

# Kurt J. Lesker<sup>®</sup> Company

## Accessory part number and connection schematics for KJLC<sup>®</sup> MGC 4000 Multi- Gauge Controller



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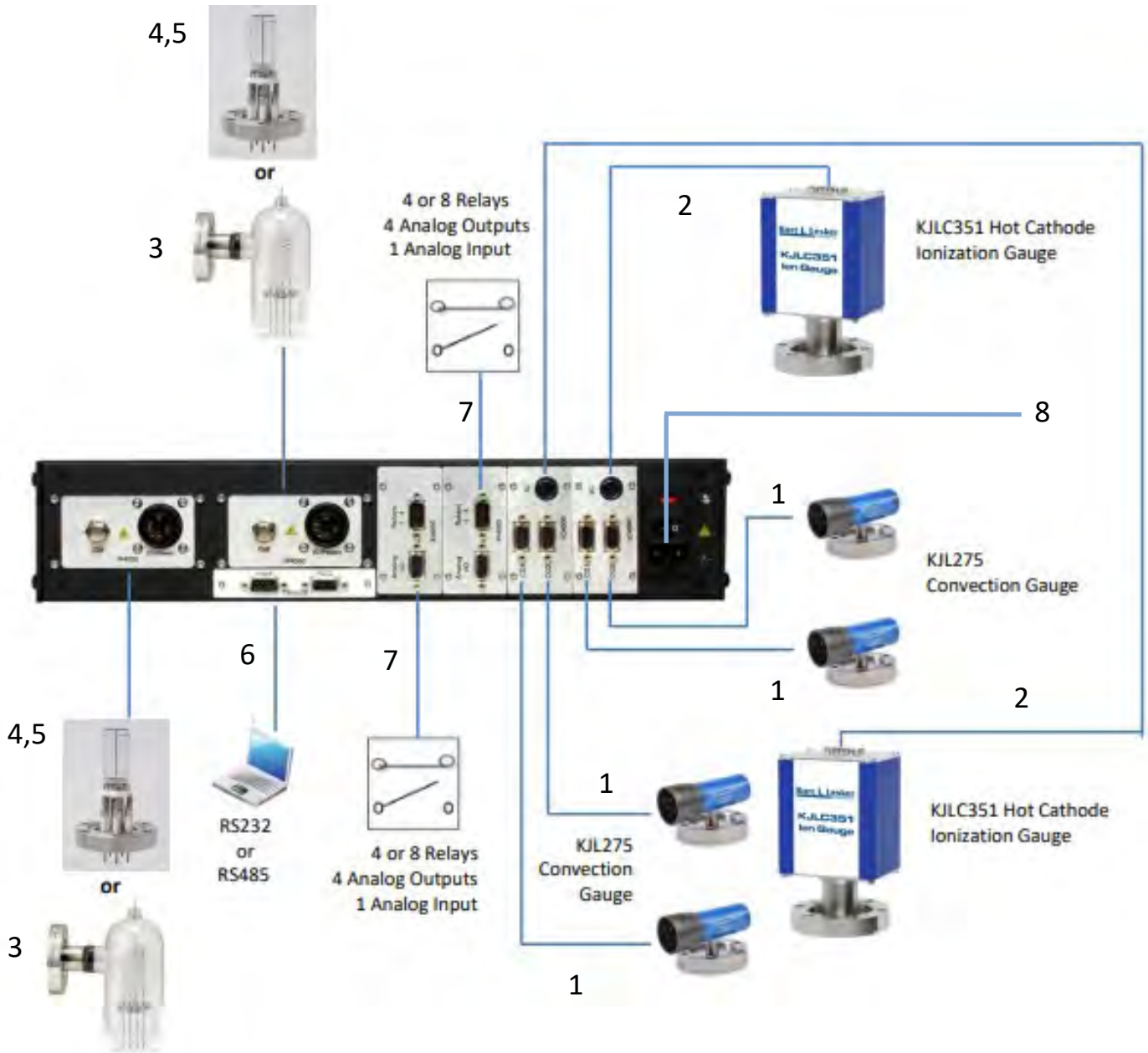
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# MGC 4000 Cable Schematic



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# MGC 4000 Ordering Information

## MGC 4000 Part Number Configuration

### Option Card selection

Complete Catalog Number:

