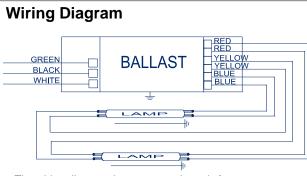


ICN-2S28-T@120						
Brand Name CENTIUM T5						
Ballast Type	Electronic					
Starting Method	Programmed Start					
Lamp Connection	Series					
Input Voltage	120-277					
Input Frequency	50/60 HZ					
Status	Active					

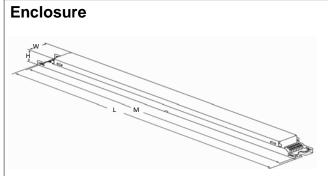
Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (۴/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	1	14	0/-18	0.14	17	1.07	15	0.98	1.7	6.29
F14T5	2	14	0/-18	0.27	32	1.06	10	0.98	1.7	3.31
F21T5	1	21	0/-18	0.19	23	1.03	15	0.98	1.7	4.48
F21T5	2	21	0/-18	0.38	46	1.02	10	0.98	1.7	2.22
F28T5	1	28	0/-18	0.27	31	1.00	10	0.98	1.7	3.23
* F28T5	2	28	0/-18	0.51	62	1.00	10	0.98	1.7	1.61
F28T5/ES (25W)	1	25	0/-18	0.24	28	1.00	10	0.98	1.7	3.57
F28T5/ES (25W)	2	25	0/-18	0.47	56	1.00	10	0.98	1.7	1.79
F35T5	1	35	0/-18	0.34	39	1.00	10	0.98	1.7	2.56
F35T5	2	35	0/-18	0.64	77	1.00	10	0.98	1.7	1.30



The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.			in.	cm.
Black	0	0		Yellow/Blue		0
White	0	0		Blue/White		0
Blue	0	0		Brown		0
Red	0	0		Orange		0
Yellow	0	0	(Orange/Black		0
Gray	0	0		Black/White		0
Violet		0		Red/White		0
VIOIEL		0				



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
14.17 "	1.18 "	1.06 "	13.78 "
14 17/100	1 9/50	1 3/50	13 39/50
36 cm	3 cm	2.7 cm	35 cm



Revised 05/31/13

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ICN-2S28-T@120						
Brand Name	CENTIUM T5					
Ballast Type	Electronic					
Starting Method	Programmed Start					
Lamp Connection	Series					
Input Voltage	120-277					
Input Frequency	50/60 HZ					
Status	Active					

1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.

1.2 Ballast shall be provided with integral leads or poke-in wire trap connectors color-coded per ANSI C82.11.

Section II - Performance

Notes:

2.1 Ballast shall be Programmed Start.

2.2 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.3 Ballast shall operate from 50/60 Hz input source of ______ (120V through 277V, 347V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).

2.4 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.

2.5 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.6 Ballast shall have a minimum ballast factor of 1.0 for primary lamp application.

2.7 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.

2.8 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.

2.9 Ballast shall have a Class A sound rating.

2.10 Ballast shall have a minimum starting temperature of ______ {-18C (0F) or -29C (-20F)} for primary lamp. Consult lamp manufacturer for temperature versus light output characteristics.

2.11 Ballast shall provide Lamp EOL Protection Circuit.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

2.13 Four-lamp ballast shall have (semi-independent or independent) lamp operation.

Section III - Regulatory

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

3.5 Ballast shall comply with applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.6 Ballast shall comply with UL Type CC rating.

3.7 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.

4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C. Ballasts with a "90C" designation in their catalog number shall also carry a three-year warranty at a maximum case temperature of 90C.

4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.



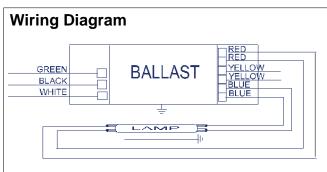
Revised 05/31/13

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ICN-2S28-T@120						
Brand Name CENTIUM T5						
Ballast Type	Electronic					
Starting Method	Programmed Start					
Lamp Connection	Series					
Input Voltage	120-277					
Input Frequency	50/60 HZ					
Status	Active					

