duTec's remote I/O products give you the
VERSATILITY, FLEXIBILITY & COMPATIBILITY
interface with virtually anything!

duTec

With the most comprehensive variety of modules in the industry, duTec's advanced engineering lets you interface with virtually any sensor or actuator of any process.

ANALOG MODULES

ANALOG INPUT MODULES		Range	Resolution (12 bits)	Input Res. nom. ohms	Accuracy @25°C	Drift ppm/°C Gain	Offset	Connect Color	Notes	Figure
Voltage	IV25M	0-25mVdc	6.10 μV	100K	±0.1%FS	55	20			K
	IV50M	0-50mVdc	12.21 μV	100K	±0.1%FS	55	20			K
	IV100M	0-100mVdc	24.41 μV	100K	±0.1%FS	55	20			K
	IV250M	0-250mVdc	61.04 μV	100K	±0.1%FS	55	20			K
	IV500M	0-500mVdc	122.07 μV	100K	±0.1%FS	55	20			K
	IV1	0-1Vdc	0.24 μV	100K	±0.1%FS	55	20			K
	IV5	0-5Vdc	1.22 μV	100K	±0.1%FS	55	20			K
	IV5B	-5-5Vdc	2.44 mV	100K	±0.1%FS	55	20		Bipolar	K
	IV10	0-10Vdc	2.44 mV	100K	±0.1%FS	55	20			K
	IV10B	-10-10Vdc	4.88 mV	100K	±0.1%FS	55	20		Bipolar	K
	IV30	0-30Vdc	7.32 mV	100K	±0.1%FS	55	20			K
	IVAC	0-140Vac	34.20 mVac	1.5Meg	±0.1%FS	55	20	70.7%	averaged peak	K
	IVAC-A	0-280Vac	68.40 mVac	1.5Meg	±0.1%FS	55	20	70.7%	averaged peak	K
Current	II420	4-20 mAdc	3.91 μV	170	±0.1%FS	55	20		275 ohm maximum loop resistance	G
	II420S	4-20 mAdc	3.91 μV	170	±0.1%FS	55	20		Provides loop current into <500 ohms	F
	IIAC5	0-5 Adc	1.22 mA	0.02	±0.1%FS	55	20		Current transformer used for >5 Adc	D

Thermocouples- cold junction compensated, linearized by duTec I/O controllers

Temperature		Range		Resolution		Accuracy		Connect Color	Notes	Figure
	ITCE	0-435°C	32-815°F	0.11°C	.19°F	±3°C	±5°F	Purple	All thermocouples	J
	ITCJ	0-700°C	32-1292°F	0.17°C	.31°F	±3°C	±5°F	Black	include mating connector	J
	ITCJ-1	-80-750°C	-112-1382°F	0.20°C	.36°F	±3°C	±5°F	Black	for sensor	J
	ITCK	-100-924°C	-148-1695°F	0.25°C	.45°F	±3°C	±5°F	Yellow	to module connection.	J
	ITCK-1	-100-1250°C	-166-2282°F	0.28°C	.60°F	±3°C	±5°F	Yellow		J
	ITCR	0-960°C	32-1760°F	0.23°C	.42°F	±3°C	±5°F	Green		J
	ITCR-1	0-1760°C	32-3200°F	0.43°C	.77°F	±3°C	±5°F	Green		J
	ITCS	0-1034°C	32-1893°F	0.25°C	.45°F	±3°C	±5°F	Green		J
	ITCS-1	0-1760°C	32-3200°F	0.43°C	.77°F	±3°C	±5°F	Green		J
	ITCT	-200-224°C	-328-435°F	0.10°C	.19°F	±3°C	±5°F	Blue		J
	ITCT-1	-120-400°C	-184-752°F	0.13°C	.23°F	±3°C	±5°F	Blue		J
	ITCT-2	0-150°C	32-302°F	0.04°C	.07°F	±3°C	±5°F	Blue		J
RTDs	ITR100	-50-350°C	-58-662°F	0.10°C	.18°F	100 ± 0.8°C ± 1.4°F		White		B
	ITR100-1	0-100°C	32-212°F	0.02°C	.04°F	100 ± 0.8°C ± 1.4°F		White		B
Temp. Sensor	ITP590	-188-150°C	-306-302°F	0.08°C	.14°F	± 0.3°C ± 0.5°F				C
	ITP590-1	-50-150°C	-58-302°F	0.05°C	.09°F	± 0.3°C ± 0.5°F				C