MGC - # - # - # - # - # - # - #

#### Card slot 1

IC = IC4000 card operates 2 convection and 1 KJLC351 ion gauge  
 AI4 = AI4000-4 card provides 4 setpoint relays, 4 analog outputs, 1 analog input  
 AI8 = AI4000-8 card provides 8 setpoint relays, 4 analog outputs, 1 analog input  
 X = None

IC  
 AI4  
 AI8  
 X

#### Card slot 2

Same options as listed for slot 1 above. Select one of the following: IC, AI4, AI8 or X

IC, AI4, AI8 or X

#### Card slot 3

AI4 = AI4000-4 card provides 4 setpoint relays, 4 analog outputs, 1 analog input  
 AI8 = AI4000-8 card provides 8 setpoint relays, 4 analog outputs, 1 analog input  
 X = None

AI4  
 AI8  
 X

#### Card slot 4

Same options as listed for slot 3 above. Select one of the following: AI4, AI8 or X

AI4, AI8 or X

#### Card slot 5

IR = IR4000 card operates one I<sup>2</sup>R degas B-A ion gauge  
 IE = IE4000 card operates one EB Degas B-A ion gauge  
 X = None

IR  
 IE  
 X

#### Card slot 6

IR = IR4000 card operates one I<sup>2</sup>R Degas B-A ion gauge  
 IE = IE4000 card operates one EB Degas B-A ion gauge  
 X = None

IR  
 IE  
 X

#### Card slot 7

CM = CM4000 card provides RS232/485 serial communication  
 X = None

CM  
 X

\* Maximum of two IC (IC4000) and two AI4 (AI4000-4) or AI8 (AI4000-8) option cards per MGC controller is possible.

\*\* MGC will operate two glass-enclosed or nude, classic size I<sup>2</sup>R or EB degas B-A IG's simultaneously.

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## MGC 4000 Ordering Information

<b>Cable 1: KJLC 275 Convection Gauge (up to 4x required)</b>		
<b>Cable Length</b>	<b>Cable Part Number</b>	<b>KJL275 Cable</b>
10 ft (3m)	CB421-1-10F	
25 ft (8m)	CB421-1-25F	
50 ft (15m)	CB421-1-50F	
>50 ft	Consult Factory	

<b>Cable 2: KJLC 351 Hot Filament Ion Gauge (up to 2x required)</b>		
<b>Cable Length</b>	<b>Cable Part Number</b>	<b>KJLC351 Cable</b>
10 ft (3m)	BXC400-1-10F	
25 ft (8m)	BXC400-1-25F	
50 ft (15m)	BXC400-1-50F	
>50 ft	Consult Factory	

<b>Cable 3: KJLC Glass Hot Filament Ion Gauge (up to 2x required)</b>		
<b>Cable Length</b>	<b>Cable Part Number</b>	<b>Glass IG Cable</b>
10 ft (3m)	IRG441-1-10F	
25 ft (8m)	IRG441-1-25F	
50 ft (15m)	IRG441-1-50F	
>50 ft	Consult Factory	

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## MGC 4000 Ordering Information

<b>Cable 4: KJLC Nude Hot Filament Ion Gauge (up to 2x required)</b>		
Cable Length	Cable Part Number	Nude IG Cable
10 ft (3m)	IRN441-1-10F	
25 ft (8m)	IRN441-1-25F	
50 ft (15m)	IRN441-1-50F	
>50 ft	Consult Factory	

<b>Cable 5: KJLC Nude Bakeable Hot Filament Ion Gauge (up to 2x required)</b>		
Cable Length	Cable Part Number	Nude IG Bakeable Cable with push-on sockets
10 ft (3m)	IRNBD441-1-10F	
25 ft (8m)	IRNBD441-1-25F	
50 ft (15m)	IRNBD441-1-50F	
>50 ft	Consult Factory	

<b>Cables 6 and 7: RS232/RS485 and I/O</b>
Customer Fabricated, pinouts in manual

<b>Cable 8: Power Cable (1x required)</b>
NEMA 5-15P/IEC60321-1 C14 power cord set provided. Other regional cables provided by end user

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## MGC 4000 Ordering Information

