low power consumption, under 70mA in normal operational mode (main solenoid valve energized, 1 input sensor active).
- BUS powered or external power option (selectable with jumper wires on module connector).
- Built-in short circuit protection to 200mA on any output.
- External LED indication of valve position, solenoid valve status and fault status.
- Customers preference for field connections.
    - Flying lead with connector.
    - Bulkhead fitted socket.
    - Open wiring system using standard cable gland

APPLICATION AREA
This device has been designed for use in any industry where simple BUS network control is desired, such as the food, beverage and pharmaceutical industries.

AS-INTERFACE 2 IN/3 OUT BIT-MAPPING

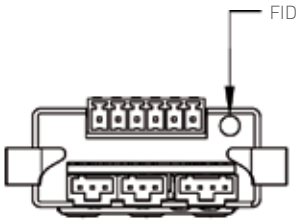
AS-Interface inputs

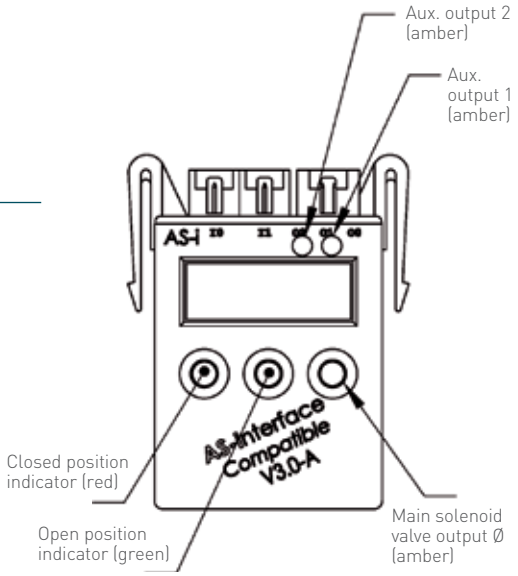
IØ (input Ø)*	Closed limit switch
I1 (input 1)*	Open limit switch

AS-Interface outputs

OØ (output Ø)*	Main solenoid valve
O1 (output 1)*	Auxiliary output 1
O2 (output 2)*	Auxiliary output 2

( )* Refers to the physical I/O labeling as referenced on the picture adjacent.





LED INDICATORS

Red (left): valve position indication
Indicates closed limit switch active (input Ø; IØ)*

Green (centre): valve position indication
Indicates open limit switch active (input 1; I1)*

Amber (right): main solenoid valve
Indicates main solenoid energized (output Ø; OØ)*

Amber small: optional solenoid valve
Indicates (output 1; O1)* is energized

Amber small: optional solenoid valve
Indicates (output 2; O2)* is energized

Red small: FID indication (On top of module, unlabeled)

This red indicator is active if the module does not have auxillary power connected (for example the jumpers are not installed) or if the address is = Ø

( )* Refers to the physical I/O labeling as referenced on the picture adjacent.

General characteristics	
Power supply (BUS standard)	30V DC
Number of slaves	62
Data cycle time for A+B slaves	10ms maximum
Typical load current situations in (mA)	
1 input, no outputs (normal valve closed situation) Main solenoid OFF with 1 proximity ON	35mA (34mA)*
1 input, 1 output (normal valve open situation) Main solenoid ON with 1 proximity ON	63.5mA (55mA)*
Recommended maximum power available for both additional auxiliary outputs O1 and O2 combined	120mA (200mA)*

( )* Denotes load with auxiliary power option

ENCLOSURE ENVIRONMENT SPECIFICATIONS

Operating temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Storage temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Protection class: See housing specifications
EMC directive: 89/336/EE

AS-INTERFACE CONFIGURATION

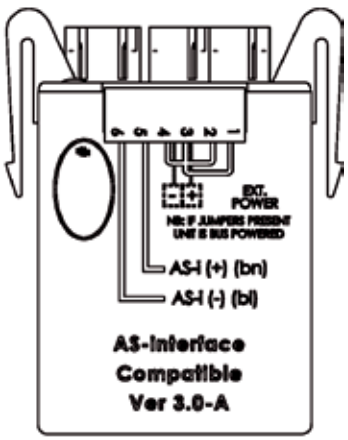
Device type I/O code = 7, ID code = A, ID1 = 0, ID2 = E			
I/O structure			
Input mask		Output mask	
Bit	Function	Bit	Function
0	Input 0	0	Output 0
1	Input 1	1	Output 1
2	Not used	2	Output 2
3	Not used	3	Not used

WIRING AND CONNECTORS

To power the module from the BUS, ensure jumper wires are installed from terminals 1 to 3, and 2 to 4.

