米朗 MIRAN®

中国工信部高精度传感器一条龙应用计划示范项目

国家级专精特新“小巨人”企业，国家级高新技术企业

中国工业强基重点产品，中国工信部传感器一条龙应用计划示范企业

称重传感器

Weighing Sensors



MCZ轮辐式称重传感器

MCZ SPOKE LOAD CELLS

- Demonstration project of one-stop application plan for high-precision sensors of Ministry of Industry and Information Technology of China
- National level specialized and special new "little giant" enterprise, national level high-tech enterprise
- Key products of strong industrial base in China, demonstration enterprise of sensor one-stop application plan of Ministry of Industry and Information Technology of China

MCZ轮辐式称重传感器
MCZ Spoke Load Cells

产品实物图Product Picture







产品概述Product Overview

米朗科技轮辐式称重传感器采用应变片在传感器内部组成惠斯通电桥，传感器在受到外力作用时会产生形变，引起紧贴在传感器内部的应变片阻抗成线性的增加或者减小。通过匹配的变送器模块，可将力学量转换成标准的4-20mA，0-5V，0-10V等模拟信号直接与自动控制设备PLC或计算机等连接。

轮辐式称重传感器采用合金钢表面镀镍，轮辐式弹性体拉式结构，具有低外形、抗偏载、精度高、强度好、安装方便、拉压输出对称性好等特点。

Miran Technology spoke load cell adopts strain gauges inside the sensor to form a Wheatstone bridge, the sensor will deform when it is subjected to external force, which will cause the impedance of the strain gauges tightly attached to the sensor to increase or decrease linearly. Through the matching transmitter module, the mechanical quantity can be converted into standard 4-20mA, 0-5V, 0-10V and other analog signals directly connected with automatic control equipment PLC or computer.

Spoke load cell is made of alloy steel with nickel-plated surface and spoke elastomer pulling structure, which is characterized by low profile, anti-bias load, high accuracy, good strength, easy installation and good symmetry of pulling and pressing output.

产品型号选型Product Model Selection

称重传感器
Load cells

MCZ - □□□KG

米朗科技称重传感器
Miran technology load cells

可选量程:0-50, 100, 200, 500KG
Selectable range:0-50, 100, 200, 500KG

称重传感器变送模块
Load cell transmission modules

MCZ - □□

米朗科技称重传感器
Miran technology load cells

输出方式:
output method:
A :4-20mA
V1: 0-5V
V2: 0-10V
V3: ±5V
V4: ±10V

电气连接Electrical Connection

传感器接线方式 sensor wiring method	红色 RED	黑色 BLACK	白色 WHITE	绿色 GREEN	屏蔽线SHIELDED WIRE
	电源正 power positive E+	电源负 power negative E-	信号正 signal positive S+	信号负 signal negative S-	接大地 connect to earth GND

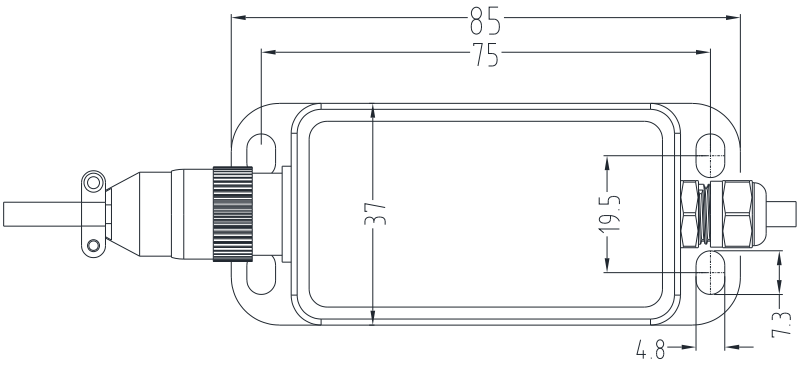
变送器模块接线方式 transmitter module wiring	棕色 BROWN	黑色 BLACK	蓝色 BLUE	屏蔽线SHIELDED WIRE
	电源正 power positive +12-24VDC	电源负 power negative 0V	模拟量输出 analog output	接大地 connect to earth GND