<b>Compatible Gauges with Cable 1: (up to 2x required)</b>		
<b>Gauge Type</b>	<b>Flange</b>	<b>Part Number</b>
Convection Enhanced Pirani	1/8" NPT	KJL275071
Convection Enhanced Pirani	KF16	KJL275203
Convection Enhanced Pirani	KF25	KJL275196
Convection Enhanced Pirani	KF40	KJL275316
Convection Enhanced Pirani	DN16CF	KJL275256
Convection Enhanced Pirani	DN40CF	KJL275238
Convection Enhanced Pirani	4 VCR Female	KJL275185
Convection Enhanced Pirani	8 VCR Female	KJL275282

<b>Compatible Gauges with Cable 2: (up to 2x required)</b>		
<b>Gauge Type</b>	<b>Flange</b>	<b>Part Number</b>
Hot Filament Ion Gauge	KF16	KJLC351400YB
Hot Filament Ion Gauge	KF25	KJLC351400YC
Hot Filament Ion Gauge	KF40	KJLC351400YD
Hot Filament Ion Gauge	DN16CF	KJLC351400YE
Hot Filament Ion Gauge	DN35CF-DN40CF	KJLC351400YF

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## MGC 4000 Ordering Information

**Compatible Gauges with Cable 3: (up to 2x required)**  
**(contact KJLC for compatible gauges from other manufacturers)**

Technology	Filament Type	Flange	Part Number
Glass Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G075F
Glass Hot Filament Ion Gauge	3/4" O.D. Kovar Tube	Thoria-Coated Iridium	G075K
Glass Hot Filament Ion Gauge	3/4" O.D. Kovar Tube	Thoria-Coated Iridium	G075K-PT
Glass Hot Filament Ion Gauge	3/4" O.D. Borosilicate Glass Tube	Thoria-Coated Iridium	G075N
Glass Hot Filament Ion Gauge	3/4" O.D. Kovar Tube	Tungsten	G075TK
Glass Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G100F
Glass Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G100F-PT
Glass Hot Filament Ion Gauge	1.0" O.D. Kovar Tube	Thoria-Coated Iridium	G100K
Glass Hot Filament Ion Gauge	1.0" O.D. Kovar Tube	Thoria-Coated Iridium	G100K-PT
Glass Hot Filament Ion Gauge	KF25	Thoria-Coated Iridium	G100KQF25

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## MGC 4000 Ordering Information

### Compatible Gauges with Cable 3 cont.: (up to 2x required) (contact KJLC for compatible gauges from other manufacturers)

Technology	Filament Type	Flange	Part Number
Glass Hot Filament Ion Gauge	KF40	Thoria-Coated Iridium	G100KQF40
Glass Hot Filament Ion Gauge	1.0" O.D. Borosilicate Glass Tube	Thoria-Coated Iridium	G100N
Glass Hot Filament Ion Gauge	1.0" O.D. Borosilicate Glass Tube	Thoria-Coated Iridium	G100N-PT
Glass Hot Filament Ion Gauge	DN35CF-DN40CF	Tungsten	G100TF
Glass Hot Filament Ion Gauge	1.0" O.D. Kovar Tube	Tungsten	G100TK
Glass Hot Filament Ion Gauge	1/2" O.D. 7052 Glass Tube	Tungsten	GX050-015-2
Glass Hot Filament Ion Gauge	3/4" O.D. 7052 Glass Tube	Tungsten	GX075-016-2
Glass Hot Filament Ion Gauge	3/4" O.D. Borosilicate Glass Tube	Tungsten	GX075-016-P
Glass Hot Filament Ion Gauge	1.0" O.D. 7052 Glass Tube	Tungsten	GX100-017-2
Glass Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	GX100-564F
Glass Hot Filament Ion Gauge	1.0" O.D. Kovar Tube	Thoria-Coated Iridium	GX100-564K
Glass Hot Filament Ion Gauge	1.0" O.D. Borosilicate Glass Tube	Thoria-Coated Iridium	GX100-564N

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## MGC 4000 Ordering Information

**Compatible Gauges with Cables 4 and 5: (up to 2x required)  
(contact KJLC for compatible gauges from other manufacturers)**

Technology	Filament Type	Flange	Part Number
Nude Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G8120-A
Nude Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G8140
Nude Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G8140-DI
Nude Hot Filament Ion Gauge	DN35CF-DN40CF	Tungsten	G8140-DT
Nude UHV Hot Filament Ion Gauge	DN35CF-DN40CF	Thoria-Coated Iridium	G8130
Nude UHV Hot Filament Ion Gauge	DN35CF-DN40CF	Tungsten	G8130T

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