NB: Jumpers are supplied and fitted as std. on all new control head assemblies.

To power the device from an auxiliary supply, remove the jumper from terminal 1 to 3 and connect 24V DC positive to terminal 3. Connect the supply negative to terminal 4, leaving the jumper from terminal 2 to 4 in place. Do not connect anything to terminal 1.



The 6-pin PHOENIX plug on the module is connected as follows:

Terminal	AS-Interface
1	Internal 30 V DC +ve (out)
2	Internal 30 V DC –ve (out)
3	External 30 V DC +ve (in)
4	External 30 V DC –ve (in)
5	BUS +ve (brown)
6	BUS –ve (blue)

PENTAIR
F783 EASYMIND CONTROL HEAD D-NET MODULE

The F783/E AS-Interface control module is for use in the F783 Easymind control head and is connected via an AS-Interface master to a PLC.

FEATURES

- Fully DeviceNet compatible group two slave device.
- Easy fit, with simple clip retainers.
- 2 limit switch/sensor inputs.
- 3 solenoid valve outputs.
- Plug-in switches and solenoid valves.
- Fully adjustable limit switches.
- Electronics conformal coated.
- Low power consumption, under 70 mA in normal operational mode (main solenoid valve energized, 1 input sensor active).
- Voltage booster for the input sensors and the outputs to 22 volts minimum.
- Internal open/closed limit fault timers.
- Reverse action option.
- Analogue and pulse counter input options.
- PENTAIR seal kit, valve and actuator assembly part numbers stored on-board the device. These can be re-defined by the user if required.
- User-configured maintenance data stored on-board.
- Users own part numbers for service components.
- User defined service flag.
- Proven CAN communication technology.
- Supports Change-of-State (COS) and polled messaging.
- Built-in short circuit protection to I(max) = 500mA (internal).
- External LED indication of valve position, solenoid valve, BUS and module status.
- Customers preference for field connections.
  - Flying lead with mini or micro connector.
  - Bulkhead fitted socket.
  - Open wiring system using standard cable gland.
- Permanent record on EEPROM of:
  - Total number of operations since manufacture.
  - Dates of last actuator and valve service.
  - Number of valve operations since last service.
  - Last open and close cycle times.
  - Average time of last 8 cycles.

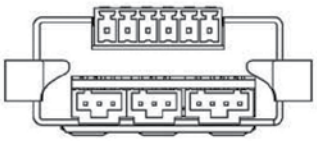
APPLICATION AREA
This device has been designed for use in any industry where a comprehensive BUS network control solution is desired, such as the food, beverage and pharmaceutical industries.

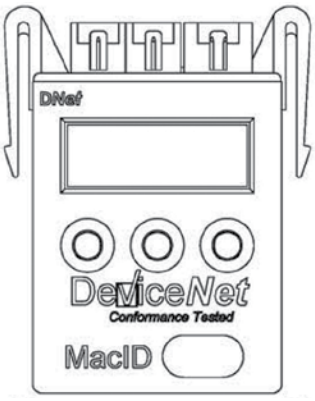
LED INDICATORS

Red (left): valve position indication
Indicates closed limit switch active (input 1).

Green (centre): valve position indication
Indicates open limit switch active (input 2).

Bicolor amber/red (right): BUS/module status.
Indicates BUS status and main solenoid valve active (output 1).





DEVICE INPUT MAP

The input status byte describes the state of the module inputs, service flag setting, FTC and FTO timers set, module low voltage alarm, and device failure alarm. The bit pattern is read as follows:

Bit Ø	Closed limit switch ON
Bit 1	Open limit switch ON
Bit 2	Service flag set
Bit 3	Double indication
Bit 4	Failed to open (within set time)
Bit 5	Failed to close (within set time)
Bit 6	Low voltage
Bit 7	Module failed

DEVICE OUTPUT MAP

The 8 bit output byte maps the following network commands to the device:

Bit Ø	Energize output 1
Bit 1	Energize output 2
Bit 2	Energize output 3
Bit 3	Initiate ESD function
Bit 4	Reset failed to open flag
Bit 5	Reset failed to close flag
Bit 6	Reset low voltage flag
Bit 7	Reset module failed flag

NOTES
Only output 1 is controlled by the ESD (Emergency Shut Down) command, the other 2 outputs remain as set in the program. The service flag is reset by writing a new service count value to parameter 13 either with a manager program, or via the PLC.

