

842E EtherNet/IP Absolute Encoders



Dual Port Ethernet with Embedded Switch and DLR

Features and Benefits

- EtherNet/IP™ Interface with embedded switch for topology flexibility, including Device Level Ring (DLR)
- 30-bit resolution and endless shaft capability for precise applications
- IP65 protection for harsh environments
- Option to set the IP address via hardware switches, Dynamic Host Configuration Protocol (DHCP) or in the Add-On-Profile (AOP)
- Diverse form factors, including solid face mount flange, servo mount, keyed shaft and blind hollow shaft options
- ControlFLASH™ firmware for easy upgrades
- RSLogix 5000® AOP allows easy configuration of parameters:
 - Counting direction
 - Counts per revolution
 - Preset value
 - Velocity unit
 - IP address
 - Total Resolution Solid Shaft
 - Scaling



Allen-Bradley® encoders are a high-quality complement to Rockwell Automation PLC-based motion control. Our encoders provide absolute feedback for position control and high resolution incremental feedback for speed control. They also offer preferred compatibility with other Allen-Bradley servo positioning controls to deliver a complete application solution.

Dual Port EtherNet/IP Encoder

The latest addition to the Allen-Bradley offering is the 842E with industry-standard Ethernet/IP™ interface. This new encoder comes standard with dual port Ethernet and M12 connectors thus providing customers with an easy, money-saving installation. It also includes an embedded Ethernet/IP switch to connect additional E/IP capable product in series and/or support a DLR for Ethernet media redundancy.

Targeted for high performance and reliability in harsh industrial environments, the 842E Ethernet/IP encoder provides high resolution absolute positioning. Available in single-turn 18-bit resolution and multi-turn 30-bit resolution, this new high-resolution absolute encoder is ideal for automotive, material handling, general factory automation applications.

LISTEN.
THINK.
SOLVE.®

Product Selection

842E-CM – $\frac{S}{a}$ $\frac{IP}{b}$ $\frac{10}{c}$ $\frac{B}{d}$ $\frac{A}{e}$

a

Number of Turns	
Code	Description
S	Single-turn (1 turn)
M	Multi-turn (4096 turns)

b

Mechanical Interface	
Code	Description
1	Solid shaft 3/8 in.
2	Solid shaft 3/8 in. with flat
3	Solid shaft 10 mm
4	Solid shaft 10 mm with flat
5	Hollow shaft 1/4 in.
6	Hollow shaft 8 mm
7	Hollow shaft 3/8 in.
8	Hollow shaft 10 mm
9	Hollow shaft 12 mm
10	Hollow shaft 1/2 in.
11	Hollow shaft 14 mm
12	Hollow shaft 15 mm
13	Servo mount solid 6 mm with flat
14	Solid shaft 10 mm with key

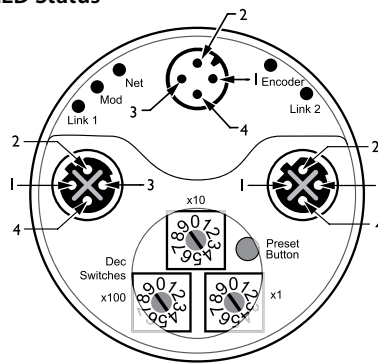
c

Connector	
Code	Description
B	M12 connector

d

Resolution	
Code	Description
A	262,144 (18-bit) steps per revolution

LED Status



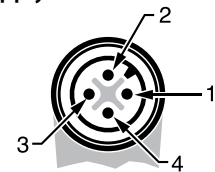
Pinout & Color Code

EtherNet/IP Pinout



Pin	Signal Name	Color Code	Pair Assignment
1	TXD+	White Orange	Pair 1
3	TXD-	Orange	
2	RXD+	White Green	Pair 2
4	RXD-	Green	

Power Supply Pinout




Warning: Do not use pins 2 and 4


Pin	Signal	Color Code	Pair Assignment
1	V _s	Brown	Supply voltage 10...32V DC
2	—	White	Do not use
3	GND	Blue	0V DC (ground)
4	—	Black	Do not use


Module Status LED	Short Description
OFF	No power
Green	Device operational
Green flashing	Standby
Red flashing	Minor fault
Red	Major fault
Green/red flashing	Self-test


Network Status LED	Short Description
OFF	No power/IP address
Green flashing	No connection
Green	Connected
Red flashing	Minor fault
Red	Major fault
Green/red flashing	Self-test
Encoder Status LED	Short Description
OFF	No power
Green flashing	Wrong parameter
Green	Device operational
Red flashing	Minor fault
Red	Major fault
Green/red flashing	Self-test


Link 1 Status LED	Short Description
OFF	No link/power off
Green solid	LINK
Amber solid	Port disabled
Green flashing	Port activity
Amber flashing	Collision
Link 2 Status LED	Short Description
OFF	No link/power off
Green solid	LINK
Amber solid	Port disabled
Green flashing	Port activity
Amber flashing	Collision

Flexible Couplings			
Description	Smallest Bore Diameter	Largest Bore Diameter	Catalog Number
	1/4 in.	1/4 in.	845-FC-A-A
	3/8 in.	3/8 in.	845-FC-B-B
	3/8 in.	1/2 in.	845-FC-B-C
	3/8 in.	10 mm	845-FC-B-T
	10 mm	10 mm	845-FC-T-T

Mounting Plates		
Description	Details	Catalog Number
	Integral coupling flange, high performance	845-MB-5
	BC48 Servo to square flange	845-MB-6
	0.1875 Servo to square flange	845-MB-7
	63 mm Face mount	845-MB-12

Mounting Brackets		
Description	Details	Catalog Number
	Clamp ring	845-MB-10
	60 mm 2-point stator coupling	845-MB-11

EtherNet Media		
Description	Length	Catalog Number
	1 m	1585D-M4TBJM-1
	2 m	1585D-M4TBJM-2
	5 m	1585D-M4TBJM-5
	10 m	1585D-M4TBJM-10
	15 m	1585D-M4TBJM-15

Cordsets & Patchcords		
Description	Length	Catalog Number
	1 m	889D-F4ACDM-1
	2 m	889D-F4ACDM-2
	3 m	889D-F4ACDM-3
	5 m	889D-F4ACDM-5
	10 m	889D-F4ACDM-10

Learn more about *842E EtherNet/IP Absolute Encoders* on ab.com.

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