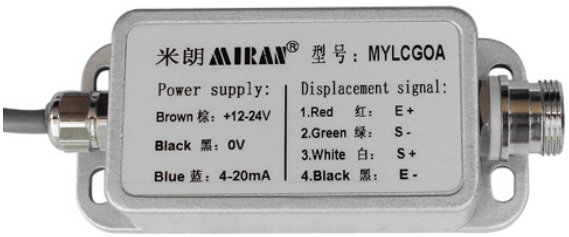
性能参数Performance Parameters

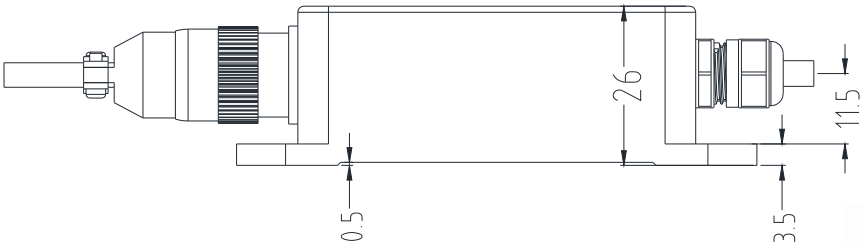
性能指标Performance indicators

量程 Range	0-50，100，200，500KG
灵敏度 Sensitivity	2.0±0.1mv/V
综合精度 Comprehensive Accuracy	±0.05%FS
非线性 Nonlinear	±0.03%FS
滞后误差 Lag Error	±0.03%FS
重复性误差 Repeatability Error	±0.03%FS
零点温度系数 Zero Temperature Coefficient	±0.02%FS/10℃
输入阻抗 Input Impedance	720±10Ω
输出阻抗 Output Impedance	700±10Ω
工作温度 Operating Temperature	-20~+80℃
允许过负荷 Allowable Overload	120%FS
防护等级 Protection Class	IP66
材质 Material	合金钢 alloy steel
蠕变 Creep	±0.03%FS/30min
变送模块输入 Transmission Module Input	MV极电压信号 MV pole voltage signal
变送模块供电 Transmission Module Power Supply	+12~24VDC
传感器激励电压 Sensor Excitation Voltage	+5~12DC

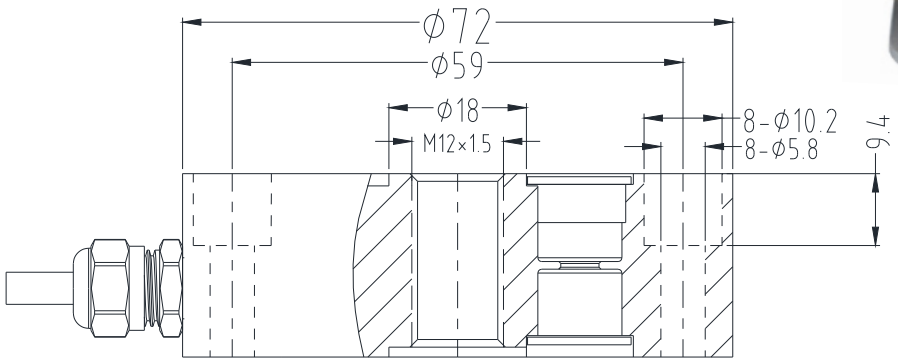
产品尺寸图Product Dimension Drawing

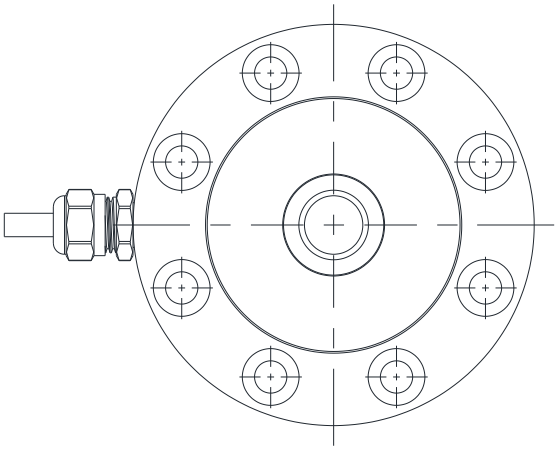










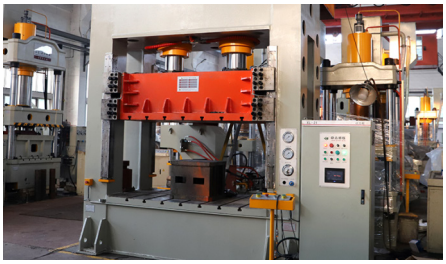




应用领域Areas of application



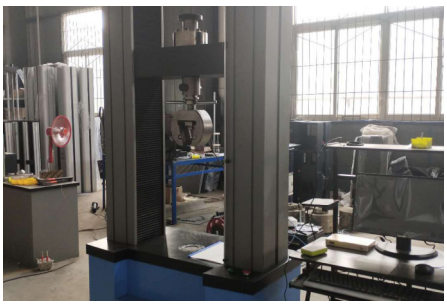
• 机械测量
Mechanical measurement



• 冷热液油压机
Hot & cold fluid hydraulic press



• 反应釜
Reaction kettle



• 电子万能试验机
Electronic universal testing machine



• 伺服电杠压装机
Servo electric bar press fitting machine



• 工业自动化
Industrial automation



• 料斗秤
Hopper scale



• 轨道衡
Railroad balance

• • •

称重传感器广泛应用于纺织、机械、工业系统中力的测量和天车秤、轨道衡、料斗秤、反应釜、冷热液油压机、电子万能试验机、伺服电杠压装机、各类衡器等各种称重、测力的工业自动化测量控制系统。

Load cell is widely used in textile, machinery, industrial system of force measurement and overhead scales, rail scales, hopper scales, reaction kettle, hot and cold liquid hydraulic presses, electronic universal testing machine, servo electric bar press, all kinds of scales and other kinds of weighing, force measurement and control system of industrial automation.



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质量第一 Quality First

用户至上 Customer First

诚信为本 Credit First

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（尤其是在尺寸方面要求特别严格的，或者在产品实物没收到之前，就要先在自己设备上加工做好安装孔位和确定安装空间位置的，要特别注意,要在购买前3天内与我们书面再次确认好产品的实际尺寸，以免造成不必要的返工等损失，若没有在购买前3天内与我们书面确认尺寸而造成后续安装困难等损失，我司不予承担，最终尺寸要以产品实物为准。）

将致力于位移、物位、角度等测控领域

Will be committed to the field of displacement, level, angle measurement and control

为客户提供一站式解决方案的产品与服务

Products and services that provide one-stop solutions for our customers

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20260401-称重传感器彩页
20260401 - weighing sensor brochure

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