General characteristics	
Power supply (BUS standard)	11-25V DC
Signalling	CAN
Data rates	125K, 250K, 500K
Network length	500/250/100m at 125/250/500kBaud
Number of nodes	64
Modulation	Baseband
Encoding	NRZ with bit stuffing
Typical protocol efficiency	8%
Isolation	500V
Differential input impedance typical (recessive state) Shunt R = 25K Ohms (power on)	Shunt C = 5pF
Differential input impedance minimum (recessive state) Shunt R = 20K Ohms (power on)	Shunt C = 10pF
Absolute max. voltage range	-25 to +18V (CAN_H, CAN_L)
Max. recommended load current	250mA
Short circuit protection internal	350mA
Typical load current situations in (mA)	
No Output energized, 1 Input ON (normal 'valve-closed' state), supply voltage 24V	33.2mA
1 Output ON, 1 Input ON (normal 'valve-open' state), supply voltage 24V	44.0mA
1 Output ON, 1 Input ON (normal 'valve-open' state), supply voltage 12V	84.5mA

ENCLOSURE ENVIRONMENT SPECIFICATIONS

Operating temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Storage temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Protection class: See housing specifications

DEVICENET CONFIGURATION

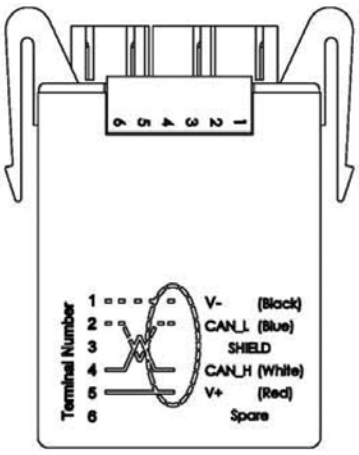
Device type: group 2 slave device

NOTE: For full details on module configuration see separate full DeviceNet feature list

WIRING AND CONNECTORS

The standard F783/E control head with its pig-tail cable gland will take the DeviceNet drop-line cable, allowing for quick and economical conversion from a hard-wired control system to a DeviceNet network.

Other field connection options available on request, of which std. options are shown at the bottom of the 'features' section above.



The 6-pin PHOENIX plug on the module is connected as follows:

Terminal	DeviceNet
1	V- (black)
2	CAN_L (blue)
3	Screen
4	CAN_H (white)
5	V+ (red)
6	Not used

NOTE:
This device requires a matching EDS (Electronic Data Sheet) to allow the network to recognise the device when connected.

The latest version of the EDS file can be obtained from our web site F783 Easymind downloads or any earlier versions from the factory, please contact your sales representative for further details.

PENTAIR
F783 EASYMIND CONTROL HEAD DIGITAL 110V AC MODULE

The F783/E Digital 110V AC control module is for use in the F783 Easymind control head and is connected by hard-wired I/O directly to a PLC.

FEATURES

- Hard-wired I/O control system.
- Compatible with most common PLC's.
- Easy fit, with simple clip retainers.
- 2 limit switch/sensor inputs.
- 1 solenoid valve output.
- Plug-in switches and solenoid valves.
- Fully adjustable limit switches.
- Electronics conformal coated.
- High visibility solenoid valve and valve status LED indicators.
- Low power consumption, under 25mA in normal operational mode (solenoid energized, 1 input sensor on).
- External LED indication of valve position and solenoid valve status.
- Customers preference for field connections.
    - Flying lead with connector.
    - Bulkhead fitted socket.
    - Open wiring system using standard cable gland.

APPLICATION AREA
This device has been designed for use in any industry where hard-wired Digital control is desired, such as the food, beverage and pharmaceutical industries.

HARD WIRED OUTPUTS

I/O connections

Note
Also see 'Wiring and connectors' paragraph

Hard-wired inputs
Input 1: Closed position sensor, red LED indication at front of module (2 wire device 3 wire connection)

Input 2: Open position sensor, green LED indication at front of module (2 wire device 3 wire connection)

Hard-wired output
Output 1: Main solenoid valve, amber LED indication at front of module (2 wire connection)

LED INDICATORS

Red (left): valve position indication
Indicates closed limit switch active (input 1).

Green (centre): valve position indication
Indicates open limit switch active (input 2).

Amber (right): solenoid valve
Indicates solenoid valve energized (output 1).

