

ELM-35-4.2-18-C



Lens module specifications

Effective focal length	35	mm	
F/#	4.2	(fixed)	
Maximum sensor format	1.1	inch	
Maximum image circle (Φ)	18	mm	
Lifecycles (10-90% sinusoidal)	>1'000'000'000	cycles	
FOV	Diagonal	26	°
	Horizontal	21	°
	Vertical	15	°
Back Focal Length	17.526	mm	
Optical Distortion	< 0.05	%	
Pixel size recommended	3.45	µm	
Wavelength range	400-900	nm	
Relative illumination	> 93	%	
Max chief ray angle	13	°	
Working distance range	200 – infinity	mm	
Mount	C-mount		
Total Track Length	110.6	mm	
Dimension (Φ x L)	48 x 93.1	mm	

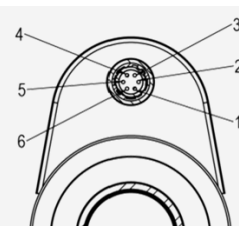
Focus tunable lens specifications

EL-12-30-TC-VIS-16D

Focal power range (@30°C) ³	-6 to +10	dpt	
Wavefront error (at 525 nm & 0 mA)	<0.15/<0.23	λRMS	
Optical axis vertical / horizontal			
Operating temperature	-20 to +65	°C	
Storage temperature	-40 to +85	°C	
Temperature sensor & memory	Yes		MAX31875R2TZS+T & CAT24C64C4CTR

Electrical specifications

Control current (typical)	-250 to +250	mA	
Absolute max. control current	-300 to 300	mA	
Power consumption for 5 dpt range (±60mA)	55	mW	
Max power consumption (@ 250 mA)	940	mW	
Motor coil resistance @ 25°C	15	Ω	
Absolute maximum voltage (coil)	6	V	
Absolute maximum voltage (memory & sensor)	4	V	

Hirose connector (HR10G-7R-6P)	Function	Sensor pins	
Pin 1	Control current +	-	
Pin 2	Control current -	-	
Pin 3	Ground	1-4	
Pin 4	Power (3.3V)	8	
Pin 5	I ² C SCL	6	
Pin 6	I ² C SDA	5	

Controller

The liquid lens is controlled with electrical current and must be operated by a suitable lens controller. Hirose cables and liquid lens controllers are sold separately. The following controllers are considered fully compatible with ELM-35-4.2-18-C:

- Optotune embedded controller ECC-1C
- Optotune industrial controller ICC-4C-500

Additional selection of controllers is available at <https://www.optotune.com/controllers>



Mechanical drawings

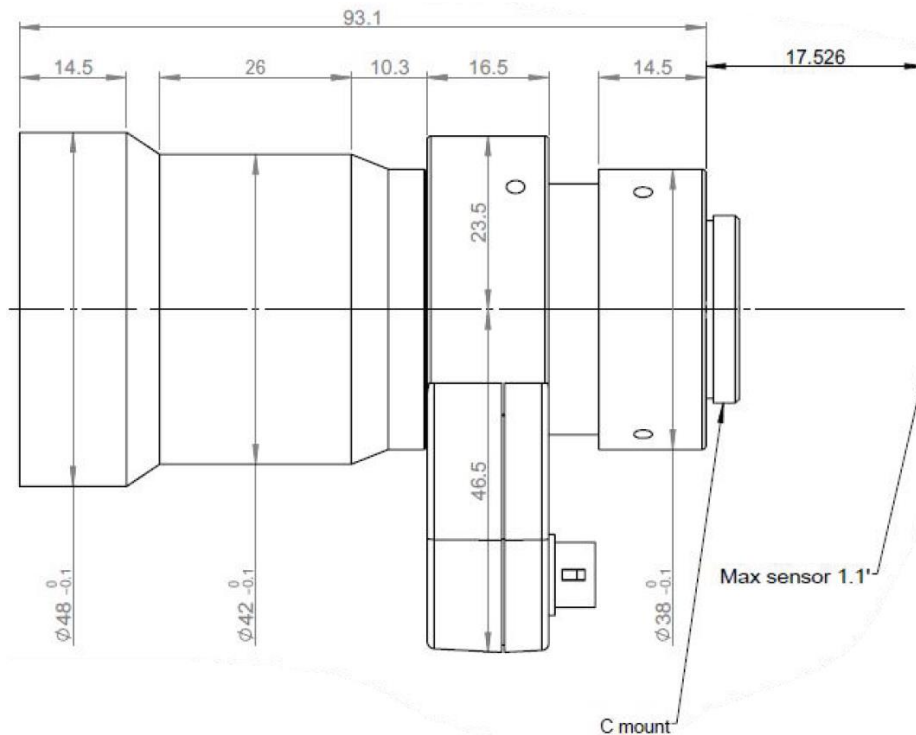


Figure 1: Mechanical drawing of the ELM-35-4.2-18-C

For more information on optical, mechanical and electrical parameters, please contact sales@optotune.com.