Frequency		Range	Resolution	Input Res.	Accuracy	Gain	Offset		Notes	Figure
	IDC5NP	0-100 Hz	0.04 Hz	1.8K	± 1Hz				Non-Polarized	I
	IDC5D	0-500 Hz	0.04 Hz	1.2K	± 1Hz					I
	IDC5Z	0-500 Hz	0.04 Hz	10K	± 1Hz	55	20		Bipolar input signal 0.5-32V	I
	IF2.5K-B	0.3-2.5 KHz	0.61 Hz		±0.1%FS	55	20		Magnetic pickups, ± 0.2-10V	E
	IF5K-B	0.3-5 KHz	1.22 Hz		±0.1%FS	55	20		Magnetic pickups, ± 0.2-10V	E
	IF10K-B	0.3-10 KHz	2.44 Hz		±0.1%FS	55	20		Magnetic pickups, ± 0.2-10V	E
	IF2.5K-L	0-2.5 KHz	0.61 Hz	10K	±0.1%FS	55	20			I
	IF5K-L	0-5 Khz	1.22 Hz	10K	±0.1%FS	55	20			I
	IF10K-L	0-10KHz	2.44 hZ	10K	±0.1%FS	55	20			I
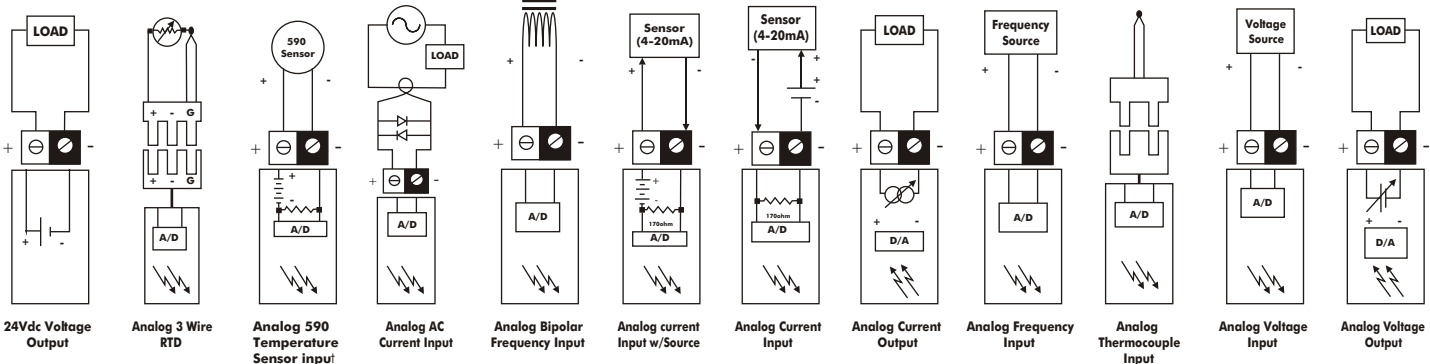
A LOAD — 24Vdc Voltage Output

B Analog 3 Wire RTD

C 590 Sensor — Analog 590 Temperature Sensor input

D LOAD — Analog AC Current Input

E Analog Bipolar Frequency Input

F Sensor (4-20mA) 170ohm — Analog current Input w/Source

G Sensor (4-20mA) 170ohm — Analog Current Input

H LOAD — Analog Current Output

I Frequency Source — Analog Frequency Input

J Analog Thermocouple Input

K Voltage Source — Analog Voltage Input
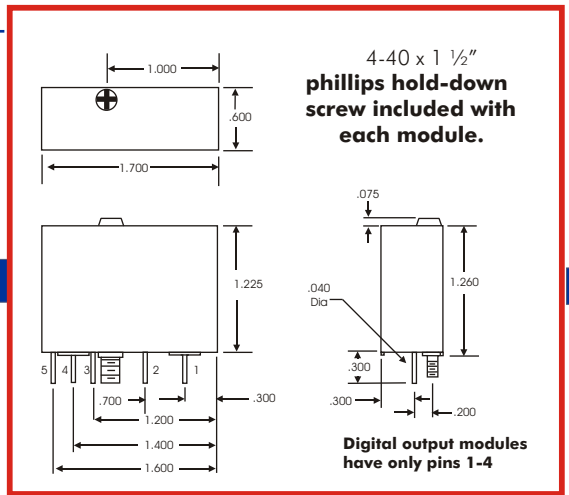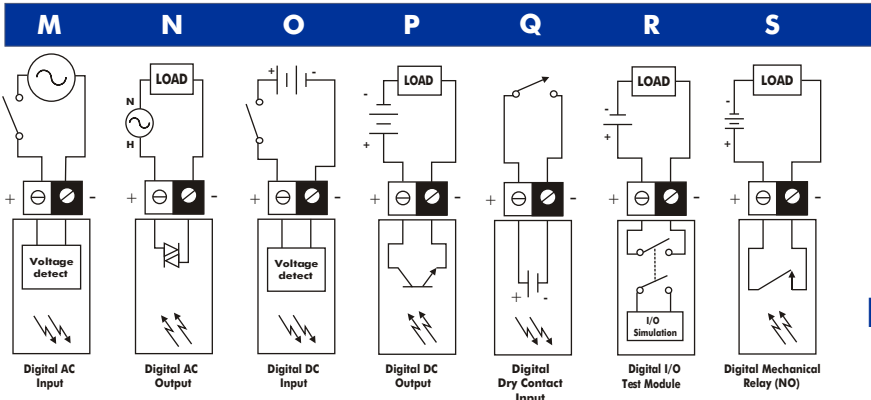
L LOAD — Analog Voltage Output