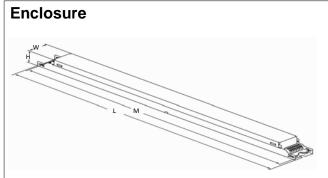
Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (۴/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	1	14	0/-18	0.14	17	1.07	15	0.98	1.7	6.29
F14T5	2	14	0/-18	0.27	32	1.06	10	0.98	1.7	3.31
F21T5	1	21	0/-18	0.19	23	1.03	15	0.98	1.7	4.48
F21T5	2	21	0/-18	0.38	46	1.02	10	0.98	1.7	2.22
* F28T5	1	28	0/-18	0.27	31	1.00	10	0.98	1.7	3.23
F28T5	2	28	0/-18	0.51	62	1.00	10	0.98	1.7	1.61
F28T5/ES (25W)	1	25	0/-18	0.24	28	1.00	10	0.98	1.7	3.57
F28T5/ES (25W)	2	25	0/-18	0.47	56	1.00	10	0.98	1.7	1.79
F35T5	1	35	0/-18	0.34	39	1.00	10	0.98	1.7	2.56
F35T5	2	35	0/-18	0.64	77	1.00	10	0.98	1.7	1.30



For 1 lamin on eration, do not use vallow leads The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray	0	0	Black/White		0
Violet		0	Red/White		0
VIOIEL		0	-	•	·



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
14.17 "	1.18 "	1.06 "	13.78 "
14 17/100	1 9/50	1 3/50	13 39/50
36 cm	3 cm	2.7 cm	35 cm



Revised 05/31/13

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ICN-2S28-T@120						
Brand Name	CENTIUM T5					
Ballast Type	Electronic					
Starting Method	Programmed Start					
Lamp Connection	Series					
Input Voltage	120-277					
Input Frequency	50/60 HZ					
Status	Active					

1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.

1.2 Ballast shall be provided with integral leads or poke-in wire trap connectors color-coded per ANSI C82.11.

Section II - Performance

Notes:

2.1 Ballast shall be Programmed Start.

2.2 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.3 Ballast shall operate from 50/60 Hz input source of ______ (120V through 277V, 347V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).

2.4 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.

2.5 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.6 Ballast shall have a minimum ballast factor of 1.0 for primary lamp application.

2.7 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.

2.8 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.

2.9 Ballast shall have a Class A sound rating.

2.10 Ballast shall have a minimum starting temperature of ______ {-18C (0F) or -29C (-20F)} for primary lamp. Consult lamp manufacturer for temperature versus light output characteristics.

2.11 Ballast shall provide Lamp EOL Protection Circuit.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

2.13 Four-lamp ballast shall have (semi-independent or independent) lamp operation.

Section III - Regulatory

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

3.5 Ballast shall comply with applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.6 Ballast shall comply with UL Type CC rating.

3.7 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.

4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C. Ballasts with a "90C" designation in their catalog number shall also carry a three-year warranty at a maximum case temperature of 90C.

4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.



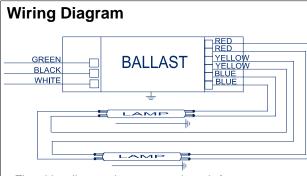
Revised 05/31/13

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ICN-2S28-T@277						
Brand Name CENTIUM T5						
Ballast Type	Electronic					
Starting Method	Programmed Start					
Lamp Connection	Series					
Input Voltage	120-277					
Input Frequency	50/60 HZ					
Status	Active					

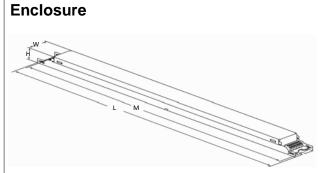
Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (۴/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	1	14	0/-18	0.07	18	1.07	15	0.90	1.7	5.94
F14T5	2	14	0/-18	0.12	32	1.06	10	0.95	1.7	3.31
F21T5	1	21	0/-18	0.09	23	1.03	15	0.95	1.7	4.48
F21T5	2	21	0/-18	0.17	45	1.02	10	0.98	1.7	2.27
F28T5	1	28	0/-18	0.12	31	1.00	10	0.95	1.7	3.23
* F28T5	2	28	0/-18	0.23	61	1.00	10	0.98	1.7	1.64
F28T5/ES (25W)	1	25	0/-18	0.11	28	1.00	10	0.95	1.7	3.57
F28T5/ES (25W)	2	25	0/-18	0.20	55	1.00	10	0.98	1.7	1.82
F35T5	1	35	0/-18	0.15	39	1.00	10	0.95	1.7	2.56
F35T5	2	35	0/-18	0.28	75	1.00	10	0.95	1.7	1.33



The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray	0	0	Black/White		0
Violet		0	Red/White		0
VIOIEL		0			



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
14.17 "	1.18 "	1.06 "	13.78 "
14 17/100	1 9/50	1 3/50	13 39/50
36 cm	3 cm	2.7 cm	35 cm



Revised 05/31/13

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ICN-2S28-T@277				
Brand Name	CENTIUM T5			
Ballast Type	Electronic			
Starting Method	Programmed Start			
Lamp Connection	Series			
Input Voltage	120-277			
Input Frequency	50/60 HZ			
Status	Active			

1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.

