

Technical document

A /To:		Da/From:	Gino Bucciol Officina Stellare s.r.l. info@officinastellare.com
email:		Pag.:	
Fax :		Data/Date:	October 30th, 2013
Ogg/Subj:	Connectors Pinout	CC:	

Connectors pinout

DB15, Female on telescope chassis, PRIMARY MIRROR FUNCTIONS:

Note: connector identification on telescope chassis is PRIMARY

Pin 1 and Pin 9: Primary mirror fans, 12V, negative pole (-)

Pin 2 and Pin 10: Primary mirror fans, 12V, positive pole (+), max 1,5A

Note: we usually control the speed of fans with a 12V PWM power signal

Pin 3 and Pin 11 and Pin 4: Primary mirror heater, 12V, ground (-)

Pin 12 and Pin 5 and Pin 13: Primary mirror heater, 12V, positive (+), max 50W

Note: we usually control the heater with ON/OFF power signal

Pin 6: Primary Mirror Thermal Probe (DS1620 chip) power supply GND

Pin 14: Primary Mirror Thermal Probe (DS1620 chip) power supply +5V (few mA)

Pin 7: Primary Mirror Thermal Probe (DS1620 chip) communication CLK line

Pin 15: Primary Mirror Thermal Probe (DS1620 chip) communication RST line

Pin 8: Primary Mirror Thermal Probe (DS1620 chip) communication DQ line

Note: The DS1620 chip is installed directly (glued) on mirror back surface

DB15, Male on telescope chassis, SECONDARY MIRROR FUNCTIONS:

Note: connector identification on telescope chassis is SECONDARY

Pin 1: Secondary Mirror linear actuator stepper motor, Phase A, 12V max 0,6A

Pin 9: Secondary Mirror linear actuator stepper motor, Phase not(A)

Pin 2: Secondary Mirror linear actuator stepper motor, Phase B, 12V max 0,6A

Pin 10: Secondary Mirror linear actuator stepper motor, Phase not(B)

Note: motor is a 200 step/rev, the linear motion is 0,0079 mm/full step

Note: motor model HAYDON 57H4A-12-807, NEMA 23 size, two phases, bipolar

Pin 3 and Pin 11: Secondary Mirror heater, 12V, ground (-)

Pin 4 and Pin 12: Secondary Mirror heater, 12V, positive (+), max 15W

Note: we usually control the heater with ON/OFF power signal

Pin 5: Secondary Mirror Home Switch (farthest from Primary), Common contact

Pin 13: Secondary Mirror Home Switch (farthest from Primary), Normally Open contact

Note: switch will close at home position. It is a magnetic REED switch

Pin 6: Secondary Mirror Thermal Probe (DS1620 chip) power supply GND

Pin 14: Secondary Mirror Thermal Probe (DS1620 chip) power supply +5V (few mA)

Pin 7: Secondary Mirror Thermal Probe (DS1620 chip) communication CLK line

Pin 15: Secondary Mirror Thermal Probe (DS1620 chip) communication RST line

Pin 8: Secondary Mirror Thermal Probe (DS1620 chip) communication DQ line

Note: The DS1620 chip is installed (glued) directly on mirror back surface

DB9, Male on SH-1 electronic box, PRIMARY MIRROR SHUTTERS functions:

Note: connector identification on SH-1 chassis is ATC-02

Pin 1: Power Supply GND, negative pole (-)

Pin 2: Status of shutters, line **C** (see **Table 1** below), output from connector, TTL level signal

Pin 3: Status of shutters, line **O** (see **Table 1** below), output from connector, TTL level signal

Table 1

LINE C	LINE O	STATUS
0	0	SHUTTERS ERROR (BOTH LED ON)
1	0	SHUTTERS OPEN (GREEN LED ON)
0	1	SHUTTERS CLOSE (RED LED ON)
1	1	SHUTTERS RUNNING (BOTH LED OFF)

Pin 4: Power Supply GND, negative pole (-)

Pin 5: Power Supply 12V, positive pole (+), max 2,0A

Pin 6: N.C.

Pin 7: Control signal (input to connector), TTL level signal, normally high (5V)
Set pin 7 momentary low (0 V) to command OPENING OF SHUTTERS

Pin 8: Control signal (input to connector), TTL level signal, normally high (5V)
Set pin 8 momentary low (0 V) to command CLOSING OF SHUTTERS

Pin 9: N.C.