PENTAIR
F783 EASYMIND CONTROL HEAD DIGITAL 110V AC MODULE

General characteristics	
Power supply	110V AC, 50/60Hz
Max. switching current	100mA at 55°C (131°F)
Number of devices	limited by power supply
Typical load current situations in (mA)	
1 input, no outputs (normal valve closed situation) Main solenoid valve OFF with 1 proximity ON	11mA
1 input, 1 output (normal valve open situation) Main solenoid valve ON with 1 proximity ON	25mA

ENCLOSURE ENVIRONMENT SPECIFICATIONS

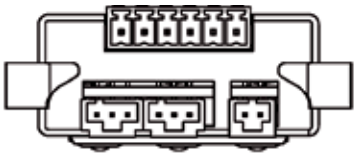
Operating temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Storage temperature: -10°C to +50°C (14°F to 122°F) (non condensing)
Protection class: See housing specifications

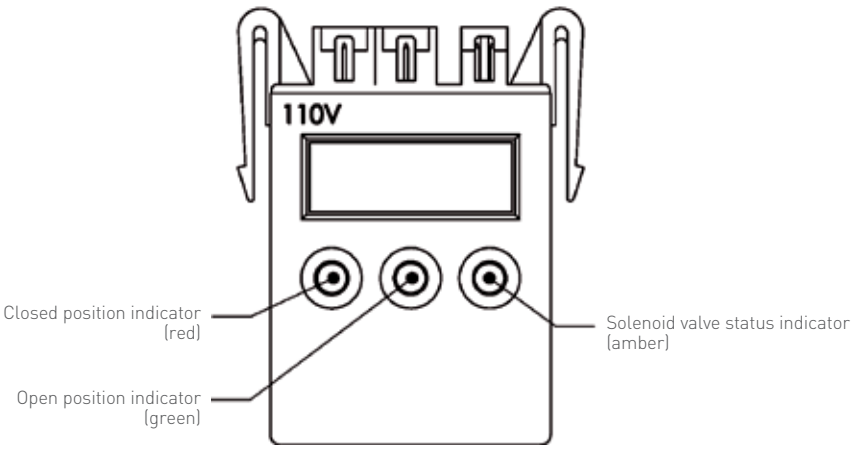
WIRING AND CONNECTORS

The 6-pin PHOENIX plug on the module is connected as

Terminal	Digital 110 V AC
1	Supply (P)
2	Supply (N)
3	Closed output signal
4	Open output signal
5	Solenoid (P)
6	Solenoid (N)

NOTE: If 5 core control is required, terminals 2 and 6 may be connected via a suitable jumper.





PENTAIR
F783 EASYMIND CONTROL HEAD

SELECTION GUIDE

Example:	F783E	24	DC	P	M	1SA	2PK	CGB	M	HV

Figure number
F783E

Module voltage/Module interface
24 24V (Std.)
110 110V
AS-I AS-Interface
D-NET DeviceNet
EEXI Intrinsically safe components

Voltage type: (specify for 24V and 110V only, otherwise leave blank)
DC DC (Std.)
AC AC

Junction type: (only relevant to DC rated heads, otherwise leave blank))
P PNP (Std)
N NPN

Interface connection
M Module included (Std.)
T Terminal block included
- If blank space filler used, module is not included

Number and type of solenoids: (e.g. 1S = 1 solenoid)
1SA 1 x 5/2 solenoid (Std.)
0SX No Solenoid but blanking plate fitted
- - - If blank space filler used, no blanking plate fitted

Number and type of sensors: (e.g. 2M = 2 micro switches)
- PK Proximity switch PENTAIR (Std.)
- - A Air switch
- - M Micro switch
- - N NAMUR sensor (6-12V DC input stated at highest input level)
- PI Proximity switch IFM
- - R Reed switc
- PS 11 mm Barrel proximity switch c/w 3M cables and SS body

Electrical connection: Primary
CG Cable gland supplied, specify type with one of the following letters

A	PG7	**C**	PG16	**E**	M20	**G**	PG16 c/w cable insert
B	PG9 (Std.)	**D**	M16	**F**	M25	**H**	M20 c/w cable insert

AMP Amphenol plug
BH4 4 Pin M12 bulkhead
BH5 5 Pin M12 bulkhead
BHV 4 Pin M12 bulkhead c/w Vampire
M20 Tapped to M20 thread only (no gland supplied) NB: All IEC Ex heads supplied without gland

Air connection style
M Metric tubing 6mm (Std.)
I Inch tubing ¼"
X Air ports blanked

Accessories or extender definer
HV High Visibility 360° LED Indication unit (Option)
ExtDA22 IEC Ex certified to Zone 22
ExII3G ATEX to Zone 2,22 (Notified Body Assessment Certification)
ExII3D ATEX to Zone 22 (Enclosure based Certification)
TR Tropicalised to reduce condensation effect

NOTE: * Connector types dependant on interface selected, custom options available upon request.
** Not all options are available on EExI version, consult factory/customer service for guidance.

PENTAIR FLOW CONTROL PACIFIC PTY LTD
12-14 KAIMIRO STREET, PUKETE INDUSTRIAL ESTATE, HAMILTON, 3200, NEW ZEALAND PACIFICNZHYGIENICSALES@PENTAIR.COM WWW.PENTAIR.COM