1.2 Ballast shall be provided with integral leads or poke-in wire trap connectors color-coded per ANSI C82.11.

Section II - Performance

Notes:

2.1 Ballast shall be Programmed Start.

2.2 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.3 Ballast shall operate from 50/60 Hz input source of ______ (120V through 277V, 347V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).

2.4 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.

2.5 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.6 Ballast shall have a minimum ballast factor of 1.0 for primary lamp application.

2.7 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.

2.8 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.

2.9 Ballast shall have a Class A sound rating.

2.10 Ballast shall have a minimum starting temperature of ______ {-18C (0F) or -29C (-20F)} for primary lamp. Consult lamp manufacturer for temperature versus light output characteristics.

2.11 Ballast shall provide Lamp EOL Protection Circuit.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

2.13 Four-lamp ballast shall have (semi-independent or independent) lamp operation.

Section III - Regulatory

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

3.5 Ballast shall comply with applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.6 Ballast shall comply with UL Type CC rating.

3.7 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.

4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C. Ballasts with a "90C" designation in their catalog number shall also carry a three-year warranty at a maximum case temperature of 90C.

4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.



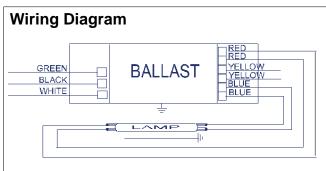
Revised 05/31/13

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ICN-2S28-T@277				
Brand Name	CENTIUM T5			
Ballast Type	Electronic			
Starting Method	Programmed Start			
Lamp Connection	Series			
Input Voltage	120-277			
Input Frequency	50/60 HZ			
Status	Active			

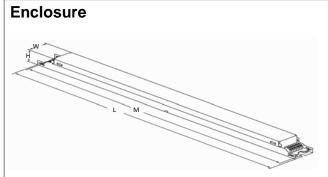
Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (۴/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	1	14	0/-18	0.07	18	1.07	15	0.90	1.7	5.94
F14T5	2	14	0/-18	0.12	32	1.06	10	0.95	1.7	3.31
F21T5	1	21	0/-18	0.09	23	1.03	15	0.95	1.7	4.48
F21T5	2	21	0/-18	0.17	45	1.02	10	0.98	1.7	2.27
* F28T5	1	28	0/-18	0.12	31	1.00	10	0.95	1.7	3.23
F28T5	2	28	0/-18	0.23	61	1.00	10	0.98	1.7	1.64
F28T5/ES (25W)	1	25	0/-18	0.11	28	1.00	10	0.95	1.7	3.57
F28T5/ES (25W)	2	25	0/-18	0.20	55	1.00	10	0.98	1.7	1.82
F35T5	1	35	0/-18	0.15	39	1.00	10	0.95	1.7	2.56
F35T5	2	35	0/-18	0.28	75	1.00	10	0.95	1.7	1.33



For 1 lamin on eration, do not use vallow leads The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray	0	0	Black/White		0
Violet		0	Red/White		0
VIOlet		0			



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
14.17 "	1.18 "	1.06 "	13.78 "
14 17/100	1 9/50	1 3/50	13 39/50
36 cm	3 cm	2.7 cm	35 cm



Revised 05/31/13

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ICN-2S28-T@277				
Brand Name	CENTIUM T5			
Ballast Type	Electronic			
Starting Method	Programmed Start			
Lamp Connection	Series			
Input Voltage	120-277			
Input Frequency	50/60 HZ			
Status	Active			

1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.

1.2 Ballast shall be provided with integral leads or poke-in wire trap connectors color-coded per ANSI C82.11.

Section II - Performance

Notes:

2.1 Ballast shall be Programmed Start.

2.2 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.3 Ballast shall operate from 50/60 Hz input source of ______ (120V through 277V, 347V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).

2.4 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.

2.5 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.6 Ballast shall have a minimum ballast factor of 1.0 for primary lamp application.

2.7 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.

2.8 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.

2.9 Ballast shall have a Class A sound rating.

2.10 Ballast shall have a minimum starting temperature of ______ {-18C (0F) or -29C (-20F)} for primary lamp. Consult lamp manufacturer for temperature versus light output characteristics.

2.11 Ballast shall provide Lamp EOL Protection Circuit.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

2.13 Four-lamp ballast shall have (semi-independent or independent) lamp operation.

Section III - Regulatory

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

3.5 Ballast shall comply with applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.6 Ballast shall comply with UL Type CC rating.

3.7 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.

4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C. Ballasts with a "90C" designation in their catalog number shall also carry a three-year warranty at a maximum case temperature of 90C.

4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.



Revised 05/31/13

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