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A N A L O G   M O D U L E S

ANALOG OUTPUT MODULES		Range (12 bits)	Resolution nom. Ohms	Input Res. @25 C°	Accuracy Gain	Drift ppm/°C Offset		Connect Color	Notes	Figure
Analog Volts	OV5	0-5 Vdc	1.22 mVdc		0.2%FS	55	20		Provides output voltage	L
	OV10	0-10 Vdc	2.44 mVdc		0.2%FS	55	20		Provides output voltage	L
Analog Current	OI420	4-20 mAdc	3.91 uAdc		0.2%FS	55	20		Provides output current	H
Power Supply	SPS-1	24 Vdc open circuit; 30 mA max							Can provide loop power for II420	A

D I G I T A L   M O D U L E S

DIGITAL INPUT MODULES		Range max volts	Load Current, Amps Cont min	Surge	ON min	OFF max	Sat volts	OFF-to-ON Delay, mSec	ON-to-OFF	Input Res. nominal ohms	Label Color	dV/dt Static KV/uSec	Comm Pwr Factor	Leakage Current mA	Figure
							Volts								
AC	IAC5 [1,2]	140 rms	-	-	-	90 rms	25	-	20	20	22 K	Yellow				M
	IAC5A [1,2]	280 rms	-	-	-	180 rms	50	-	20	20	60 K	Yellow				M
DC	IDC5D [1,2]	32 dc	-	-	-	3 dc	1	-	0.2	0.4	1.8 K	White				O
	IDC5NP [1,2]	32 dc	-	-	-	10 dc	1	-	5	5	1.8 K	White				O
Contact	IDC5S											White				Q
Test	TI01	120 ac/dc	5	0				Manual	Manual		White				R

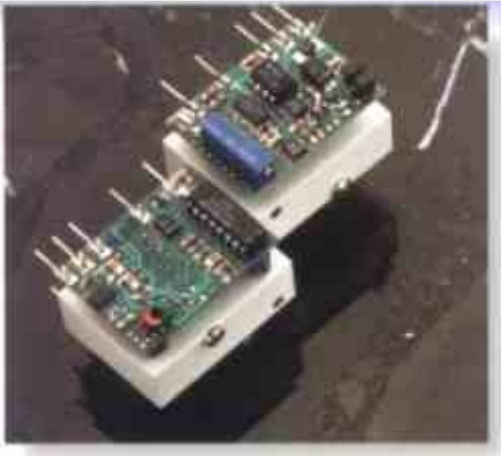| DIGITAL OUTPUT MODULES															
AC	OAC5 [1,2]	140 rms	3.5	0.03	80	24 rms		1.5	0.5Hz	0.5Hz		Black	3	0.5	2 rms	N
	OAC5A [1,2]	280 rms	2.5	0.03	80	24 rms		1.5	0.5Hz	0.5Hz		Black	3	0.5	4 rms	N
DC	ODC5 [1,2]	60 dc	3.5	-	5	3 dc		1.2	20	50		Red			1.5 dc	P
	ODC5A	200 dc	1	-	1.5	4 dc		1.8	75	750		Red			.01 dc	P
Contact	ODC5R	10 VA		0.5					500	600		Red				S
Test	TIO1	120 ac/dc		0					Manual	Manual		White				R

Notes: [1] UL File number Es8632 [4] One cycle
[2] Isolation 4,000 Vrms [5] One second
[3] 1 A @ 45 C, Derate 18mA/ C°

Digital modules are interchangeable with industry modules of the same type.

4-40 x 1 ½"
phillips hold-down screw included with each module.

Digital output modules have only pins 1-4

M   N   O   P   Q   R   S

Digital AC Input

Digital AC Output

Digital DC Input

Digital DC Output

Digital Dry Contact Input

Digital I/O Test Module

Digital Mechanical Relay (NO)

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